STATE HISTORY AND CONTEMPORARY CONFLICT: EVIDENCE FROM SUB-SAHARAN AFRICA*

Emilio Depetris-Chauvin†

First Version: August 2013 This Version: January 2015

Abstract

I examine empirically the role of historical political centralization on the likelihood of contemporary civil conflict in Sub-Saharan Africa. I combine a wide variety of historical sources to construct an original measure of long-run exposure to statehood at the sub-national level. I then exploit variation in this new measure along with geo-referenced conflict data to document a robust negative relationship between long-run exposure to statehood and contemporary conflict. From a variety of identification strategies I provide evidence suggesting that the relationship is causal. I argue that regions with long histories of statehood are better equipped with mechanisms to establish and preserve order. I provide two pieces of evidence consistent with this hypothesis. First, regions with relatively long historical exposure to statehood are less prone to experience conflict when hit by a negative economic shock. Second, exploiting contemporary individual-level survey data for 18 Sub-Saharan countries, I show that within-country long historical statehood experience is linked to people's positive attitudes toward state institutions and traditional leaders.

*I would like to thank David Weil, Pedro Dal Bó, and Stelios Michalopoulos for their guidance and encouragement on this project. Also, I wish to thank Martin Fiszbein, Oded Galor, Boris Gershman, Brian Knight, Alejandro Molnar, Ömer Özak, Louis Putterman, participants of Macroeconomics Lunch and Macroeconomics Seminar at Brown University, seminar participants at Universidad de San Andres, NEUDC 2013, Boston-Area Working Group in African Political Economy at the Institute for Quantitative Social Science (Harvard University), UNC at Chapel Hill, Notre Dame University, FGV-EPGV (Rio de Janeiro), FGV-EESP (Sao Paulo), ITAM, Universidad de los Andes, LACEA Sao Paulo 2014, and Southern Methodist University for comments and helpful discussions. I am also grateful to Gordon McCord, Stelios Michalopoulos, and Ömer Özak for sharing data, Nickolai Riabov and Lynn Carlson for computational assistance with ArcGIS and R, and Santiago Begueria for helpful discussions and suggestions regarding the Standardized Precipitation Evapotranspiration Index. Carlos Molina Guerra provided excellent research assistanse at the tail end of this project. All errors are my own.

†Universidad de Los Andes, Department of Economics. Email: e.depetris@uniandes.edu.co

1 Introduction

Civil conflict imposes enormous costs on a society. In addition to lives lost as a direct result of violent confrontations, there may be persistent negative consequences to health and social fragmentation. Economic costs extend beyond short-term disruption of markets, as conflict may also shape long-run growth via its effect on human capital accumulation, income inequality, institutions, and culture. Not surprisingly, understanding the determinants of civil conflict has been the aim of a growing body of economic literature.[1]

The case of Sub-Saharan Africa has received considerable attention for the simple reason that civil conflict has been particularly prevalent in this part of the world; over two thirds of Sub-Saharan African countries experienced at least one episode of conflict since 1980. Many scholars have pointed to civil conflict as a key factor holding back African economic development (see, for example, Easterly and Levine 1997).

In this paper I explore the relationship between the prevalence of modern civil conflict and historical political centralization. Specifically, I uncover a within-country robust negative relationship between long-run exposure to statehood and the prevalence of contemporary conflict. My approach of studying a historical determinant of modern civil conflict is motivated by the empirical literature showing evidence on the importance of historical persistence for understanding current economic development (see Galor 2011; Nunn 2013; and Spoloare and Wacziarg 2013 for extensive reviews). My paper draws on a strand of this literature which documents that traditional African institutions not only survived the colonial period but that they still play an important role in modern African development (Gennaioli and Rainer, 2007; and Michalopoulos and Papaioannou, 2013, among others).

Why would the long history of statehood matter for contemporary conflict? Similarly to Persson and Tabellini (2009)'s idea of "democratic capital", I argue that the accumulation of experience with state-like institutions may result in an improved state capacity over time.[2] Therefore, regions with long histories of statehood should be better equipped with mechanisms to establish and preserve order. These institutional capabilities can be manifested, for example, in the ability to negotiate compromises, allocate scarce resources, and mitigate commitment problems, the existence of traditional collective organizations and legal courts

[1] Blattman and Miguel (2010) provide an extensive review and discussion on the literature of civil conflict, including the theoretical arguments and salient empirical findings on the causes and consequences of civil conflict.

[2] State capacity can be broadly defined as the abilities acquired by the state to implement a wide range of different policies (Besley and Persson 2010).

to peacefully settle differences over local disputes, or even a stronger presence of police force. As a result, regions with long history of statehood should experience less conflict.

A key aspect of my approach is to exploit within-country differences in the prevalence of modern conflict and its correlates. I take my empirical analysis to a fine sub-national scale for several reasons. First, conflict in Africa is often local and does not extend to a country's whole territory.[3] Second, there is arguably large within-country heterogeneity in historical determinants of conflict, including historical exposure to state institutions. Given that modern borders in Sub-Saharan Africa were artificially drawn during colonial times without consideration of previous historical boundaries (Green, 2012), substantial heterogeneity in location histories and people characteristics persists today within those borders. Therefore, the aggregation of these characteristics at the country level averages out a rich source of heterogeneity. Third, other determinants of conflict that have previously been highlighted in the literature, such as weather anomalies or topography, are in fact geographical and location-specific. Fourth, exploiting within-country variation in deeply-rooted institutions allows me to abstract from country-level covariates, such as national institutions or the identity of the colonial power that ruled the country.

Pre-colonial Sub-Saharan Africa comprised a large number of polities of different territorial size and varying degrees of history of political centralization (Murdock, 1967). At one extreme of the spectrum of political centralization were large states, such as Songhai in modern day Mali, which had a king, a professional army, public servants and formal institutions such as courts of law and diplomats. On the other extreme, there were groups of nomadic hunter-gatherers with no formal political head such as the Bushmen of South Africa. Some centralized polities were short-lived (e.g., Kingdom of Butua in Modern day Zimbabwe), some mutated over time (e.g., Songhai), and some still persist today (e.g., Kingdom of Buganda). Historical political centralization varies even within countries. Consider, for example, the case of Nigeria, where the Hausa, the Yoruba, and the Igbo represent almost 70 percent of the national population and have quite different histories of centralization. Unlike the Hausa and Yoruba, the Igbo had a very short history of state centralization in pre-colonial time despite having settled in southern Nigeria for centuries.

In order to account for this heterogeneity in historical state prevalence, I develop an original measure which I refer to as the State History Index at the sub-national level. For this purpose, I combine a wide variety of historical sources to identify a comprehensive list of his-

[3] Raleigh et al (2009) argue that civil conflict does not usually expand across more than a quarter of a country's territory.

torical states, along with their boundaries and chronologies. In its simplest version, my index measures for a given territory the fraction of years that the territory was under indigenous state-like institutions over the time period 1000 - 1850 CE. I then document a within-country strong negative correlation between my state history index and geo-referenced conflict data. My OLS results are robust to a battery of within-modern countries controls ranging from contemporaneous conflict correlates and geographic factors to historical and deeply-rooted plausible determinants of modern conflict.[4] Moreover, I show that these results are not driven by historically stateless locations, influential observations, heterogeneity across regions, or the way conflict is coded.

Given the obvious limitations in documenting historical boundaries in Sub-Saharan Africa, I show that the documented negative relationship between state history and modern conflict still holds with another alternative measure accounting for historical exposure to centralized institutions. To do so, I exploit time and cross-sectional variation from a panel of historical African cities. To the extent that kingdoms and empires tended to have a large city as political center, I use time-varying proximity to the closest large city during the time period 1000-1800 CE to construct an alternative measure of the degree of influence from centralized polities. Using this new measure as a proxy for state history, I obtain similar results which provides additional support to my main hypothesis. Using variation from the this new proposed proxy to instrument my original measure of state history, I present 2SLS estimates which are consistent with the idea that measurement error in my state history index introduces a sizable downward bias.

Nonetheless, this uncovered robust statistical association does not necessarily imply causality. Indeed, history is not a random process in which long-run exposure to statehood has been randomly assigned across regions. The historical formation and evolution of states is a complex phenomenon. Factors underlying the emergence and persistence of states may still operate today. To the extent that some of those factors are unobserved, isolating the causal effect of historical statehood on conflict is a difficult task. I argue, however, that it is unlikely that my OLS results are fully driven by omitted factors. Following Altonji, Elder, and Taber (2005)'s approach I show that the influence of unobservables would have to be considerable larger than the influence of observables to explain away the uncovered correlation.

To determine whether the uncovered empirical relationship between state history at the local

[4] For instance, the results are not particularly driven by, inter alia, the confounding effects of genetic diversity (proxied by migratory distance from the cradle of humankind in Ethiopia), ecological diversity or intertemporal temperature volatility.

level and conflict prevalence is, in fact, causal I pursue an instrumental variable approach. Finding a source of exogenous variation in state history for all the Sub-Saharan region is a difficult ask, therefore I focus in a particular country: Uganda. I exploit plausible exogenous variation in the distance to an archaeological site where historians locate the core (i.e: Bigo Bya Mugenyi) of the, somehow mythological, Empire of Kitara during the Bacwezi dynasty; the first known attempt of political centralization in pre-colonial Uganda. The high uncertainty surrounding the Kitara empire prevent me of taking it into account for my measure of state history. Nonetheless, several kingdoms in the region of the Great lakes such as Buganda, Toro, Rwanda, Bunyoro, and Ankole claim inheritance from the Bacwezi dynasty. It is believed that the Bacwezi were a ruling pastoral clan, not indigenous to the region, who moved away from Bigo Bya Mugenyi after two generations. I interpret this brief settling of an outsider civilization as an arrival of an innovation (i.e; centralized institutions) which later spread to adjacent regions. The migratory distance from Bigo Bya Mugenyi, a deserted savannah wilderness located near the border between the kingdoms of Buganda and Ankole, strongly predicts my measure of state history at the sub-national level. The IV point estimates are qualitatively similar to my previous OLS estimates suggesting a strong causal effect of a location's historical exposure to centralized institutions on its conflict prevalence.

To further support the case that state history has left its marks on the patterns of contemporaneous conflict, I present two additional pieces of evidence consistent with my main hypothesis. First, I show that regions with relatively long historical exposure to statehood are remarkably less prone to experience conflict when hit by a negative agricultural productivity shock. Second, I present empirical evidence on potential underlying mechanisms by exploiting contemporary individual-level survey data for 18 Sub-Saharan countries and showing that long history of statehood is associated with people's positive attitudes towards state institutions. In this sense, I show that key state institutions are regarded as trustworthy by people living in districts with long history of statehood. Moreover, I also show that support for local traditional leaders is also significantly larger in those districts. These results are reconfirmed in an instrumental variable approach for Uganda. Finally, none of these individual-level results is driven by unobservable ethnic characteristics (i.e., estimates are conditional on ethnic identity fixed effects), which constitutes a striking result and suggests that the institutional history of the location where people currently live matters for people's opinion about state institutions independently of the history of their ancestors.

2 Relationship with the Existing Literature

This paper belongs to a vibrant body of work within economics tracing the historical roots of contemporary development. Specifically, my work is related to economic research on the relationship between institutional history and contemporary outcomes; a line of research which originates in Engerman and Sokoloff (1997), La Porta e al. (1999), and Acemoglu, Johnson, and Robinson (2001). In particular, this paper is related to the literature examining the developmental role of state history (Bockstette, Chanda, and Putterman 2002, Hariri 2012, and Bates 2013). It is methodologically related to Bockstette, Chanda, and Putterman (2002) which introduces a State Antiquity Index at the country level.[5] I contribute to the related literature by constructing an original measure at the sub-national level.

Particularly in the context of Africa, my work is also related to works on the impact of pre-colonial political centralization on contemporary outcomes (Gennaioli and Rainer, 2007; Huillery, 2009, Michalopoulos and Papaioannou, 2013). More importantly, my work contributes to the line of research on how historical factors have shaped the observed pattern of conflict during the African post-colonial era (Michalopoulos and Papaioannou 2011, and Besley and Reynal-Querol 2012).[6] Of most relevance to my work is Wig (2013) who finds that ethnic groups with high pre-colonial political centralization and that are not part of the national government are less likely to be involved in ethnic conflicts. While attempting to address a similar question on how historical political centralization may prevent conflict, there are two main differences between Wig (2013) and my work. First, unlike Wig (2013) who only focuses on ethnic political centralization recorded by ethnographers around the colonization period, I trace the history of statehood further back in time to account for differences on long-run exposure to statehood. Doing so, I find that not only the extensive but also the intensive margin of prevalence of historical institutions matters crucially to understand contemporary conflict. Second, I pursue a variety of identification strategies to provide evidence suggesting that the relationship between historical centralization and conflict is causal. .Third, I provide evidence of potential mechanisms underlying my reduced form findings by documenting a strong relationship between state history and positive

[5]Bockstette, Chanda, and Putterman (2002) introduces the State Antiquity Index and shows that it is correlated with indicators of institutional quality and political stability at the country level. Borcan, Olsson, and Putterman (2013) extends the original index back to 4th millennium BCE.

[6]Michalopoulos and Papaioannou (2011) exploits a quasi-natural experiment to show that civil conflict is more prevalent in the historical homeland of ethnicities that were partitioned during the scramble for Africa. Besley and Reynal-Querol (2012) provides suggestive evidence of a legacy of historical conflict by documenting a positive empirical relationship between pattern of contemporary conflict and proximity to the location of recorded battles during the time period 1400 - 1700 CE.

attitudes toward state institutions and traditional leaders.[7]

By showing how trust in local policy makers is linked to state history of a place, my paper also relates to previous work studying deeply-rooted determinants of different dimensions of trust. In this sense, it has been shown that modern level of trust can be linked to different historical events such as the slave trade (Nunn and Wantchekon 2012), historical prevalence of conflict (Besley and Reynal-Querol 2012), historical changes in ruling nation (Jancec 2013), or even linked to historical climate volatility (Durante 2011) and events originated during the migration of humans out of Africa tens of thousands of years ago (Arbatli, Ashraf, and Galor 2013).

My work contributes to the literature on the interaction between state capacity (or contemporary institutions in general) and conflict (Fearon and Laitin 2003, Besley and Persson 2008, among others).[8] In particular, my paper provides empirical evidence that long history of pre-colonial state capacity at the sub-national level may reduce the likelihood of civil conflict in a region of the world where national governments have limited penetration (Michalopoulos and Papaioannou 2013c). It is worthwhile to note that most of the empirical work on the link between contemporary institutions (in particular state capacity) and conflict is conducted across countries. Methodologically, I depart from this approach. Rather than focusing on contemporary institutional differences at the national level, I investigate the role of deeply-rooted institutional characteristics at the sub-national level in shaping state legitimacy and the propensity to engage in conflict. Finally, my work is also methodologically related to recent literature in economics that takes a local approach to conflict (Besley and Reynal-Querol, 2012; Harari and La Ferrara, 2012).[9]

3 A New Index of State History at the Sub-national Level

3.1 Overview of the Construction Procedure

In this section I present an overview of the construction procedure of my new index of state history at the sub-national level. Two dimensions are relevant for my purpose; the time

[7] In addition, I do not restrict my analysis to ethnic conflict; rather, I study a more general definition of civil conflict.

[8] In addition to state capacity, the role of cohesive political institutions (Besley and Persson 2011, Collier, Hoeffler, and Soderbom 2008) has been also empirically studied.

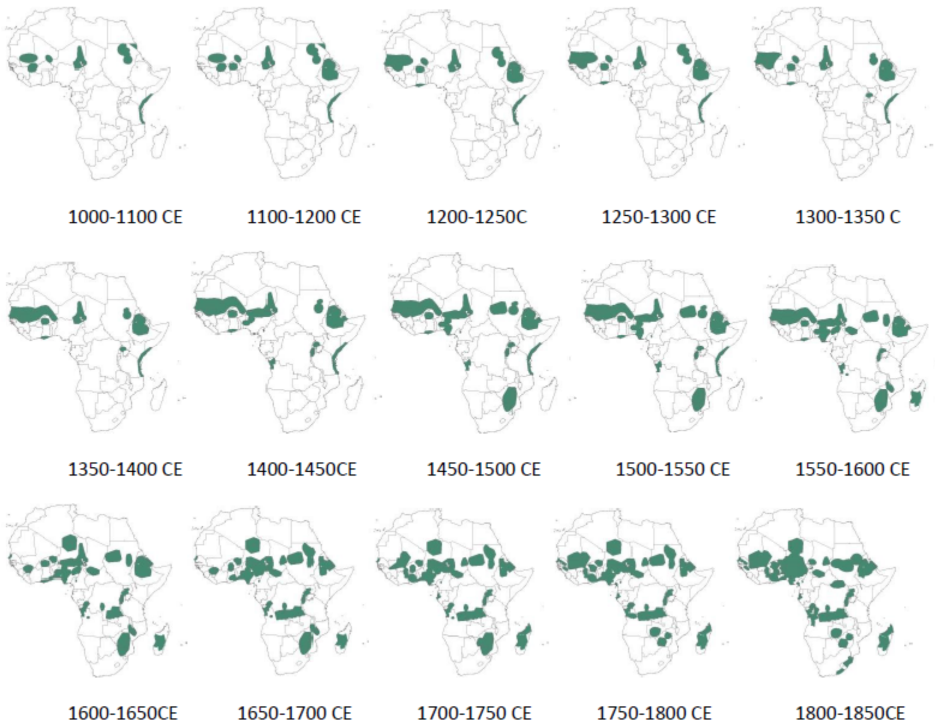
[9] In revealing how a deeply-rooted factor relates to contemporary conflict, this paper also connects to recent work by Arbatli, Ashraf, and Galor (2013), which shows that genetic diversity strongly predicts social conflict.

period to consider for the computation of the index and the definition of a geographical location for which the index is calculated. That is, I have to define the units of analysis that will determine the scope of both the extensive and the intensive margin of state history.

Time period under analysis. I focus on the period 1000-1850 CE for two reasons. First, the aim of my research is to examine the legacy of indigenous state history, thus I consider only pre-colonial times. I am not neglecting, however, the importance of the colonial and post-colonial periods to understand contemporary pattern of conflict. In fact, the persistence of most of the indigenous institutions during and after the colonial indirect rule experience represents an important part of the main argument in this paper. Second, I ignored years before 1000 CE due to the low quality of historical information and to the fact that no much known variation on historical states would have taken place in Sub-Saharan Africa before that period.[10] I then follow Bockstette, Chanda, and Putterman (2002), and divide the period 1000-1850 CE in 17 half-centuries. For each 50 years period I identify all the polities relevant for that period. I consider a polity to be relevant for a given half-century period if it existed for at least twenty six years during that fifty-years interval. Therefore, I construct seventeen cross sections of the historical boundaries previously identified in the pre-colonial Sub-Saharan Africa. Figure 1 displays the evolution of historical map boundaries over the period 1000-1850 CE.

[10]There would have been few cases of state formation before 1000 CE in Sub-Saharan Africa: the Aksum and Nubian Kingdoms (Nobadia and Alodia) in the Ethiopian Highland and along the Nile river, the Siwahalli City-States in East Africa, Kanem in Western Chad, and Ghana and Gao in the West African Sahel (Ehret 2002).

Figure 1: Evolution of Historical Map Boundaries (1000 - 1850 CE)



Definition of geographic unit. My empirical analysis focuses on several different definitions for sub-national level (i.e: geographical unit of observation). In this paper I focus on districts, counties, historical homelands of ethnic groups and also in 2 degrees by 2 degrees grid cells, which are artificial constructions. Given these different levels of aggregation to compute my index of state history, I start by constructing the index at a sufficient fine level. Therefore, I divide Sub-Saharan Africa in 0.1 by 0.1 degree pixels (0.1 degree is approximately 11 kilometers at the equator). I then dissolve the compiled historical maps into 0.1 by 0.1 degree pixels taking the value 1 when an historical state intersects the pixel, and 0 otherwise.[11] For a given level of aggregation i, its state history value would be determined by:

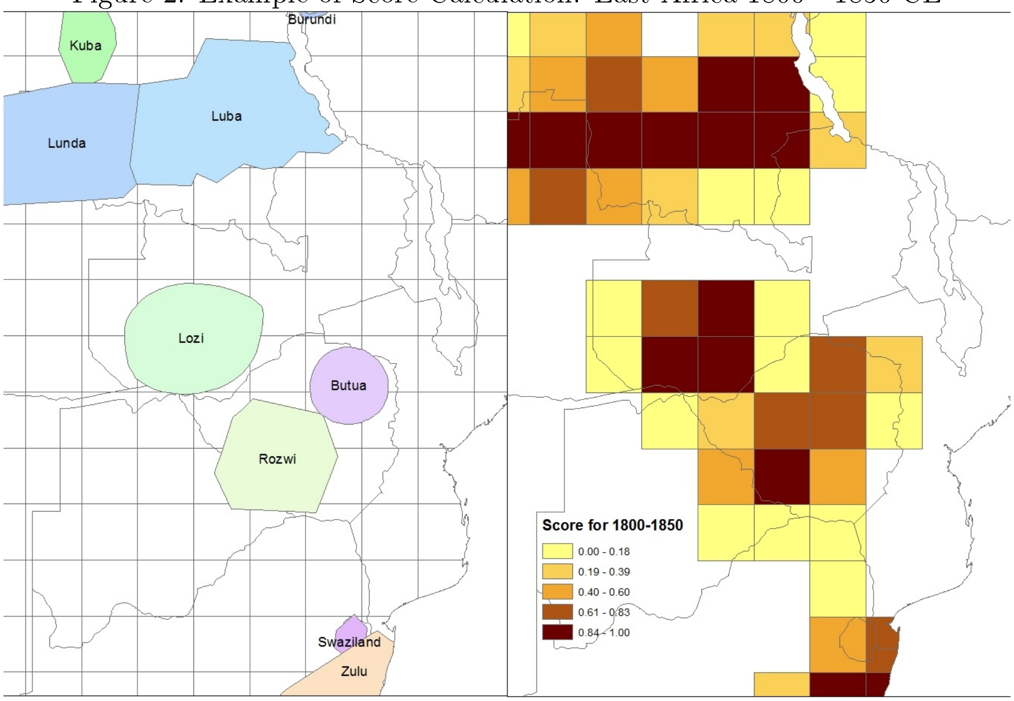
$$State\ History_i = \sum_{1000}^{1850} \beta_t \times S_{i,t} \qquad \text{with } t = 1000, 1050, 1100, ..., 1850$$

where, $S_{i,t} = \frac{\sum \theta_{p,t}}{P}$ is the score of i in period t, with $\theta_{p,t}$ taking the value 1 if the pixel p is intersected by the map of an historical state in period t, 0 otherwise; and P being the number

[11] Therefore, the pixel will take a value 1 even when an overlap of two historical states exists. That is, a pixel intersected multiple times is considered only once.

of pixels in i.[12] The variable β is the discount factor. Since I do not have any theoretical reason to pick a particular discount factor, I base most of my analysis in a discount factor of 1. Figure 2 shows an example of the calculation of the score in East Africa circa 1800 when the level of aggregation is a grid cell of 2 degree by 2 degree.

Figure 2: Example of Score Calculation. East Africa 1800 - 1850 CE



There are three crucial and challenging pieces in the construction of the index. First, my procedure requires the compilation of a comprehensive list of historical states. Second, the boundaries of those historical states have to be identified, digitized and georeferenced. Third, an even more difficult task is to account for potential expansions and contractions of those boundaries over time.

Identifying historical states. I use a wide variety of sources to identify historical maps of states in pre-colonial Sub-Saharan Africa for the time period 1000-1850 CE.[13] Identifying

[12]Therefore, the score $S_{i,t}$ denotes what fraction of the territory of i is under an historical state in the period t.

[13]I define Sub-Saharan Africa to all the geography contained within the borders of the following countries: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo DRC, Congo, Cote d'Ivoire, Ethiopia, Eritrea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia, and Zimbabwe.

what constituted a state in the remote past of Africa is not a easy task. Of course, historical records are incomplete and some time the demarcation between tribes and kingdoms was not that clear. Further, heterogeneity in political structures was indeed very large in pre-colonial Africa. Nonetheless, my operative definition of states includes city-states, kingdoms, and empires and it is built upon the conception of a centralized power exercising influence over some periphery. That is, a historical state is the result of the amalgamation of smaller settlement units in a relatively large unit of territory ruled by centralized political head. I consider the existence of an army as a necessary but not sufficient condition to constitute a state. For instance, the Galla people (also known as Oromo) in modern Ethiopia developed states only two hundred years after conquering Ethiopian soil (Lewis, 1966). Before founding the five Gibe kingdoms, Galla people were governed at the village level. Although coordinated in the competition against neighboring kingdoms, each local independent group was under its own leader. Thus, I only considered the Galla's polities once the Gibe kingdoms were established in late eighteenth century. Note that my notion of state is not necessary a proxy for societal complexity.[14] Non-political centralized complex societies such as the Igbo in modern Nigeria, which had a complex system of calendars (̀Oguafo) and banking (Isusu), are not considered as historical states. In fact, only after conforming the trade confederacy in late 17th century, I consider the Aro, a subgroup of the Igbo, to be taken into account for the computation of my index.

The starting point then was to identify the historical states referenced in the version 3.1 of the State Antiquity Index introduced in Bockstette, Chanda, and Putterman (2002). I complement this initial list with a variety of additional sources (Ajayi and Crowler 1985, Barraclough 1979, Vansina 1969, McEvedy 1995, Murdock 1967, and Ehret 2002). Once I complete the list of all the polities to be taken into account in the computation of my state history index, I document approximate dates of foundation and declination of each polity. Table A.1 in the appendix includes the complete list of polities (with their relevant dates) used in the computation of my index. Note that I only consider indigenous states in my analysis. Therefore, I do not consider foreign states such as the Portuguese colony in the coastal strip of Angola (present for more than four hundred years) or occupations such as Morocco's in Songhai's territory at the beginning of the seventeenth century.

Compilation of historical maps. The following task was to identify, digitize and georeference the maps of the historical states on the list. Some of the maps were already digitized and

[14]Note also that stateless does not imply either absence of laws or existence of a small societies. The Nuer of the Souther Sudan and the Tiv of Nigeria serve as good examples.

some of them were also georeferenced.[15] When a map of a given polity was available for more than one period of time, I took into account all of them for my analysis. This helps me to partially account for expansions and contractions of states' geographic influence over time.[16] Some judgment was needed when two sources disagreed in the way the boundaries of a historical state were recorded for a similar historical period. I kept the map I found more reliable.[17] I abstract for now from the difficulties (and consequences) of defining historical map boundaries; I discuss this issue below in more detail.

Cross-Sectional Variation. Figure 3 displays the cross-sectional variation of my State History Index based on grid-cell aggregation (with a discount factor of 1). Sub-Saharan Africa is divided in 558 grid cells of 2 degree by 2 degree. Following Bockstette, Chanda, and Putterman (2002), I rescale the index by dividing all the values by the maximum possible value; therefore $State\ History_i \in [0, 1]$.

Roughly one third of Sub-Saharan Africa has no state history before 1850 CE. State history is more prevalent in the north, particularly in western part of Sahel, the highlands of Ethiopia, and the region along the Nile river. In this sense, proximity to water is a relevant factor to explain the historical presence of states. In particular, proximity to major rivers such as Niger, Benue, Senegal, Volta, Congo, and Zambezi; and great lakes such as Victoria, Tanganyika, Malawi, and Chad correlates with high values of the index. Almost no state history is documented in the African rainforest and South-West Africa.

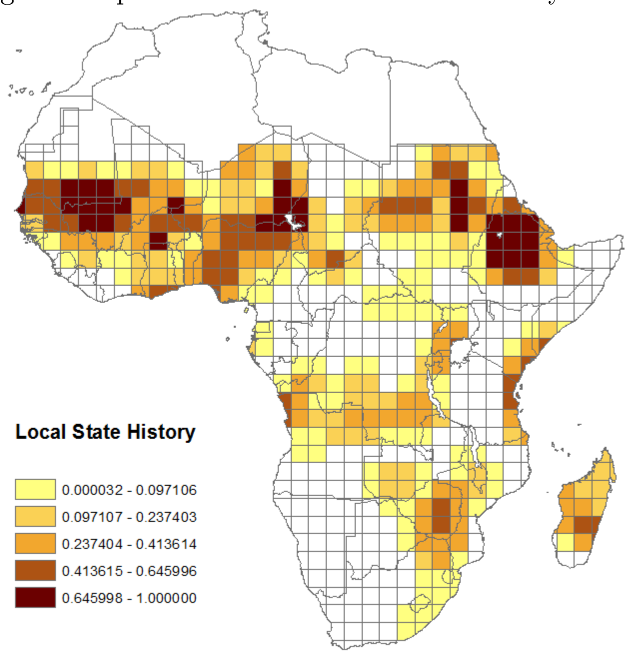
Major sources of measurement error. Any attempt to rigorously define state boundaries in pre-colonial Africa is doomed to imperfection for several reasons. Indigenous historical records are scarce in Sub-Saharan Africa; and most of the modern reconstruction of African history relies upon account by travelers, traders and missionaries (particularly during the nineteenth century), the transmission from oral history, or analysis of archaeological sites. Further, this scarcity of historical records exacerbates the farther south or away from the coast one looks. Most importantly perhaps, almost no indigenous map making existed

[15]For instance, some maps from McEvedy's (1995) Atlas of African History were already digitized and georeferenced by AfricaMap, a project developed by the Center for Geographic Analysis at Harvard. After checking for inconsistencies with original sources and correcting irregularities in border drawings, I also considered some maps digitized by the ThinkQuest Project of The Oracle Education Foundation.

[16]For instance, I was able to document how political influence of Songhai's people evolved over my period of analysis. Figure 1 includes the first Songhai polity (pre-imperial) during the time period c.1000-c.1350CE around the city of Gao, its expansion consistent with the establishment of the Songhai Empire from c.1350 CE to c.16000CE and the late formation of Dendi Kingdom as a result of the Morrocan invasion and declination of the empire in c.1600 CE.

[17]In some cases I made the decision based on the consistency with natural borders like majors rivers or elevations.

Figure 3: Spatial Distribution of State History Index



in pre-colonial Africa (Herbst, 2000). Regardless of the problems due to lack of historical records, the extension of authority to the periphery in pre-colonial Africa was itself irregular, contested, and weak. As argued by Herbst (2000), boundaries were, in consequence, a reflection of this difficulty of broadcasting power from the center. Therefore, the lines of demarcation for boundaries of any historical state are, by construction, inevitably imperfect. As a matter of fact, I find different historical atlases displaying quite dissimilar maps for the same polity under similar period of time. Nevertheless, while bearing in mind the aforementioned caveat, documenting imperfect boundaries provides at least a useful starting point for my empirical analysis.

The aforementioned imperfection in the demarcation of boundaries represents a source of measurement error affecting my econometric analysis. There is little reason to believe that this particular measurement error is correlated with the true measure of state antiquity. Therefore, this would represent a case of classical errors-in-variables that would introduce an attenuation bias in the OLS estimates of the relationship between historical state prevalence and conflict.

An additional source of measurement errors in my state history variable will result from the introduction of an upper bound when computing the index. When considering only historical states starting 1000 CE, I am excluding many years of state history in region with long history of statehood. For instance, I am omitting more than 250 years of the Ghana empire in West Africa. Further, the Kingdom of Aksum, existing during the period 100-950 CE and located in modern day Eritrea and Ethiopia, was not considered in the computation of the state history index. Since locations with some history of state before 1000 CE tend to present high values of my index, the introduction of the bound in the period of analysis for its computation would tend to underestimate the long run exposure to statehood for some regions. Therefore, an additional upward bias in the OLS estimates is introduced. It is precisely for the sake of alleviating the resulting biases due to measurement error in my data what will provide a key motivation for the implementation of an instrumental approach later on.

4 Empirical Relationship between State History and Contemporary Conflict

4.1 Sources and Description of Conflict Data

In this paper I exploit georeferenced conflict event data to construct different measures of conflict prevalence at the sub-national level. There are two leading georeferenced conflict datasets for Sub-Saharan Africa, the Uppsala Conflict Data Program Georeferenced Events Dataset (UCDP GED, from now on) and the Armed Conflict Location Events Dataset (ACLED, from now on). For reasons I detail below, the core of my analysis is based on UCDP GED. However, I show that the main results are not dependent on the choice of the conflict dataset.

The UCDP GED, version 1.5 (November 2012) provides geographically and temporally disaggregated data for conflict events in Africa (for a full description of the dataset, see Sundberg and Melander, 2013). Specifically, UCDP GED provides the date and location (in latitude and longitude) of all conflict events for the period 1989-2010. A conflict event is defined as "the incidence of the use of armed force by an organized actor against another organized actor, or against civilians, resulting in at least one direct death in either the best, low or high estimate categories at a specific location and for a specific temporal duration" (Sundberg et al, 2010). The dataset comprises of all the actors and conflicts found in the aggregated, annual UCDP data for the same period. UCDP GED traces all the conflict events of "all dyads and actors that have crossed the 25-deaths threshold in any year of the UCDP annual data" (Sundberg et al, 2010). Note that the 25-deaths threshold is the standard coding to define civil conflict and that the definition for dyad does not exclusively need to include the government of a state as a warring actor. Finally, also note that once a dyad crossed the 25-deaths threshold, all the events with at least one death are included in the dataset. That is, these events are included even when they occurred in a year where the 25-deaths threshold was not crossed and regardless of whether they occurred before the year in which the threshold was in fact crossed. The UCDP GED contains 21,858 events related to approximately 400 conflict dyads for the whole African continent. More than 50 percent of those events include the state as one of the warring actors (although only about 10 percent of conflict dyads included the state). For the best estimate category, the total fatality count is approximately 750,000 deaths (Sundberg and Melander, 2013).

I prefer UCDP GED over ACLED for several reasons. First, the definition of conflict event in UCDP GED is restricted to fatal events and it adheres to the general and well established definitions in UCDP–PRIO Armed Conflict Dataset, which has been extensively used in the conflict literature (see for example, Miguel et al, 2004, and Esteban et al, 2012). On the contrary, the definition of event in ACLED includes non-violent events such as troop movements, the establishment of rebel bases, arrests, and political protests. Moreover, the definitions of armed conflict and what constitutes an event in ACLED is not fully specified. This is indeed worrisome because it makes harder to understand the potential scopes of measurement errors in the conflict data. Nonetheless, ACLED data does allow the user to identify battle and other violent events. Second, UCDP GED provides an estimate of number of casualties per event that allows me to calculate an alternative measure of conflict intensity. Third, Eck (2012) argues that ACLED presents higher rates of miscoding. Fourth, the UCDP GED provides a larger temporal coverage (22 years vs 14 years in ACLED).

Despite of my aforementioned reasons to choose UCDP GED over ACLED, the latter has been recently used by economists (see, for instance, Harari and La Ferrara 2013, Besley and Reynal-Querol 2012, and Michalopoulos and Papaioannou 2012). Therefore, I show as a robustness check exercise that using ACLED data does not qualitatively affect the main results of my empirical exercise.

4.2 Cross Sectional Evidence

I start my empirical analysis by looking at the statistical relationship between prevalence of conflict and state history at the 2 by 2 degree grid cell level. The key motivation to have an arbitrary construction (i.e., grid cell) as unit of observation, as opposed to sub-national administrative units, is to mitigate concerns related to the potential endogeneity of the borders of those political units. In particular, political borders within modern countries may be a direct outcome of either patterns of contemporary conflict or any of its correlates (such as ethnic divisions).

Table A.1 in the appendix presents summary statistics of the 558 grid cells in my sample. The average area of a grid cell in my sample is 42,400 square kilometer which represents approximately one tenth of the average size of a Sub-Saharan African country. A mean conflict prevalence of .189 implies that, during the period 1989-2010, an average grid cell experienced 4 years with at least one conflict event. Approximately one fourth of the grid cells had at least one conflict onset.[18]

I now turn to the analysis of the empirical relationship between state history and contemporary conflict at the grid cell level. I begin by estimating the following baseline equation:

$$Conflict_{i,c} = \alpha + \beta State\,History_i + G_i^{'}\Gamma + X_i^{'}\Delta + C_i^{'}Z + \lambda_c + \epsilon_{i,c} \quad (1)$$

where i and c denote grid cells and countries respectively. The variable $Conflict_{i,c}$ is a measure of conflict prevalence and represents the fraction of years with at least one conflict event during the period 1989-2010 for the grid cell i in country c. The variable $State\,History_i$ is my new index for state history at the sub-national level i. Therefore, β is the main coefficient of interest in this exercise. The vector $G_i^{'}$ denotes a set of geographic and location specific controls. The vector $X_i^{'}$ includes a set of controls to account for the potential direct effects on conflict from temperature volatility, ecological diversity, and a proxy for genetic diversity. $C_i^{'}$ is also a vector and includes potential confounding variables which may be also arguably outcomes of historical state formation. Thus, including these variables may result in a potential bad control problem (see Angrist and Pischke 2009, for discussion). Finally, λ_c is country c fixed effect included to account for time-invariant and country-specific factors, such as national institutions, that may affect the prevalence of conflict.[19]

[18] Conflict onset is defined as the first event within a dyad.

[19] Each grid cell is assigned to exclusively one country when defining country dummies. When one grid cell crosses country borders it is assigned to the country with the largest share on the grid cell. Given the relevance of proximity to international borders as a correlate of conflict, for the remainder of the paper I will control for a variable indicating the number of countries intersected by each grid cell.

OLS Estimates

Table 1 provides a first statistical test to document a strong negative correlation between state history and contemporary conflict at the sub-national level. Below each estimation of my coefficient of interest I report four different standard errors. To start with and just for sake of comparison I report robust standard errors which are consistent with arbitrary forms of heterokedasticity. I also report standard errors adjusted for two-dimensional spatial autocorrelation for the cases of 5 degrees and 10 degrees cut-off distances.[20] I finally report standard errors adjusted for clustering at the country level. For all the specifications in Table 1 standard errors clustered at the country level are much larger than under the other alternative methods. This pattern holds for all the specifications presented in this paper. Therefore, clustering at the country level appears to be the most conservative approach to avoid over-rejection of the null hypothesis regarding the statistical significance of the coefficient of interest. For the remainder of this paper, I report standard errors and statistics of the hypothesis test that are robust to within-country correlation in the error term.

I now turn to the analysis of the estimates in Table 1. For the first column I only focus on the statistical relationship between state history and conflict after controlling for country dummies. The point estimate for β suggests a negative correlation between state history and conflict prevalence. In column 2 I add a vector of geo-strategic controls that may also correlate with historical prevalence of states.[21] Distances to the ocean and the capital of the country are intended to proxy the peripheral location of the grid cell. To further account for the possibility of within-country variation in national state penetration, I also control for terrain's characteristics (i.e: elevation and ruggedness) that were highlighted in previous literature (see, for example, Fearon and Laitin 2003, and Cederman 2008). Distance to a major river, density of rivers, and a capital city dummy are also included to account for their geo-political relevance as main targets for conflict actors.[22] Total area of the grid cell is also

[20] I follow Conley (1999)'s methodology in which the asymptotic covariance matrix is estimated as a weighted average of spatial autocovariances where the weights are a product of kernel functions in North-South and East-West dimensions. These weights are zero beyond an specified cutoff distance. I consider 3 cutoffs distances, namely 3, 5, and 10 degrees.

[21] By geo-strategic dimension I refer to geographical or geo-political characteristic of the grid cell that may affect the likelihood of conflict through its effect on either the capabilities of central government to fight insurgency or the benefits for any of the warring actors (such as seizing the capital or controlling major roads). See appendix to detailed description of all the variables.

[22] One may argue that the location of the modern capital city could be an outcome of state history and thus may constitute a case of "bad control". Nonetheless, note that most of the location of modern capital cities in Sub-Saharan Africa followed decisions made by colonizers to service their needs and did not necessarily overlap with the preexisting polities (Herbst, 2000). None of the results in this paper are driven by the inclusion of this vector of geo-strategic controls.

included among the controls as well as an indicator of the number of countries intersecting each grid cell. The latter accounts for the fact that conflict is more prevalent near international borders (see, for instance, Michalopoulos and Papaioannou, 2012) whereas the former accounts for the smaller size of coastal grid cells. A positive correlation between income from natural resources and conflict has been extensively documented (see, for example, Fearon, 2003, Collier and Hoeffler, 2004, and Fearon and Latin, 2005). Thus I add a dummy variable taking the value one if at least one natural resource site (i.e: gems, diamond, gas or oil) is located in the grid cell. It is worth noting that most of these controls also help to explain within-country variation in economic development.

All the point estimates (not shown) for the geo-strategic controls present same sign as previously documented in conflict literature (see, in particular, Harari and La Ferrara 2013 for a cross-sectional analysis based on grid cells). More importantly, the point estimate for β suggests an statistically significant negative relationship between state history and contemporary conflict. Since the standard deviation for the dependent variable (0.232) is very similar to the standard deviation of my state history index (0.227), the interpretation of the coefficient estimates for β in terms of standard deviations is straightforward. One standard deviation increase in state history is associated with 0.17 standard deviation reduction in the prevalence of conflict during the period of analysis (roughly one year in the sample period or one fourth of the mean prevalence of conflict).

I now consider the potential effects of land endowment and the disease environment. Early state development has been influenced by the geographic, climatic, demographic and disease environment (Diamond 1997, Reid 2012, and Alsan 2013). I first include, in column 3, a measure of soil suitability to grow cereal crops which not only positively correlates with early statehood but also it correlates with modern population density, an important driver of conflict.[23] Then, in column 4, I introduce two measures accounting for the ecology of malaria (from Conley, McCord, and Sachs 2010) and the suitability for the tsetse fly. The former weakly correlate with my index of state history but was historically prevalent in Sub-Saharan Africa (Depetris-Chauvin and Weil 2013) whereas the latter is strongly negatively correlated with it (consistently with Alsan 2013). In addition, Cervellati, Sunde, and Valmori (2012) find that persistent exposure to diseases affects the likelihood of conflict by affecting the opportunity cost of engaging in violence. The point estimate for β remains unaltered.

[23]Data on soil suitability for growing cereal comes from the Food and Agriculture Organization (FAO)'s Global Agro-Ecological Zones (GAEZ) database. The suitability of the soil is calculated based on the physical environment (soil moisture conditions, radiation, and temperature) relevant for each crop under rain-fed conditions and low use of inputs. The suitability measure ranges between 0 (not suitable) to 1 (very suitable).

Table 1: OLS Estimates - Baseline Specification

Dependent Variable: Conflict Prevalence 1989-2010 (fraction of years with at least one conflict event)		(1)	(2)	(3)	(4)
State History 1000 - 1850 CE		-0.109**	-0.174***	-0.179***	-0.183***
	robust std err	(0.045)	(0.043)	(0.042)	(0.043)
	spat. adj. std err (5 degrees)	(0.054)	(0.047)	(0.047)	(0.048)
	spat. adj. std err (10 degrees)	(0.064)	(0.054)	(0.053)	(0.056)
	std err clust country	(0.075)	(0.066)	(0.060)	(0.064)
Country Dummies		Y	Y	Y	Y
Geo-strategic Controls		N	Y	Y	Y
Cereal Suitability		N	N	Y	Y
Disease Environment		N	N	N	Y
Observations		558	558	558	558
R-squared		0.349	0.474	0.489	0.490

*** p<0.01, ** p<0.05, * p<0.1 (robust case). The unit of observation is a grid cell. The geo-strategic controls are distance to ocean, distance to major river, distance to capital, capital dummy, total river length, mean elevation, ruggedness terrain, total area, dummy for natural resources sites, and number of countries intersected by the grid. Cereal suitability represents the soil suitability for cultivating cereals (FAO's GAEZ database). Disease environment control include malaria ecology in early 20th century and TseTse fly suitability (predicted distribution from FAO).

Potential confounding effects of genetic diversity, ecological diversity, and temperature volatility. Ashraf and Galor (2013a, 2013b) argue that genetic diversity had a long-lasting effect on the pattern of economic development and ethnolinguistic heterogeneity (including fractionalization among other measures). Even more importantly, Arbatli, Ashraf, and Galor (2013) show that genetic diversity strongly correlates with several measures of social conflict. Unfortunately, no data on genetic diversity at the grid cell level exists. To tackle this problem, I use the fact that distance from the location of human origin (i.e: Addis Ababa in Ethiopia) is a strong linear predictor of the degree of genetic diversity in the populations (Ramachandran et al. 2005, Liu et al. 2006, and Ashraf and Galor 2013a). Results in column 1 shows that distance to Addis Ababa enters with the expected sign suggesting that genetic diversity has a positive impact on conflict.[24] Nevertheless, the point estimate for β is affected remarkably little (albeit it slightly decreases in size).

[24] Controlling for distance and its square (to account for the fact that genetic diversity has been shown to have a hump-shaped relationship with economics development) does not affect the results.

Fenske (2012) shows that ecological diversity is strongly related to the presence of pre-colonial states in Sub-Saharan Africa. Diversity in ecology correlates with potential drivers of conflict such as linguistic or cultural diversity (Michalopoulos 2012, and Moore et al, 2002) and population density (Fenske 2012, Osafo-Kwaako and Robinson 2013). In addition, herders cope with climate limitations by moving between ecological zones which potentially leads to land-related conflicts with farmers (a well-documented phenomenon in conflict literature, in particular for the Sahel region -see Benjaminsen et al 2012). To account for this potential bias, I follow Fenske (2012) and measure ecological diversity as a Herfindahl index constructed from the shares of each grid's area that is occupied by each ecological type on White's (1983) vegetation map of Africa.[25] Point estimates in column 2 of Table 2 show that ecological diversity presents indeed a statistically significant and positive correlation with contemporary conflict. The negative association between state history and conflict remains statistically strong.

I next consider the potential confounding effect of climate variability in column 3. Ashraf and Michalopoulos (2013) show that historical climatic volatility impacted the timing of the adoption of agriculture, an important determinant of the longevity of statehood. On the other hand, Durante (2009) show that, within Europe, variation in social trust is driven by historical variation in climate. When I include intertemporal temperature volatility the size of my point estimates decreases by 30 percent (albeit it remains statistically significant).[26] This fact is consistent with the possibility that my hypothesized mitigation effect of state history on contemporary conflict may partially confound with higher levels of social trust induced by historical climate variability. Further, I obtain a similar point estimate when controlling for these three confounders in column 4.

[25] They are 18 major ecological types in White's (1983) map: altimontaine, anthropic, azonal, bushland and thicket, bushland and thicket mosaic, cape shrubland, desert, edaphic grassland mosaic, forest, forest transition and mosaic, grassland, grassy shrubland, secondary wooded grassland, semi-desert, transitional scrubland, water, woodland, woodland mosaics, and transitions. See appendix.

[26] I use variation in modern data to proxy historical climatic variation. Ashraf and Michalopoulos (2013) show that spatial variation in temperature volatility remains largely stable over long periods of time; thus contemporary climate data can be meaningfully employed as informative proxies for prehistoric ones.

Table 2: OLS Estimates - Potential Confounding Effects

Dependent Variable: Conflict Prevalence 1989-2010 (fraction of years with at least one conflict event)				
	(1)	(2)	(3)	(4)
State History 1000 - 1850 CE	-0.171***	-0.198***	-0.155***	-0.163***
	(0.068)	(0.063)	(0.054)	(0.057)
Distance to Addis Ababa	-0.066***			-0.052***
	(0.020)			(0.019)
Ecological Diversity		0.128**		0.099**
		(0.056)		(0.051)
Temperature Volatility			-0.060***	-0.048**
			(0.014)	(0.015)
Country Dummies	Y	Y	Y	Y
Geo-strategic Controls	Y	Y	Y	Y
Cereal Suitability	Y	Y	Y	Y
Disease Environment	Y	Y	Y	Y
Observations	558	558	558	558
R-squared	0.509	0.508	0.518	0.537

Robust standard errors clustered at the country level in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is a grid cell. The basic set of controls is described in Table 2. Distance to Addis Ababa proxies for genetic diversity. The longer the distance to Addis Ababa, the lower the genetic diversity. Ecological diversity is a Herfindhal index based on Vegetation types from White (1983). Temperature volatility represents the intertemporal standard deviation of monthly data. Temperature data is from the period 1978-2010 and proxy for historical figures (See Ashraf and Michalopoulos, 2013).

Robustness Checks

Considering potential "bad controls" and potential mediating channels. There are certainly others contemporaneous and historical confounding factors for my analysis. I next show how the point estimate for my variable of interest is affected by the inclusion of additional controls which can be arguably considered outcomes of a long-run exposure to centralized polities. While not conclusive, changes in my main point estimate when including these controls may be suggestive of the existence of mediating channels through which state history impacts modern conflict. I focus on pre-colonial economic prosperity, population density, ethnic fractionalization, slave trade prevalence, proximity to historical trade routes and historical conflict sites, and contemporary development (proxied by light density at nights obtained from satellite images). Main point estimates are displayed in Table 3. I start with pre-colonial ethnic controls accounting for historical levels of prosperity and economic sophistication.[27] I focus on two sets of ethnicity level variables. First, I consider the subsistence income shares derived from hunting, fishing, animal husbandry, and agriculture (variables v2 to v5 from Ethnographic Atlas).[28] Second, I consider a variable describing the pattern of settlement. This variable (v30 from Ethnographic Atlas) is coded in order of increasing settlement sophistication taking values from 1 (nomadic) to 8 (complex settlement). Overall, my point estimate for β does not change (albeit its precision is improved) with the addition of these controls in column 1.

Next I analyze the confounding effect of population density.[29] Unfortunately no detailed historical data on population density exists at my level of analysis. Using different sources Goldewijk, Beusen, and Janssen (2010) estimate population counts for several centuries with a spatial resolution of 5 min longitude/latitude. Needless to say, these estimates are necessarily rough approximations so I use them as a proxy for within-country variation of population density in pre-colonial times.[30] The point estimates for β increases almost 10% and remains strongly statistically significance. I next construct an ethnic fractionalization variable based on the index introduced in Alesina et al (2003).[31] I compute a fractionaliza-

[27] I construct pre-colonial ethnographic measures at the grid cell level based on information from the Ethnographic Atlas (Murdock, 1967) and the spatial distribution of ethnic groups from Murdock's (1959) map. All these measures are 1960 population-weighted averages of traits of ethnic groups whose historical homelands intersect a given grid cell. I basically follow the procedure described in Alesina, Giuliano, and Nunn (2013). See appendix for details.

[28] I omit the category share of income from gathering activities to avoid multicollinearity.

[29] Population density is positively correlated with the prevalence of conflict (see, among others, Buhaug and Rød, 2006; Raleigh and Hegre, 2009, and Sundberg and Melander, 2013). It has been argued that low population density was one of the main obstacles for state formation in the pre-colonial Sub-Saharan Africa (see, among others, Bates 1983, Diamond 1997, and Herbst 2000). This hypothesis is, however, contested in a recent work by Philip Osafo-Kwaako and James Robinson (2013). On the other hand, high population density in the past may have also negatively affected ethnic diversity by reducing isolation (Ahlerup and Olsson, 2012).

[30] The use of this proxy can help to illustrate the importance of the bias when including a bad control. Consider for simplicity that conflict (C) is only related to state history (S) and historical population density (P), then the true model I would like to estimate is: $C_i = \beta_0 + \beta_1 S_i + \beta_2 P_i + u_i$. However, I only have data on a proxy for population density in 1700 (P^{1700}) which is a function of both S and P : $P^{1700} = \gamma_0 + \gamma_1 S_i + \gamma_2 P_i + \epsilon_i$. When regressing C on S and P_{1700}, I am estimating $C_i = \left[\beta_0 - \beta_2 \frac{\gamma_0}{\gamma_1}\right] + \left[\beta_1 - \beta_2 \frac{\gamma_2}{\gamma_1}\right] S_i + \frac{\beta_2}{\gamma_1} P_i^{1700} + \left(u_i - \beta_2 \frac{\epsilon_i}{\gamma_1}\right)$. Since it is apparent that $\beta_2 > 0, \gamma_2 > 0$, and $\gamma_1 > 0$, the inclusion of this proxy of population density in 1700 would overestimate the negative impact of state history on conflict.

[31] Ethnic fractionalization denotes the probability that two individuals randomly selected from a grid cell will be from different ethnic groups. In order to be consistent throughout this paper my definition of ethnic group is based on Murdock (1959). Therefore, I construct shares of ethnic population using gridded population and the spatial distribution of ethnic groups in Murdock's map. See appendix for details.

tion index based on grid population in 1960. Using population figures from 1960 alleviates concerns of reverse causality from contemporary conflict to population distributions.[32] The point estimates for β remains unaltered when including ethnic fractionalization as control.[33] I next consider slave trade.[34] I construct population-weighted averages of slave trade prevalence at the grid cell level using Nathan Nunn's data. The expected correlation between slave trade prevalence and state history is ex ante ambiguous.[35] Results in column 4 show that the introduction of slave trade prevalence as a determinant of contemporary conflict does not affect the estimation of β. The inclusion of shortest distance to historical trade routes in column 5 does not affect the results. I next add the distance to the closest historical battle during the period 1400-1700 CE. This variable is constructed upon information recorded and georeferenced by Besley and Reynal-Querol (2012) who find a robust correlation between proximity to the location of historical battles and contemporary conflict.[36] Results in column 6 are in line with Besley and Reynal-Querol's (2012) main finding. As expected, the point estimate of my variable of interest slightly increases and remains statistically significant. One-standard deviation increase in state history is statistically related to a reduction of the prevalence of conflict of 1/4 of its standard deviation. Neither the inclusion of (ln of) light density, as measured in Michalopoulos and Papaioannou (2013), or the inclusion of the previous variables all together affect the statistical significance of my

[32] Ethnic heterogeneity is a commonly stressed determinant of conflict (see, among others, Easterly and Levine 1997 and Collier, 1998) and it is likely to be correlated with state history (see Bockstette et al, 2002; and Ahlerup and Olsson, 2012).

[33] I obtain almost identical results (not shown) if I use ethnolinguistic fractionalization (i.e: using ethnologue to compute linguistic distances between pair of ethnic groups within a grid) instead of ehtnic fractionalization.

[34] Why would slave trade be important for contemporary conflict? First, Nunn (2008) finds that slave trade resulted in long-run underdevelopment within Africa. More importantly, historical slave trade has been shown to have an effect on ethnic fragmentation (Whatley and Gillezeau, 2011b) and individual's mistrust (Nunn and Wantchekon, 2011), which are both arguably potential drivers of social conflict.

[35] On the one hand, Nunn (2008) suggests that slave trade could have been an impediment for pre-colonial state development in Africa. In the same direction, Whatley and Gillezeau (2011a) argues that increasing international demand for slaves might have reduced the incentive to state creation (relative to slave raiding) by driving the marginal value of people as slaves above their marginal value as tax payers. On the other hand, there exist several historical accounts linking the rise of some African kingdoms to the slave trade (see, for example, Law 1977 for the case of the Oyo Empire, and Reid 2012). For instance, while analyzing the role of warfare, slavery and slave-taking in Yoruba state-building, Ejiogu (2011) documents slave-taking campaigns of Oyo against neighboring Nupe (note that Oyo -part of Yoruba - and Nupe share territories within grid cells).

[36] They also show that proximity to historical conflict site correlates with mistrust, stronger ethnic identity, and weaker sense of national identity. Provided this documented long-lasting effect and considering that violent conflict between and within historical African states was part of the state-building processes in the past (see, among others, Lewis, 1966; Ben-Amos Girshick and Thornton, 2001; Ejiogu 2011; Reid 2012 and Bates 2013), the omission of this control would underestimate the effect of state history on contemporary conflict.

main finding. Therefore, if anything, the inclusion of these potential confounders makes the negative statistical association between state history and contemporary conflict stronger.

On the discount factor and long-run exposure. I next explore how my OLS estimates are affected by the election of different discount factors to compute the state history index. I report in columns 1 to 4 of Table 4 results for four different specifications with discount rates of 5, 10, 25, and 50 percent. For the sake of comparison, I report both the point estimates and the beta standardized coefficients. All the specifications include the full set of controls as in Table 2. Only when a discount rate of 50 percent is applied, my coefficient of interest is slightly statistically insignificant under the conventional levels of confidence. Two facts are worth to note. First, the higher the discount rate, the lower the statistical significance of the coefficient for the corresponding state history measure. Second, the beta standardized coefficient is also decreasing on the discount rate suggesting indeed that history has an influence on conflict. For instance, the beta standardized coefficient when the discount rate is 0 (i.e., -0.20, not show in Table 7) is more than 50 percent larger that for the case in which the discount rate is 25 percent. For columns 5, 6, and 7 I break my period of analysis in two sub-periods, namely before and after 1500 CE when external influence became more relevant for Africa due to the prevalence of slave trade and early European colonialism. In columns 5 I only consider the accumulation of state exposure from 1500 CE to 1850 CE. Albeit statistically and economically weaker, there is still a negative statistical association between state history and modern conflict. In columns 6 I only consider the period 1000 -1500 CE and the coefficient of interest is strongly significant and of the similar magnitude when compared with the estimation from the specification using my original measure of state history. When including both measures only the one considering the accumulation from 1000 CE to 15000 CE is strongly statistically and economically significant. This result suggests that the state history that matters the most is the one accumulated before 1500 CE.

Intensive and extensive margin of political centralization. To argue that what matter the most is the intensive margin of exposure to state institutions (long history) rather than the extensive margin (any state vs. no state at all right before the Scramble for Africa), I estimate a new specification in column 1 of Table 5 for which the state history variable is the

Table 3: OLS Estimates - Additional Controls

	Dependent Variable: Conflict Prevalence 1989-2010 (fraction of years with at least one conflict event)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
State History 1000 - 1850 CE	-0.172***	-0.171***	-0.166***	-0.163***	-0.166***	-0.187***	-0.189***	-0.207***
	(0.050)	(0.055)	(0.056)	(0.057)	(0.058)	(0.057)	(0.057)	(0.057)
Additional Control	Precolonial Prosperity	Pop Dens. in 1700	Ethnic Fraction	Slave Trade	Hist Trade Routes	Dist. Hist Conflict	Light Density	All
Coefficient Add. Control	P-value Joint Sig.	0.009***	0.059	0.001	0.013	-0.012	0.037***	P-value Joint Sig.
	[0.11]	(0.003)	(0.039)	(0.005)	(0.032)	(0.007)	(0.014)	[0.0296]
Observations	558	558	558	558	558	558	558	558
R-squared	0.540	0.560	0.540	0.537	0.537	0.545	0.555	0.578

Robust standard errors clustered at the country level in parentheses.*** $p<0.01$, ** $p<0.05$, * $p<0.1$. The unit of observation is a grid cell. The full set of controls are: distance to ocean, distance to major river, distance to capital, capital dummy, total riverlength, mean elevation, ruggedness terrain, total area, dummy for natural resources sites, number of countries intersected by the grid, cereal suitability, malaria ecology in early 20th century, TseTse fly suitability , distance to Addis Ababa, ecological diversity, and temperature volatility. See Tables 2 and 3 for details.

Table 4: OLS Estimates. Discount Factors and Importance of Medieval Period

Dependent Variable: Conflict Prevalence 1989-2010 (fraction of years with at least one conflict event)							
	5% Discount	10% Discount	25% Discount	50% Discount	0% Discount	0% Discount	0% Discount
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Discounted State History 1000 - 1850 CE	-0.143**	-0.125**	-0.088*	-0.081			
	(0.054)	(0.052)	(0.047)	(0.053)			
State History 1500-1850 CE					-0.071		-0.017
					(0.043)		(0.038)
State History 1000-1500 CE						-0.170***	-0.161**
						(0.060)	(0.064)
Beta coefficient	-0.15	-0.138	-0.107	-0.099	-0.092	-0.164	na
Observations	558	558	558	558	558	558	558
R-squared	0.540	0.537	0.531	0.527	0.530	0.544	0.545

Robust standard errors clustered at the country level in parentheses.*** p<0.01, ** p<0.05, * p<0.1. The unit of observation is a grid cell. The full set of controls are: distance to ocean, distance to major river, distance to capital, capital dummy, total river length, mean elevation, ruggedness terrain, total area, dummy for natural resources sites, number of countries intersected by the grid, cereal suitability, malaria ecology in early 20th century, TseTse fly suitability, distance to Addis Ababa, ecological diversity, and temperature volatility. See Tables 2 and 3 for details.

state history score the last period considered in the computation of my index (i.e., 1800 - 1850 CE). The coefficient estimate, albeit negative, is statistically insignificant (p-value = 0.19). Further, I construct a 1960 population-weighted average of the degree of ethnic centralization in the grid cell using the Ethnographic Atlas's variable "Jurisdictional Hierarchy beyond the Local Community" which ranges from 1 (no jurisdiction above village level) to 4 (large state). This variable has been used to document the importance of political centralization for current pattern of development (Gennaioli and Rainer 2007a, and Michalopoulos and Papaioannou 2013). Result in column 2 shows that the correlation between late pre-colonial ethnic centralization and the prevalence of modern conflict is not statistically significant. This result is quantitatively very similar to the point estimates in column 1. One can still argue that it is not the long history of state but its complete absence what explains the uncovered statistical association. In this sense, it may be the case that locations with no history of state whatsoever are located in remote and unpopulated regions with little national state penetration where rebel groups can easily operate. In the specification of column 3 I exclude all the observations with no history of state whatsoever (223 grid cells) and show that my main results are not driven by those locations. The point estimate is very similar and strongly statistically significant. If I restrict the sample even more and consider only locations with at least 100 years of state history (Thus, I exclude 329 grid cells) I obtain even stronger results (column 4).

Further Robustness Checks. In the online appendix I present additional robustness checks. I obtain similar pattern when I use an alternative conflict dataset (i.e. ACLED), focus on a measure of conflict intensity as dependent variable (i.e; log of the number of casualties due to conflict) or just the onset of conflict ((i.e: first confrontation within a dyad). Point estimates are reported on Table S.2. I also show that no particular region, country, or influential observation is driving the results (see online appendix for discussion).

Assessing the extent of bias from unobservables. The point estimates reported so far may still be biased due to unobservable factors correlated with both contemporaneous conflict and long-run exposure to states. How large would this selection on unobservables need to be (relative to selection on observables) to attribute the entire OLS estimates previously reported to a unobservable selection effect? I follow the intuitive heuristic in Nunn and Wantchekon (2011) based on Altonji, Elder, and Taber (2005) to assess the degree of omitted variables bias by studying stability of the estimates for β. The underlying idea is that, under

Table 5: OLS Estimates - Intensive vs Extensive Margin of Political Centralization

Dependent Variable: Conflict Prevalence 1989-2010 (fraction of years with at least one conflict event)				
	(1)	(2)	(3)	(4)
State History Score 1800 CE	-0.043			
	(0.032)			
Ethnic Centralization (v33 Eth. Atlas)		-0.008		
		(0.014)		
State History 1000 - 1850 CE			-0.177***	-0.205*
			(0.054)	(0.101)
Sample	Full	Full	State Hisory > 0	>100 years of State
Observations	558	558	335	229
R-squared	0.524	0.524	0.559	0.559

Robust standard errors clustered at the country level in parentheses.*** p<0.01, ** p<0.05, * p<0.1. The unit of observation is a grid cell. State History Score 1800 CE represents the fraction of grid which was under a centralized state during the period 1800 - 1850 CE. Ethnic Centralization is 1960-population weighted average of Ethnographic Atlas's variable v33 (Jurisdictional Hierarchy Beyond Local Community) ranging from 1 to 5 (Large States). The full set of controls are: distance to ocean, distance to major river, distance to capital, capital dummy, total river length, mean elevation, ruggedness terrain, total area, dummy for natural resources sites, number of countries intersected by the grid, cereal suitability, malaria ecology in early 20th century, TseTse fly suitability, distance to Addis Ababa, ecological diversity, andtemperature volatility. See Tables 2 and 3 for details.

the assumption that selection on observables is proportional to selection on unobservables, a coefficient not changing much as one adds controls would be suggesting that there is little remaining bias. I thus compare the point estimate in the last specification in Table 3 which includes a full set of controls ($\hat{\beta}_1 = -.163$) with the point estimate when only a basic set of controls (i.e., country fixed effect and geographical controls) is included ($\hat{\beta}_2 = -.174$). The ratio between $\hat{\beta}_1$ and $\hat{\beta}_1 - \hat{\beta}_2$ (the selection on observables) suggests that selection on unobservables would have to be more than 15 times the selection on observables to explain away the entire statistically relationship between state history and contemporaneous conflict.

4.3 An alternative proxy for historical political centralization and measurement error

I construct another independent imperfect measure of state history by exploiting information on the location and evolution of above sixty large African cities (of which thirty five were located in Sub-Saharan Africa) during the period 1000 - 1800 CE.[37] To the extent that kingdoms and empires tended to have a large city as political center, I consider proximity to a large city as an indicator of the degree of influence from a centralized power. I introduce this new measure for several reasons. First, to show that the negative statistical association uncovered in the OLS case still hold when using an alternative measure. Second, this new measure will overcome a potential caveat in my original measure of state history which assumes an homogeneous effect of centralization within the boundaries of a historical polity. This assumption had two implications: (1) the introduction of a sharp discontinuity at the border of the boundary, and (2) inconsistency with the idea that broadcasting power strength may depend on the distance from the political center.

Construction. This measure exploits time-varying proximity to large cities. Therefore, some cities exert influence to their periphery only for particular time intervals. For instance, Djenne, in modern Mali, only enters in my panel of cities for the period 1300 - 1600 CE . For each hundred years period I calculate the shortest distance to closest city from the centroid of each grid cell. I then calculate within-grid average of the distances for the whole period of analysis and map them into a 0 to 1 interval so the grid cell with the minimum average distance takes the value 1. See online appendix for the of georeferenced cities and the spatial variation in this new measure (Figure 6).

All specifications in Table 6 include the full set of controls listed in Table 2. In column 1 I present the OLS estimate for the reduced-form conflict and historical proximity to cities. I find the same the pattern as before. Historical proximity to cities for the time period 1000 - 1800 CE is negatively and strongly statistically associated to prevalence of modern conflict. The magnitude of the standardized coefficient (not reported in Table) is identical to the one from the specification using the time elapsed since the neolithic revolution: one-standard deviation increase in the historical proximity to cities implies a .55-standard deviation reduction in the prevalence of contemporary conflict.

Assessing the bias from measurement error. As discussed above, a good deal of measurement error may be present in my index. Under classical measurement error assumption (i.e., the true measure of state history is uncorrelated with the measurement error) the magnitude of the attenuation bias will depend on the reliability ratio which will be close to the ratio between the variance of the true measure of state history and the variance of the mismeasured state history. I can use variation from these two alternative measures to investigate the

[37] I define a city to be large if it has more than ten thousand inhabitants. The list of cities comes from Chandler (1987) and Eggiman (2000). See Table S.3.

extent of the attenuation bias from measurement error (there may still exist, of course, a potential bias due to omitted variables). In columns 2 of Table 6 I report 2SLS estimate for my state history index when using historical proximity to cities as instrument. The point estimate (i.e; 0.64) is consistent with the existence of a sizable attenuation bias in my previous results.

Table 6: Historical Proximity to Cities and Contemporary Conflict

Dependent Variable: Conflict Prevalence 1989-2010 (fraction of years with at least one conflict event)		
	(1) OLS	(2) 2SLS
Historical Proximity to Cities	-0.619**	
	(0.238)	
State History 1000 - 1850 CE		-0.639***
		(0.149)
Instrument		Proximity to Cities
F-Statistic First-Stage	-	13.15
Observations	558	558
R-squared	0.542	0.145

Robust standard errors clustered at the country level in parentheses.*** p<0.01, ** p<0.05, * p<0.1. The unit of observation is a grid cell. The full set of controls are: distance to ocean, distance to major river, distance to capital, capital dummy, total river length, mean elevation, ruggedness terrain, total area, dummy for natural resources sites, number of countries intersected by the grid, cereal suitability, malaria ecology in early 20th century, TseTse fly suitability, distance to Addis Ababa, ecological diversity, and temperature volatility.

4.4 Panel Data Evidence: Weather Induced-Agricultural Productivity Shock, State History, and Conflict

In a comprehensive synthesis of the climate-conflict literature, Burke, Hsiang, and Miguel (2013) argue that there is strong causal evidence linking climatic events to conflict. The existence of an income mechanism underlying this causal link has been proposed repeatedly times in the conflict literature but it has not been definitively identified yet. Harari and La Ferrara (2013) present convincing evidence that what drives the observed empirical relationship between weather shocks and conflict in Africa is weather anomalies occurring within the growing season of the main local crops. In addition, Schenkler and Lobell (2010) shows that crop yields are indeed affected by growing season precipitation and temperature.

Moreover, Brown et al (2011) argue that persistent drought conditions is the most significant climate influence on GDP per capita growth in Africa. Given the high dependance of Sub-Saharan Africa economies on rainfed agriculture, these results provide strong evidence consistent with the existence of an income mechanism. Therefore, I draw upon Harari and La Ferrara (2013) to construct weather-induced agricultural shock by exploiting information on spatial distribution of crops, planting and harvesting calendars, and variability on water balance anomalies across space and time.[38] I hypothesize that locations with long history of statehood should be better equipped of mechanisms to mitigate the negative effects of weather shocks. To support my hypothesis, I exploit panel data variation (over the time period 1989-2010) in the prevalence of conflict, weather-induced productivity shocks, and the interaction of my state history index with those shocks to estimate the following equation:

$$Confl_{i,t} = \alpha + \gamma Shock_{i,t} + \delta State\,History_i \times Shock_{i,t} + W'_{i,t}\Pi + \theta Confl_{i,t-1} + \lambda_i + \nu_t + \epsilon_{i,c,t} \quad (2)$$

Where t indexes year. The variable $Confl_{i,c,t}$ takes the value 1 if at least one conflict event occurs in the grid cell i in year t, and 0 otherwise. The variable $State\,History_i$ is the same as defined for equation (1). The vector $W'_{i,t}$ includes year averages of monthly precipitation and temperature deviation from historical monthly means to account for any independent effect that these variables may have on conflict outside of the growing season. The variables λ_i and ν_t denote a grid and year fixed effects, respectively. The main coefficient of interest in this exercise is δ. Standard errors are clustered at the grid cell level.

In column 1 of Table 7 I present OLS estimates an specification of equation (2) for which $\delta = \theta = 0$. The point estimates suggest an statistically significant positive impact of negative weather shocks on conflict as it has been documented already in the related literature. Adding a lagged dependent variable to account for the dynamics of conflict does not affect the previous result. As expected, conflict in $t-1$ strongly predicts conflict in t .[39] Having a extreme negative shock increases the likelihood of civil conflict by 3.3 percent. Note that by doing $\hat{\gamma}/(1-\hat{\theta})$ one can calculate the medium-run impact of a shock on conflict. Applying this formula to the estimates from column 2, I find the medium-run impact as 0.015, meaning a extreme negative shock increases conflict by 5% in the medium run (approximately one third

[38]I discuss the construction of the weather-induced agricultural shock in the appendix.

[39]Including the lagged dependent variable along with fixed effects introduces a bias known as Nickell bias. Nonetheless, this bias is a function of the number of period and it decreases substantially when the number of periods is greater than 15.

of the unconditional probability of experience conflict). In columns 3 I include the interaction between a negative shock and my measure of state history. The estimated coefficient for δ suggests that conditional on experience a negative shock, the likelihood of experience conflict is 30 percent lower in a grid with the mean value of state history (i.e: 0.16), relative to a region with no history of statehood. Therefore, this negative correlation between the interaction term state history-negative shock and conflict is consistent with my hypothesized mitigating effect of state history when a location is hit by a shock.

Table 7: Conflict, State History, and Weather Shocks -Panel Data Evidence (1989-2010)-

Dependent Variable: Conflict Prevalence (1 if at least one conflict event in grid-year)			
	(1)	(2)	(3)
Negative Weather Shock	0.015***	0.011***	0.016***
	(0.005)	(0.004)	(0.004)
Shock*State History 1000 - 1850 CE			-0.031*
			(0.017)
Lagged Conflict		0.275***	0.275***
		(0.017)	(0.017)
Log of Yearly Precipitation	0.001	0.001	0.001*
	(0.000)	(0.000)	(0.000)
Deviation of Yearly Temperature	0.033***	0.021*	0.020*
	(0.011)	(0.011)	(0.011)
Observations (grids) [years]	12,276 (558) [22]	12,276 (558) [22]	12,276 (558) [22]

OLS estimates.Robust standard errors clustered at the grid level in parentheses.*** p<0.01, ** p<0.05, * p<0.1.
The unit of observation is a grid-year. All specifications include grid and year fixed effects. See appendix for details regarding the weather shock. Log of yearly precipitation is the mean of monthly precipation whithin a year Deviation yearly temperature is the average of monthly deviation from historical mean monthly temperature.

Other interaction effects. I next consider a set of different cross-sectional characteristics that when interacted with weather shocks may partially account for the result previously documented, namely that locations with relatively long history of state are less prone to experience conflict when hit by a shock. This set of characteristics includes light density at nights (proxy of regional development), soil suitability for cultivating cereals, pre-colonial agricultural dependence, and historical temperature volatility. All the specifications in Table 10 include both year and grid fixed effects. All the point estimates for the interaction shock-state history are statistically significant and with the expected sign. Results in Table 10 also suggest that locations with higher light density at night, better cereal suitability, and higher pre-colonial dependence on agriculture are more prone to experience conflict when hit by a shock. On the contrary, locations with higher temperature volatility are less prone to have conflict. The inclusion of these interaction terms separately or jointly (in column 5) does not wash away the statistical significance of the negative coefficient for the interaction term state history and weather shock.

4.5 Identifying a Causal Relationship: Uganda and the Legacy of the Bacwezi Dynasty

The robust positive correlation between state history and conflict prevalence I documented above is consistent with my hypothesis that an improved local state capacity may prevent conflict. However, these results can be also explained by other hard-to-account factors that are correlated with historical selection into centralized polities and important unobserved of conflict. For instance, if the reason underlying the formation and persistence of states in the past was the historical presence of more peaceful people, and those characteristics of the population continues to persist today, then this could explain the negative correlation documented in the previous section. In an ideal set up I would need as good as randomly assigned exogenous variation in state history. This variation could come from an instrument that is correlated with the longevity of statehood but uncorrelated with any characteristics of the location (or most of the people living in that location) that may affect the prevalence of conflict. Unfortunately, states arise for very different reasons so finding a fundamental that strongly predicts the longevity of statehood and satisfies the exclusion restriction for all my Sub-Saharan sample is a difficult task. Focusing in a particular region or country facilitates this task. I focus on Uganda.

I borrow from Bandyopadhyay and Green (2012) who instrument pre-colonial centralization (a la Murdock) with the distance to the Iron Age site of Bigo bya Mugenyi which some historians believe was the capital of the Kitara Empire during the Bacwezi dynasty. Little is known with certainty about the legendary, and possible mythical, Kitara Empire and the Bacwezi dynasty (Bandyopadhyay and Green 2012).[40] Although archaeological discoveries in the region provide evidence of the existence of an urban center and a highly organized society around the 14th century, what happened to that society is still an enigma (see

[40] Given this uncertainty surrounding the Kitara Empire, it is not included in my measure of state history.

Table 8: Conflict, State History, and Weather Shocks -Panel Data Evidence (1989-2010)-

Dependent Variable: Conflict Prevalence (1 if at least one conflict event in year)					
	(1)	(2)	(3)	(4)	(5)
Shock* State History 1000 - 1850 CE	-0.040**	-0.033*	-0.046***	-0.030*	-0.051***
	(0.017)	(0.017)	(0.017)	(0.017)	(0.018)
Negative Weather Shock	0.040***	-0.000	-0.012*	0.027***	0.012
	(0.010)	(0.005)	(0.006)	(0.007)	(0.017)
Lagged Conflict	0.275***	0.275***	0.274***	0.275***	0.274***
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Additional Interacted Control	Light Density	Cereal Suitability	Agric. Pre-Colonial Dep.	Temp. Volatility	ALL (p-value joint sig.)
Shock*Additional Interacted Control	0.007***	0.058***	0.007***	-0.004**	[0.0000]
	(0.003)	(0.017)	(0.001)	(0.002)	
Observations (grids) [years]	11,718 (558) [21]	11,718 (558) [21]	11,718 (558) [21]	11,718 (558) [21]	11,718 (558) [21]

OLS estimates. Robust standard errors clustered at the grid level in parentheses.*** $p<0.01$, ** $p<0.05$, * $p<0.1$. The unit of observation is a grid-year. See appendix for details regarding the weather shock and additional interacted controls. All specifications include grid and year fixed effects. Log of yearly precipitation and deviation of yearly temperature are also included (not reported)

Chrétien 2003 and Dunbar 1965). It is believed that the Bacwezi were a ruling pastoral clan not indigenous to the region, most likely arrived from the north, and that its dynasty lasted only for two generations (Dunbar 1965). Several kingdoms of the region find their origins in that society (Doyle 2006). In fact, what is known about the Kitara Empire comes from oral tradition from subsequent kingdoms such as Ankole, Buganda, Bunyoro, Toro, and Rwanda. More importantly, scholars point to the Bacwezi dynasty as the first attempt of centralized political organization in pre-colonial Uganda.

Provided the Bacwezi were not indigenous to Bigo bya Mugenyi and left in a short-period of time after their arrival, the distance to Bigo bya Mugenyi captures the potential historical proximity to the exogenous origin of centralization in pre-colonial Uganda. Intuitively, one can interpret the brief settling of the Bacwezi as an exogenous arrival of an innovation or random shock (i.e; a pattern of political organization) which later spread to adjacent regions. Bigo bya Mugenyi is today a deserted savannah wilderness located in Mawogola county near the border between the kingdoms of Buganda and Ankole. It is approximately 200 kilometers west of both Kampala and Mengo, capital cities of Uganda and Kingdom of Buganda, respectively. I exploit the migratory distance from Bigo bya Mungenyi, which is plausibly uncorrelated with other factors that affected the tendency of modern populations to engage in violence, as an instrument for state history.[41] Nonetheless, in the instrumental variable exercises that follows, I control for a set of variables that may correlate with distance to Bigo bya Mugenyi such as the quality of the soil, distance to Kampala, distance to Lake Victoria, ethnic composition of the location, and other historical measures discussed below.

Left panel in Figure 4 displays the variation of state history at the county level. The highest values of the index are in locations under the influence of the historical Kingdoms of Buganda (west of Kampala), Bunyoro (next to Lake Edward), and Ankole (at the Uganda border with Rwanda and Tanzania). The lowest values of the index are in the Acholiland (northern part close to border with Sudan) and the Eastern part of Uganda. The same figure also depicts the location of Bigo bya Mugenyi in black circle. The right panel in Figure 4 presents a scatter plot of the strong negative unconditional correlation between state history and the migratory distance to Bigo bya Mugenyi.Before turning to the instrumental variable exercise I first present OLS results. In Table 9 I replicate Table 1 for a sample of 153 counties of Uganda.[42] Point estimates displayed are very similar to the ones documented in Table 1.

[41] Migratory distance to Bigo bya Mugenyi is constructed based on Özak (2012a, 2012b), who calculated the walking time cost (in weeks) of crossing every square kilometer on land. The algorithm implemented takes into account topographic, climatic, and terrain conditions, as well as human biological abilities (Özak 2012a).

[42] The only difference in Table 9 is that a dummy for the presence of natural resource sites is not included

Figure 4: State History in Uganda and Distance to Mugenyi

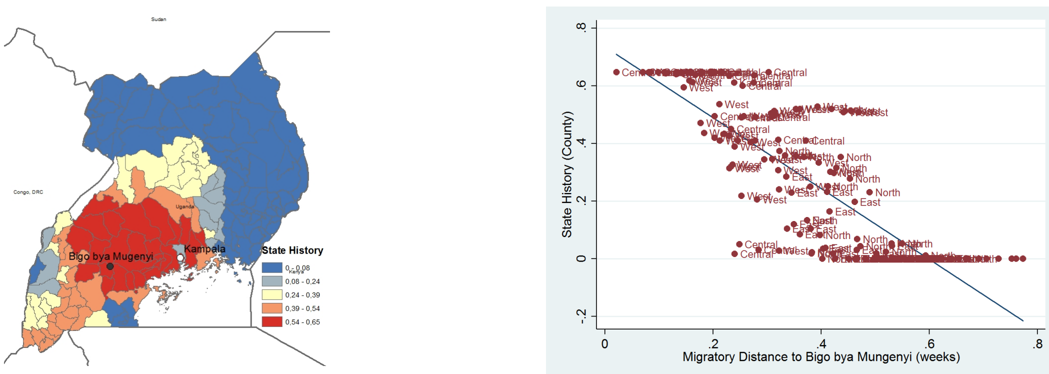


Table 10 presents the instrumental variable results. In column 1 of Panel A I only include the baseline controls as in Column 4 of Table 9. The point estimates suggests a strong negative causal effect of state history on modern conflict: one-standard deviation increase in state history (equivalent to 200 years of statehood) is related to 0.5-standard deviation decrease in conflict prevalence (2.5 years of conflicts over the period 1989-2010). The distance to Bigo bya Mugenngyi may confound with distance to Lake Victoria which was a important center of trade and economic activity. In column 2 I show that my previous point estimate is not affected when including the distance to this water body. In column 3 I add the three potential confounders previously analyzed in Table 2 (i,e; distance to Addis Ababa, ecological diversity, and intertemporal temperature volatility) and show the previous results remains unaltered. A great deal of conflict events in modern Uganda takes place in the northern territories. Although the northern part of Uganda presents indeed lower values of state history one may think that there are other omitted factors varying at the regional level. In column 4 I include region fixed effects. Although the point estimates is approximately 20 percent smaller I still find an statistically significant strong effect. Although ethnic composition at the district level may be endogenous to state history, I show in column 5 that differences in ethnic composition across 56 districts of Uganda are not driving the statistical results. When I include all the previous controls together I still find very strong results: one-standard deviation increase in state history approximately causes an of 0.5-standard deviation decrease in conflict prevalence. Finally, panel B in Table 10 shows that there is a strong first-stage regardless of the specification I estimate.

because there is no natural resource sites documented in Uganda.

Table 9: OLS Estimates - Conflict in Uganda

Dependent Variable: Conflict Prevalence 1989-2010 (fraction of years with at least one conflict event)				
	(1)	(2)	(3)	(4)
State History 1000 - 1850 CE (county level)	-0.177**	-0.193**	-0.163**	-0.176**
	(0.0669)	(0.0788)	(0.0691)	(0.0807)
Geo-strategic Controls	N	Y	Y	Y
Cereal Suitability	N	N	Y	Y
Disease Environment	N	N	N	Y
Observations	153	153	153	153
R-squared	0.083	0.562	0.606	0.618

Robust standard errors clustered at the district level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

The unit of observation is a county. See Table 2 for description of controls.

Table 10: IV Estimates - Conflict in Uganda

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: IV Point Estimate. Dependent Variable: Conflict Prevalence						
State History	-0.321**	-0.317**	-0.254*	-0.282*	-0.426***	-0.370***
	(0.145)	(0.157)	(0.152)	(0.165)	(0.141)	(0.127)
Panel B: First Stage. Dependent Variable: State History (County level)						
Migratory Distance to Bigo bya Mugenyi	-0.867***	-0.968***	-1.051***	-0.822***	-1.026***	-1.035***
	(0.131)	(0.183)	(0.224)	(0.177)	(0.255)	(0.232)
F-Statistics	43.795	28.032	21.964	21.551	16.166	19.334
Baseline Controls	Y	Y	Y	Y	Y	Y
Distance to Lake Victoria	N	Y	N	N	N	Y
Confounders	N	N	Y	N	N	Y
Region FE	N	N	N	Y	N	Y
Ethnic Shares	N	N	N	N	Y	Y
Observations	153	153	153	153	153	153

Robust standard errors clustered at the district level in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is a county. Baseline controls are the one included in column 4 of Table 9. Confouders controls are distance to Addis Ababa, ecological diversity, and intertemporal temperature volatility. Ethnic shares are calculated at the district level using Afrobarometer 5.

5 Identifying Potential Mechanisms at Work: State History and Attitudes Toward State Institutions

It has been stressed that the lack of legitimacy of state institutions represent an underlying cause of the prevalence of civil conflict in Sub-Saharan Africa.[43] Authority gaps undermines the institutional capacity of a state to rule by consent rather than by coercion. States with low levels of legitimacy tend to devote more resources towards retaining power rather than towards effective governance, which undermines even more its popular support and increases the likelihood of political turnover (Gilley, 2006). On the contrary, citizens that consider a government to be legitimate are less likely to rebel. In this sense, trust has been proposed as a good indicator of legitimacy in Sub-Saharan Africa (Hutchison and Johnson 2011). Trust in state institutions is conceived as individual's confidence in those institutions (Newton 2007) and has been associated to peaceful conflict resolution (Hoffman 2002) and the establishment of cohesive political institutions which may generate non-violent outcomes (Besley and Reynal-Querol 2013). Intuitively, a political institution that can be trusted should increase the probability of compliance from (past, current, and potentially future) adversaries once a negotiated settlement has been reached.

I argue that a strong local state capacity inherited from a long run exposure to centralized institutions should foster perceptions of legitimacy. Therefore, local state history should positively impact individual's trust on local state institutions. In this section I document a strong positive relationship between state history and individual´s trust in local policy makers. I take particular attention to traditional leaders. Colonization did not eliminate several important pre-colonial obligations of the African traditional leaders. Michalopoulos and Papaioannou (2013b) document the strong influence of traditional leaders in governing the local community. In particular, local traditional leaders still play an important role on the allocation of land and the resolution of local disputes (Michalopoulos and Papaioannou 2013b). Nonetheless, the way they still exercise public authority vary between and within countries (Logan, 2013). I present strong and robust evidence that within-country differences in state history can explain popular support for local traditional leaders. In addition, I show that Michalopoulos and Papaioannou (2013b)'s findings on the strong influence of traditional leaders can be explained by the longevity of pre-cololinial institutions. That is, I find a strong positive statistical association between state history and individuals' perception on

[43] For instance, a legitimacy score accounts for almost 50% of the State Fragility Index computed by the Center for Systemic Peace. Moreover, the operational definition of fragility in the index is associated with state capacity to manage conflict.

the influence of traditional leaders governing the local community.

Sources and Description of Individual-Level Data

My analysis is based on the Round 4 of Afrobarometer in 2008 and 2009 (Afrobarometer 4, from now on). The Afrobarometer 4 is a collection of comparative series of nationally representative surveys for twenty countries in Sub-Saharan Africa: Benin, Botswana, Burkina Faso, Cape Verde, Ghana, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mozambique, Namibia, Nigeria, Senegal, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe. These countries have undergone some degree of political and economic liberalization during the last 20 years (Logan, 2013). In addition, the Afrobarometer 4 sample does not include countries under authoritarian regimes or civil wars (Afrobarometer, 2007). Nonetheless, all the countries in the Afrobarometer 4 sample but Benin, Burkina Faso, Cape Verde, and Malawi experienced violent conflict events during the period 1989-2010.[44] They also present high heterogeneity in key variables such as state history, historical conflict, and other correlates of civil conflict.

The Afrobarometer 4 relies on personal interviews conducted in local languages where the questions are standardized so responses can be compared across countries (Afrobarometer, 2007). These questions asses, among other topics, individuals attitudes toward democracy, markets, and civil society. In particular, I exploit information regarding individuals attitude toward state institutions and trust in politicians, public servants, and other individuals in general. I also benefit from a module of questions on local traditional authority. As described in detail below, the information in Afrobarometer 4 also allows me to construct controls at the level of village (i.e: enumeration area) and district.

The original sample size in Afrobarometer 4 is over 26,000 respondents. Cape Verde and Lesotho are not included in my analysis.[45] In addition, districts that I was not able to georeference, as well as individuals who could not be matched with ethnic names in Murdock's (1959) map were removed from the sample.[46] The final sample consists of 22,527

[44]The list of countries in Afrobarometer 4 with at least one conflict with more than 25 deaths during the period 1989-2010 is (event counts in parenthesis): Botswana (1), Ghana (34), Kenya (307), Lesotho (5), Liberia (510), Madagascar (39), Mali (98), Mozambique (261), Namibia (21), Nigeria (319), Senegal (187), South Africa (2624), Tanzania (9), Uganda (1549), Zambia (10), and Zimbabwe (45).

[45]I exclude Lesotho and Cape Verde from my analysis for several reasons. I exclude Cape Verde because it was not taken into account in the original computation of my state antiquity index, no question on traditional leaders were asked during the round 4 of Afrobarometer, and difficulties to match the ethnicities of the respondents with Murdock's data. I exclude Lesotho due to difficulties to match ethnicities.

[46]My georeferencing work was built upon a previous work by Stelios Michalopoulos.

respondents from 1,625 districts and 221 different ethnic groups under Murdock's (1959) classification.[47]

State History and Trust in Local Policy Makers

I examine the statistical relationship between attitudes toward institutions and state history by estimating different specifications of the following equation:

$$Attitude_{i,e,a,d,r} = \alpha + \beta SH_d + I^{'}_{i,e,a,d,r}\Gamma + A^{'}_{a,d,r}\Delta + D^{'}_{d,r}E + X^{'}_{d}H + \eta_r + \theta_e + \epsilon_{i,e,a,d,r} \quad (3)$$

where i, e, a , d, and r index individuals, ethnicity, enumeration area (village), district, and region (within a country), respectively. The variable SH_d represents the state history measure calculated for the homeland of the ethnic group historically predominant in the district. The vector $I^{'}_{i,e,a,d,r}$ denotes a set of the respondent's characteristics such as age, age squared, ten education level dummies, five living condition dummies, an unemployment status dummy, and a gender dummy.[48]

The vector $A^{'}_{a,d,c}$ denotes a set of enumeration area-level covariates including a urban dummy and a subset of variables designed to capture the prevalence of public good provision.[49] It is conceivable that individuals who are more satisfied with the local provision of public goods would tend to trust more in local policy makers. In addition, Gennaioli and Rainer (2007b) argue that history of state centralization had an impact on the quality of local government public provision.[50] This hypothesis is contested by Bandyopadhyay and Green (2012) who find no correlation between pre-colonial centralization and local public good provision in

[47] 320 ethnicities are originally self-reported in my sample. Appendix includes the list of ethnicities and their match with names in Murdock's (1959) map

[48] The education variable takes value from 0 (no formal schooling) to 10 (post-graduate). The living condition variable is a self assessment of the respondent and takes values from 1 (very bad) to 5 (very good). Unemployment and gender are dummies variables taking value 1 if the respondent is unemployed and male, respectively. The Afrobarometer 4 does not include information on occupation of the respondent.

[49] I introduce 6 dummies indicating the presence of police, school, electricity, piped water, sewage system, and health clinic. Note that an enumeration area or village is the lowest order administrative unit available in Afrobarometer 4.

[50] Although robust to different specifications, the evidence in Gennaioli and Rainer (2007b) is arguably far from being conclusive due to pitfalls of aggregation of ethnographic data at the country level (and the number of countries being small).

Uganda.[51] I add these potentially endogenous controls to argue that the hypothesized impact of state history on attitudes is not completely mediated by better public good provisions. Nonetheless, it is worth to note that the introduction of the public good provision dummies has little impact on the estimation of the main coefficient of interest.

The vector $D'_{d,c}$ is a set of district-level variables accounting for differences in development, which includes distance to the capital city, infant mortality, and per capita light density (in logs).[52] The $X'_{d,c}$ denotes a vectors of district-level covariates, respectively; which are included in different specifications of equation (3) and are discussed below. Finally, η_r and θ_e are region and ethnicity of the respondent fixed effect. Since the main variable of interest, i.e: SH_d, varies at the ethnic homeland level, I adjust the standard errors for potential clustering at that level.[53]

OLS results. In table 11 I present the baseline results for four different outcomes variables. I focus in three different questions on trust. The question asked "How much do you trust in each of the following" and then it listed specific policy makers. I recoded each original answer to a 5-point scale where 1 is "not at all" and 5 is "a lot". Following the methodology in Logan (2013), I coded the answers "don't know" at the mid-point. I focus on trust in local policy makers (which is the average score for the questions on trust in local councilors and traditional leaders), on exclusively trust in traditional leaders, and finally on trust in a national institution: the President (or Primer Minister). I also focus on individuals' perception on the influence of traditional leaders in governing the local community to document the persistence of traditional pre-colonial institutions.[54]

All specifications include respondent's ethnic group fixed effect, region fixed effect, individual-level, village-level, and district-level controls. It is worth to discuss the rational for the inclusion of ethnic fixed effect: First, I want to capture those ethnic-specific factors that may both affect the attitudes and may correlate with my state antiquity index at the location level. Second, I want to emphasize that it is the history of the location where people live rather than the history of the people what matter the most for legitimacy of the local policy makers. I am able to identify β, even after the introduction of ethnic fixed effect, because al-

[51] Although testing Gennaioli and Rainer's (2007b) main hypothesis at the local level represents an improvement from the original work, it is unclear that results in Bandyopadhyay and Green (2012) can be regarded as representatives of the whole Sub-Saharan Africa.

[52] Bandyopadhyay and Green (2012) also show that ethnic pre-colonial centralization positively correlates with level of development at the sub-national and individual levels in Uganda.

[53] See appendix for all the details regarding definitions of the variables included in my analysis.

[54] The individuals answered "How much influence do traditional leaders currently have in governing your local community?". The variable is coded in a 5-point scale from 1 (none) to 5 (great deal of influence). Again, I coded the answer "don't know" at the mid-point.

most half of the individuals in my sample are not currently living in the historical homeland of their ancestors. Thus, it is also important to emphasize that the estimated coefficient for β would be be representing the average statistical relationship between state history of the district and attitude toward local institutions for those individuals living outside the historical homeland of their ethnic groups.

There is a statistically significant positive relationship between state history of the location and individual's trust in local policy makers (Column 1 in Table 11). I find similar pattern when focus exclusively on trust in traditional leaders. Point estimate in column 3 suggests that people living in location with long history of statehood perceive that the local traditional leaders have a great deal of influence in local issues. This result confirm previous findings in the literature documenting the persistence and importance of pre-colonial institutions in today's Sub-Saharan Africa. I do not find any statistical relationship between state history of the location and trust in the President (or Prime Minister) of the country. This result support my hypothesis that an improved local state capacity (from historical exposure to centralized institutions) should impact attitudes toward local policy makers, not any policy maker.

Further district-level controls. In the online appendix I consider a subset of district-level controls included in X_d'. I consider the potential confounding effect of historical slave trade prevalence, the proximity to historical trade routes, and temperature volatility.[55] I construct the weighted average slave trade prevalence of the district based on the slave trade exposure of all the ethnic groups reported in the survey for that district. Proximity to historical trade routes is the geodesic distance from the centroid of the district to the closest trade route. Intertemporal temperature volatility is calculated for a 100-km radius buffer around the centroid of each district. Results in Table S.4 show that the addition of these controls slightly increase the size of point estimate reported in Table 11.[56]

Internal vs External Cultural Norms. I attempt to distinguish whether it is the state history of the place where people live versus the state history of the ancestors of the people living

[55] Nunn and Wantchekon (2011) show that individuals from ethnic groups that were strongly affected by the slave trade in the past are less trusting today. In particular, those individuals trust less on the local councils. I argued above that the relationship between the history of state formation and slave trade prevalence is ambiguous. Nonetheless, if any relationship exists (regardless of its direction), omitting the impact of slave trade would introduce a bias in the estimation of my coefficient of interest.

[56] Adding these controls separately lead to similar results.

Table 11: State History and Attitudes Toward Local Policy Makers

	Dependent Variable			
	Trust Local	Trust Leader	Leader Influence	Trust President
	(1)	(2)	(3)	(4)
State History 1000 - 1850 CE	0.297**	0.227*	0.368***	0.141
(Predominant Ethnic Group in District)	(0.127)	(0.128)	(0.131)	(0.140)
Observations	22,516	22,528	22,115	22,533
R-squared	0.194	0.187	0.185	0.225

OLS Estimate. Robust standard errors clustered at the historical ethnic homeland level in parentheses. *** p<0.01, **p<0.05, * p<0.1. For columns (1), (2), and (4) the dependent variable is based on the response to the questions "How much do you trust in local councilors / traditional leaders/ president ?" Answers follow a 5-point scale where 1 is "not at all" and 5 is "a lot". Trust in local policy maker is the average for local councilors and traditional leaders. The leader influence variable is based on the question "How much influence do traditional leaders currently have in governing your local community?" The variable is coded in a 5-point scale from 1 (none) to 5 (great deal of influence). The state history variable is calculated for the historical ethnic homeland (based on Murdock's map) in which the respondent currently lives. All specifications include respondent's ethnic group fixed effect, region fixed effect, individual-level controls, village-level controls, and district-level controls. Individual-level controls are age, age squared, unemployed dummy, male dummy, 5 living conditions dummies, 10 education level dummies. Village controls are 6 indicators for public good provisions: police station, school, electricity, piped water, sewage, and health clinic. District controls are distance to the capital of the country, infant mortality, per capita light density at nights, and urban indicator.

in that place what matters for people's opinion about state legitimacy. For that purpose I also construct the average state history of each respondent's ethnic groups based on the historical distribution of ethnic homelands (from Murdock 1959). The first specification in column 1 of Table 12 includes ethnic fixed effect and suggests that people living in districts with long history of statehood remarkably trust more in local policy makers. In column 2 I do not include ethnic fixed effect but include a fixed effect for the predominant ethnic group where the respondent lives and focus on the average state history of the ethnic group of the respondent. I do not find a statistically significant association between long history of statehood at the ethnic level and trust in local policy makers. If I do not include any of the aforementioned fixed effects and run horse race between the two measures of state history I find that only the state history of the location matters for trust in local institutions. These are indeed striking results since ethnicity is arguably one of the most relevant vehicles for cultural norms at the individual level. Therefore, the strong positive impact of state history of the predominant ethnic group on legitimacy (even when holding ethnic characteristics fixed) and the apparent nonexistent statistically association between the individual ethnic-based state history measure (when holding the predominant ethnic group characteristics fixed) strongly suggests that it is the long run exposure to statehood of the location, rather of the history of the ancestors of the people living in that location, what determines individual's belief about local state legitimacy.

Why do individuals whose ancestors were not indigenous to the location where they currently live trust in local policy makers (formal and informal -traditional- institutions)? A given individual, independently of her ethnic origin, learn about the quality of the local institutions and forms her perception on legitimacy of these institutions by her finite number of interactions with those institutions. She is affected, in the short run, by the accumulated stock of learning with centralized institutions of the current local institutions (improved state capacity). That is, the long-run exposure that matters is the exposure experienced by the local institutions.

Table 12: Internal vs External Factors

Dependent Variable: Trust in Local Policy Makers

	(1)	(2)	(3)
State History 1000 - 1850 CE	0.297**		0.295**
(Predominant Ethnic Group in District)	(0.127)		(0.140)
State History 1000 - 1850 CE		-0.0108	0.0024
(Ethnic Group of Respondent)		(0.0478)	(0.053)
Ethnic Group of Respondent FE	Y	N	N
Predominant Ethnic Group FE	N	Y	N
Observations	22,516	22,516	22,516
R-squared	0.194	0.201	0.1831

OLS Estimate. Robust standard errors clustered at the historical ethnic homeland level in parentheses. *** p<0.01, **p<0.05, * p<0.1. All specifications include region fixed effect, individual-level controls, village-level controls, and district-level controls.

Do individuals living in districts with relative long historical exposure to statehood trust more in general? Results in Table 13 suggest that my previous results was not just picking up a higher level of generalized trust. Respondents living in districts with long history of statehood do not trust more in compatriots (column 1), relatives (column 2), other people (column 3), or politicians in general (column 4).[57] All the coefficients are not statistically

[57]Trust in politicians is the first principal component of each individual's trust level in the president -

different from zero under usual levels of confidence. In fact, all the point estimates are of a relative small size.

Table 13: State History and Other Dimensions of Trust

	Dependent Variable: Trust in			
	Compatriots	Relatives	Other People	Politicians
	(1)	(2)	(3)	(4)
State History 1000 - 1850 CE	-0.0139	0.0399	-0.0418	0.0707
(Predominant Ethnic Group in District)	(0.0836)	(0.0777)	(0.108)	(0.137)
Observations	22,155	22,453	22,373	22,383
R-squared	0.180	0.186	0.185	0.242

OLS Estimate. Robust standard errors clustered at the historical ethnic homeland level in parentheses. *** $p<0.01$,** $p<0.05$, * $p<0.1$. The dependent variable is based on the response to the question "How much do you trust in " compatriots/relatives /other people/polticians?" Answers follow a 5-point scale where 1 is "not at all" and 5 is "a lot". The state history variable is calculated for the historical ethnic homeland (based on Murdock's map) in which the respondent currently lives. All specifications include respondent's ethnic group fixed effect, region fixed effect, individual-level controls, village-level controls, and district-level controls. Controls are described in Table 12.

State History and Attitude Toward Local Policy Makers in Uganda

In this section I analyze the empirical relationship between state history at the district level and individual's attitudes toward local policy makers in Uganda. I focus in a measure of state history at the district level as opposed of looking at the predominant ethnic group level as in my previous analysis for two reasons. First, Murdock's map, which is used in my previous analysis, only displays approximately twenty ethnic homelands in Uganda. Using averages of my measure of state history for this small amount of units masks informative heterogeneity within those borders. Nonetheless, using this level of observation lead to similar qualitative results although the first stage for the IV cases is somehow weaker. Second, using observations at the district level in Uganda allows me to exploit a richer set of covariates (such as poverty rates and population counts).

or Prime Minister for some countries-, the parliament -or national assembly-, and the opposition political parties. Adding separately each of these components of this measure lead to similar results (not shown).

Table 14: Trust in Local Policy Makers and State History in Uganda

	Trust in Local Policy Maker				Traditional Leader	
	(1)	(2)	(3)	(4)	(5) Trust	(6) Influence
State History 1000 - 1850 CE (District)	0.593*	0.597*	0.713**	0.688**	0.974	0.839
	(0.335)	(0.346)	(0.324)	(0.338)	(0.768)	(0.783)
Soil Suitability	N	Y	Y	Y	Y	Y
District Controls	N	N	Y	Y	Y	Y
Public Good Provision Dummies	N	N	N	Y	Y	Y
Observations	2,413	2,413	2,413	2,413	2,413	2,413
R-squared	0.031	0.031	0.032	0.034	0.049	0.072

OLS Estimate. Robust standard errors clustered at the district level in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$ The state history variable is calculated at the district level. All the specifications include individual-level controls and region fixed effect. See Table 12 for details. Soil suitability includes suitability for growing cereals and and suitability for pasture (FAO's GAEZ database). District controls are population in 2002, poverty rate in 2002, and urban indicator. Public good provisions dummies denote the the existence of police station, school, electricity, piped water, sewage, and health clinic at the village level. See Table 12 for definitions of dependent variables.

OLS results. Before turning into the discussion of the IV results I report OLS point estimates in Table 14. In the first four columns I focus on trust in local policy makers as a dependent variable and show how the OLS point estimates are affected with the introduction of different set of controls. In the first column I only include individual-level controls and region fixed effects.[58] There is a positive statistically significant correlation between state history at the district level and trust in local policy makers. The point estimate does not change if I add two controls for suitability of the soil for pasture and growing cereals (column 2). When I add district level controls (i.e; population, poverty rate, and urban indicator) the point estimate increases in size and the standard errors slightly decrease. People from urban and populated areas tend to show less support for local institutions. Including a set of public good provision dummies slightly decreases the size of the previous point estimates. In column 5 and 6 I focus on attitudes toward traditional leaders and find a positive correlation between state history and trust in and perceived influence of traditional leaders, albeit these correlations are not statistically significant at standard levels of confidence.

IV results. In Table 15 I shows IV point estimates for the three specifications in columns 4 to 6 of Table 14. I find a strong positive relationship between state history and the three outcomes, namely, trust in local policy makers, trust in traditional leader, and perceived influence of the traditional leader . The IV point estimates are much larger than in the OLS case.

Does distance to Bigo bya Mugenyi impact other dimensions of trust? In Table 16 I present a placebo test in the spirit of Table 13. My instrument does not statistically relate to other dimensions of trust different to the specific to the local policy makers. That is, migratory distance to Bigo bya Mugenyi does not explain trust in relatives, other people known, compatriots, politicians in general nor the President (or Primer Minister) in particular.

*Additional robustness check*s. In Table S.5 in the online appendix I show that results are qualitatively similar when I take into account if the respondent is Acholi or lives in Acholiland. Being the respondent from Ganda ethnic group which is linked to the Buganda Kingdom and is the politically strongest Ugandan group, or having the district a higher share of Ganda people does not affect the main conclusions for any of the three outcome

[58] Adding ethnic fixed effect does not qualitatively affect the conclusion of this analysis. I choose not to focus in this specification because more than 70 percent of respondents in Uganda still live in the homeland of their ancestors.

Table 15: IV Estimates. State History and Attitudes Toward Local Policy Makers

Dependent Variable	(1) Trust Local Policy Maker	(2) Trust Traditional Leader	(3) Traditional Leader Influence
State History 1000 - 1850 CE (District)	1.573**	4.606***	3.735**
	(0.654)	(1.381)	(1.708)
First-Stage Statistic	15.11	15.11	15.11

Robust standard errors clustered at the district level in parentheses. *** p<0.01, ** p<0.05, * p<0.1
The state history variable is calculated at the district level. All specifications include individual-level controls, region fixed effect, soil suitability for cereals and pasture, district level controls, and public good provision dummies. . N = 2,413

Table 16: Placebo Test. Distance to Mugenyi and Other Dimensions of Trust

	Dependent Variable: Trust in				
	Relatives	Other People	Compatriots	Politicians	President
	(1)	(2)	(3)	(4)	(5)
Migratory Distance to Bigo bya Mugenyi	0.344	-0.0841	0.403	-0.385	-0.190
	(0.286)	(0.422)	(0.550)	(0.376)	(0.386)
Observations	2,411	2,404	2,406	2,413	2,413
R-squared	0.066	0.087	0.086	0.165	0.142

OLS Estimate. Robust standard errors clustered at the district level in parentheses. *** p<0.01, ** p<0.05, * p<0.1
All specifications include individual-level controls, region fixed effect, soil suitability for cereals and pasture, district level controls, and public good provision dummies. See Table 14 for definitions of dependent variables. N = 2,413

variables. The results are also robust to the inclusion of Ethnic fractionalition at the district level, the historical exposure of respondent's ethnic group to the slave trade, proximity to historical trade routes, or intertemporal temperature volatility.

Is conflict an outcome or a mediating channel? The documented negative relationship between state history and trust in local institutions is consistent with my hypothesis that trust in (and legitimacy of) local policy makers, in particular traditional leaders, is one of the potential channel through which a long exposure to centralized institutions helps to mitigate the prevalence of modern conflict. However, an alternative explanation is also possible. Long exposure to institutions mitigates conflict independently of the initial level of legitimacy of the local institutions and this good performance of the institutions in dealing with conflict shaped perception of legitimacy of and confidence in local institutions. In other words, the documented positive effect of state history on trust would be due to state history mitigating conflict. In fact, Rohner, Thoenig, and Zilibotti (2013) argue that conflict prevalence affect generalized trust in Uganda.

If conflict is the mediating channel in my story one should expect two empirical patterns: first, a negative relationship between conflict prevalence and state history (which has been already documented here in a cross-section analysis); and second, the effect of state history on trust should become smaller once influence of conflict in trust is accounted for. In Table 17 I show that none of my IV point estimates is substantially affected by the inclusion of a measure of conflict prevalence at the district level which I constructed using UCDP data.[59] Note that the first stage shows that indeed state history in Uganda and conflict prevalence at the district level are (strongly) negatively related (point estimate not shown). An additional interesting pattern arises with the inclusion of conflict prevalence in my specifications: although the point estimates are not statistically significant at the standard level of confidence, higher prevalence of conflict is negatively correlated with trust in local policy makers (this point estimate becomes statistically significant if I exclude state history from the specification) but positively correlated with trust in traditional leaders. These results provide evidence consistent with a direction of causality going from state history to trust and then to conflict prevalence. Moreover, recall that I do not find any impact of state history on generalized trust which is the dimension more likely to be affected by conflict as argued in Rohner, Thoenig, and Zilibotti (2013).

[59]I measure prevalence of conflict at the district level following the exact same procedure as in my grid-cell analysis.

Table 17: State History, Attitudes, and Conflict Prevalence

	Dependent Variable: Trust in			
	Local Policy Maker		Traditional Leader	
	(1)	(2)	(3)	(4)
State History 1000 - 1850 CE (District)	1.573**	1.457**	4.606***	4.834***
	(0.654)	(0.638)	(1.381)	(1.500)
Conflict Prevalence (District)		-0.455		0.898
		(0.309)		(0.852)
First-Stage Statistic	15.11	13.11	15.11	13.11

IV Estimate. Robust standard errors clustered at the district level in parentheses. *** p<0.01, ** p<0.05, * p<0.1
All specifications include individual-level controls, region fixed effect, soil suitability for cereals and pasture, district level controls, public good provision dummies, and distance to Kampala. See Table 14 for definitions of dependent variables. N = 2,413

6 Conclusion

This paper adds to a growing literature in economics that seeks to better understand the role that historical factors play in shaping contemporary development outcomes. In particular, it contributes to the understanding of the developmental role of history of statehood by rigorously looking at the statistical relationship between state history and the prevalence conflict at the sub-national level. For this purpose, I introduce of a novel index of state history at the sub-national level. I uncover a strong negative statistical relationship between my state history index and the prevalence of modern conflict. This relationship is robust to several confounding factors. Although I cannot rule out the possibility that unobservables are partially accounting for this uncovered statistical association, I argue that the influence of those factors would have to be substantially larger than the documented influence of observed factors to explain away my main result.

To determine whether this relationship is causal, I pursued an instrumental variable strategy. Due to the difficulty of finding a good source exogenous variation for state history in the entire Sub-Saharan African sample I focus on Uganda. I exploit plausible exogenous variation in the distance to the archaeological site of Bigo Bya Mugenyi where historians locate the core of the Bacwezi dynasty; the first known attempt of political centralization in pre-colonial Uganda. Since it is believed that the Bacwezi were a ruling pastoral clan, not indigenous to the region, who moved away from Bigo Bya Mugenyi after two generations, I interpret this brief settling as an arrival of an innovation (i.e; centralized institutions) which later spread to adjacent regions. The IV point estimates suggest a strong negative causal effect of state history on conflict prevalence.

I also exploit panel data variation in the prevalence of conflict, weather-induced productivity shocks, and the interaction of my state history index with those shocks to document that location with relatively high historical exposure to state capacity are remarkably less prone to experience conflict when hit by a negative agricultural productivity shock.

I then turn to specific potential mechanisms and examine an explanation for the uncovered relationship. By exploiting individual-level survey data, I show that state history can be linked to people's positive attitudes towards state institutions. In particular, I show that key state institutions, along with traditional leaders, are regarded as more trustworthy by people living in district with long history of statehood. These OLS results uncovered for 18 Sub-Saharan countries are again reconfirmed in an instrumental variable approach for Uganda.

I discussed and ruled out several potential confounding factors that are also consistent with my empirical findings. Bearing in mind that identifying a causal effect of historical presence of statehood on contemporary conflict is a difficult task, I present empirical evidence that hard-to-account-for factors manifested in differences in long-run exposure to centralized institutions crucially matters to understand contemporary conflict. In sum, the evidence presented suggests that long run exposure to statehood can be interpreted as a proximate determinant of modern civil conflict.

References

[1] Afrobarometer. 2007. "Round 4 Survey Manual." Available at: http://www.afrobarometer.org/files/documents/survey_manuals/survey_manual_r4_english.pdf

[2] Ahlerup, P. and O. Olsson. 2012. "The Roots of Ethnic Diversity." Journal of Economic Growth 17(2), 71-102

[3] Ajayi, J. F. and M. Crowder. 1985. "Historical Atlas of Africa." Cambridge University Press,

[4] Alesina, A., A. Devleeschauwer, W. Easterly, S. Kurlat, and R. Wacziarg. 2003. "Fractionalization." Journal of Economic Growth, 8:155-94.

[5] Alesina, A., P. Giuliano, and N. Nunn. 2013. "On the Origin of Gender Roles: Women and the Plough." Quarterly Journal of Economics 128, no. 2: 469-530.

[6] Alsan, M., 2013. "The Effects of the Tse-Tse Fly on African Development." mimeo.

[7] Altonji, J. G., T. E. Elder, and C. R. Taber. 2005. "Selection on Observed and Unobserved Variables: Assessing the Effectiveness of Catholic Schools," Jounal of Political Economy, 113(1), 151— 184.

[8] Angrist, J. D. and J.-S. Pischke. 2009. "Mostly Harmless Econometrics : An Empiricistś Companion." Princeton: Princeton University Press.

[9] Arbatli, E., Q. Ashraf, and O. Galor. 2013. "The Nature of Civil Conflict." mimeo.

[10] Ashraf, Q. and S. Michalopoulos. 2013. "Climatic Fluctuations and the Diffusion of Agriculture." NBER Working Paper 18765.

[11] Ashraf, Q. and O. Galor. 2013. "The "Out of Africa" Hypothesis, Human Genetic Diversity, and Comparative Economic Development." American Economic Review, 103(1):1-46.

[12] Ashraf, Q. and O. Galor. 2013. "Genetic Diversity and the Origins of Cultural Fragmentation." American Economic Review Papers and Proceedings, 103(3): 528-533.

[13] Ashraf, Q. and O. Galor. 2013. "The "Out of Africa" Hypothesis, Human Genetic Diversity, and Comparative Economic Development." American Economic Review, 103(1):1-46.

[14] Bandyopadhyay, S. and E. Green. 2012. "Pre-Colonial Political Centralization and Contemporary Development in Africa." Afrobarometer Working Paper No. 141.

[15] Bates, R. H. 1983. "Essays on the Political Economy of Rural Africa." Cambridge University Press, New York.

[16] Bates, R. H. 2013. "The Imperial Peace in Colonial Africa and Africa's Underdevelopmet". in Emmanuel Akyeampong, Robert H. Bates, Nathan Nunn, and James A. Robinson, eds., Africa's Development in Historical Perspective, Cambridge: Cambridge University Press, forthcoming.

[17] Barr, A. 2003. "Trust and expected trustworthiness: experimental evidence from Zimbabwean villages." Economic Journal, 113(489), 614-630.

[18] Barraclough. G. 1979. "The Times Atlas of World History. " Maplewood, N.J.

[19] Baum,C. F., M. E. Schaffer, and S. Stillman. 2007)."Enhanced Routines for Instrumental Variables/Generalized Method of Moments Estimation and Testing," The Stata Journal, 7(4), 465–506.

[20] Ben-Amos Girshick, P., and J. Thornton. 2001. "Civil War in the Kingdom of Benin, 1689-1721: Continuity or Political Change?," Journal of African History, 42(3), 353-376.

[21] Benjaminsen, T.A., K. Alinon,, H. Buhaug, and J.T Buseth. 2012. "Does Climate Change Drive Land-use Conflicts in the Sahel," Journal of Peace Research 49(1): 97–111.

[22] Besley, T. and T. Persson. 2010. "State capacity, conflict and development", Econometrica 78, 1-34.

[23] Besley, T. and M. Reynal-Querol. 2012. "The Legacy of Historical Conflict. Evidence from Africa." Working paper.

[24] Blattman, C. and E. Miguel. 2010. "Civil War." Journal of Economic Literature, 48(1): 3-57.

[25] Bockstette, V., A. Chanda, and L. Putterman. 2002. "States and markets: The advantage of and early start." Journal of Economic Growth, 7, 347–369.

[26] Borcan, O., O. Olsson, and L. Putterman. 2013. "State History over Six Millenia: New Data and Results". mimeo.

[27] Brown, C., R. Meeks, K. Hunu, and W. Yu. 2011. "Hydroclimate risk to economic growth in sub-Saharan Africa." Climatic Change, 106 (4), 621-647.

[28] Buhaug, H. and J. K. Rød. 2006. "Local determinants of African civil wars, 1970-2001." Political Geography 25(3): 315 -335

[29] Burke, M., S.M. Hsiang, and E. Miguel. 2013. "Quantifying the Climatic Influence on Human Conflict, Violence and Political Instability." mimeo.

[30] Chandler, T. 1987. "Four Thousand Years of Urban Growth: An Historical Census." Edwin Mellon Press, Lewiston, NY.

[31] Chrétien, J.P. 2003. "The Great Lakes of Africa: Two Thousand Years of History." New York: Zone Books.

[32] Cederman, L. E. 2008. "Articulating the Geo-Cultural Logic of Nationalist Insurgency." In Order, Conflict, and Violence, edited by Stathis N. Kalyvas, Ian Shapiro, and Tarek Masoud. Cambridge: Cambridge University Press.

[33] Cervellati, M., U. Sunde., and S. Valmori, "Disease Environment and Civil Conflicts," 2011. IZA Discussion Paper No. 5614.

[34] Conley, T.G. 1999. "GMM Estimation with Cross Sectional Dependence." Journal of Econometrics, 92(1): 1-45

[35] Conley, D., G. McCord, and J. Sachs. 2010. "Improving Empirical Estimation of Demographic Drivers: Fertility, Child Mortality & Malaria Ecology," Social Science Research Network Working Paper.

[36] Collier, P. 1998. "The Political Economy of Ethnicity." Annual World Bank Conference on Development Economics, ed. B. Preskovic and J. E. Stigletz, 387-399. Washington, D.C.: The World Bank.

[37] Collier, P. and A. Hoeffler. 2004. "Greed and grievance in civil wars," Oxford Economic Papers, 56, 663-695.

[38] Collier, P. , A. Hoeffler, and M. Sonderbom. 2008. "Post-conflict risk," Journal of Peace Research, 45 (4): 461-478.

[39] Dee, D.P., Uppala, S. M., Simmons, A. J., Berrisford, P., Poli, P., Kobayashi, S., Andrae, U., Balmaseda, M. A., Balsamo, G., Bauer, P., Bechtold, P., Beljaars, A. C. M., van de Berg, L., Bidlot, J., Bormann, N., Delsol, C., Dragani, R., Fuentes, M., Geer, A. J., Haimberger, L., Healy, S. B.,

Hersbach, H., Hólm, E. V., Isaksen, L., Kållberg, P., Köhler, M., Matricardi, M., McNally, A. P., Monge-Sanz, B. M., Morcrette, J.-J., Park, B.-K., Peubey, C., de Rosnay, P., Tavolato, C. , Thépaut, J.-N. , Vitart, F.. 2011. "The ERA-Interim reanalysis: configuration and performance of the data assimilation system," Quarterly Journal of the Royal Meteorological Society, 137 (656), 553-597.

[40] Depetris-Chauvin, N., Mulangu, F., and Porto, G. 2012 "Food Production and Consumption Trends in Sub-Saharan Africa: Prospects for the Transformation of the Agricultural Sector". Background paper for the First African Human Development Report, UNDP.

[41] Depetris-Chauvin, E. and Weil, D.N. 2013. "Malaria and Early African Development: Evidence from the Sickle Cell Trait." NBER Working Paper No. 19603

[42] Diamond, J. 1997. "Guns, Germs and Steel." W.W. Norton & Co., New York.

[43] Dunbar, A.R. 1965. "A history of Bunyoro-Kitara. East African Studies," Nairobi. Makerere Institute of Social Research/ Oxford University Press

[44] Durante, R. 2009. "Risk, Cooperation and the Economic Origins of Social Trust: an Empirical Investigation," MPRA Paper 25887, University Library of Munich, Germany.

[45] Earth System Research Laboratory, NOAA, U.S. Department of Commerce. 2009. "NOAA-CIRES Twentieth Century Global Reanalysis Version II." Research Data Archive at the National Center for Atmospheric Research, Computational and Information.

[46] Easterly, W. and R. Levine. 1997. "Africa's Growth Tragedy: Policies and Ethnic Divisions." The Quarterly Journal of Economics, 112(4): 1203-1250.

[47] Eggimann, G. 2000. "La Population des villes des tiers mondes de 1500 la 1950," Universite de Geneve, Centre d'histoire economique comparee.

[48] Eck, K. 2012. "In Data We Trust? A Comparison of UCDP GED and ACLED Conflict Events Datasets," Cooperation and Conflict, 47(1) 124-141.

[49] Ehret, C. 2002. "The civilizations of Africa: a history to 1800." University Press of Virginia.

[50] Ejiogu. E. C. 2011. "State Building in the Niger Basin in the Common Era and Beyond, 1000−Mid 1800s: The Case of Yorubaland." Journal of Asian and African Studies 2011 46: 593.

[51] Englebert, P. 2000a. "State Legitimacy and Development in Africa." Lynne Rienner Publishers.

[52] Englebert, P. 2000b. "Pre-Colonial Institutions and Post-Colonial States and Economic Development in Tropical Africa." Political Reseach Qarterly 53(7) : 7-36.

[53] Esteban, J., L. Mayoral, and D. Ray. 2012. "Ethnicity and Conflict: An Empirical Study." American Economic Review, 102(4): 1310-1342

[54] Fearon, J. D., and D. D. Laitin. 2003. "Ethnicity, Insurgency, and Civil War." American Political Science Review 97 (1): 75-90.

[55] Fearon, J. D. 2005. "Primary commodities exports and civil war," Journal of Conflict Resolution, 49, 4, 483-507.

[56] Fenske, J. 2012. "Ecology, trade and states in pre-colonial Africa." Forthcoming, Journal of the European Economic Association.

[57] Galor, O. 2011. "Unified Growth Theory". Princeton University Press.

[58] Gennaioli, N. and I. Rainer. 2007a. "Precolonial Centralization and Institutional Quality in Africa." In M. Gradstein and K. Konrad, ed., Institutions and Norms in Economic Development, MIT Press.

[59] Gennaioli, N. and I. Rainer. 2007b. "The Modern Impact of Precolonial Centralization in Africa," Journal of Economic Growth. 12:185-234

[60] Gilley, B. 2006. "The meaning and measure of state legitimacy: Results for 72 countries". European Journal of Political Research 45: 499-525.

[61] Goldewijk, K., Beusen, A. & Janssen, P. 2010. Long-term dynamic modeling of global population and built-up area in a spatially explicit way: HYDE 3.1. Holocene, 20, 565–573.

[62] Green, E. 2012. "On the Size and Shape of African States." International Studies Quarterly 56(2): 229–244.

[63] Harari, M. and E. La Ferrara. 2013. "Conflict, Climate and Cells: A Disaggregated Analysis." CEPR Discussion Paper no. 9277. London, Centre for Economic Policy Research. http://www.cepr.org/pubs/dps/DP9277.asp.

[64] Hariri, J.G. 2012. "The Autocratic Legacy of Early Statehood" American Political Science Review, 106 (3) 471-494.

[65] Herbert, L. S. 1966. "The Origins of African Kingdoms." Cahiers d'études africaines. Vol.6 N°23., 402-407.

[66] Herbst, J. 2000 "States and Power in Africa: Comparative Lessons in Authority and Control." Princeton University Press.

[67] Hutchison, Marc L. and K. Johnson. 2011. "Capacity to trust? Institutional capacity, conflict, and political trust in Africa, 2000–2005". Journal of Peace Research November 48: 737-752,

[68] Huillery, E. 2009. "History Matters: The Long Term Impact of Colonial Public Investments in French West Africa," American Economic Journal - Applied Economics, 1(2): 176-215.

[69] Hyslop, D., and G. Imbens. 2001. "Bias from Classical and Other Forms of Measurement Error," Journal of Business and Economic Statistics.

[70] Jancec, M. 2013. "Do Less Stable Borders Lead to Lower Levels of Political Trust? Empirical Evidence from Eastern Europe." mimeo.

[71] La Porta, R., F. Lopez-De Silanes, A. Schleifer, and R. Vishny. 1999. "The quality of government", Journal of Law, Economic, and Organisation, 15: 222-279.

[72] Law, R. 1977. "The Oyo empire: c. 1600-c. 1836: a west African imperialism in the era of the Atlantic slave trade." Clarendon press.

[73] Lewis, H. S. 1966. "The Origins of African Kingdoms" In: Cahiers d'études africaines. 6 (23), 402-407.

[74] Liu, H., F. Prugnolle, A. Manica, and F. Balloux. 2006. "A geographically explicit genetic model of worldwide human-settlement history." American Journal of Human Genetics, 79, 230–237.

[75] Logan , C. 2013. "The Roots of Resilience: Exploring Popular Support for African Traditional Authorities." African Affairs, 112 (448): 353-376.

[76] McEvedy, C. 1995. "Penguin Atlas of African history." New ed., rev. ed. London; New York: Penguin Books.

[77] Michalopoulos, S. 2012. "The Origins of Ethnnolinguistic Diversity." American Economic Review, 102(4): 1508-39.

[78] Michalopoulos, S. and E. Papaioannou. 2012. "The Long Run Effects of the Scramble for Africa," NBER w17620.

[79] Michalopoulos, S. and E. Papaioannou. 2013."Pre-colonial Ethnic Institutions and Contemporary African Development." Econometrica, 81(1): 113–152.

[80] Michalopoulos, S. and E. Papaioannou. 2013b. "On the Ethnic Origins of African Development: Traditional Chiefs and Pre-colonial Political Centralization." mimeo.

[81] Michalopoulos, S. and E. Papaioannou. 2013c. "National Institutions and Subnational Development in Africa", Quarterly Journal of Economics, forthcoming.

[82] Miguel, E., and M. K. Gugerty. 2005. "Ethnic Diversity, Social Sanctions and Public Goods in Kenya," Journal of Public Economics, 89, 2325–2368.

[83] Miguel, E., S. Satyanath, and E. Sergenti. 2004. "Economic Shocks and Civil Conáict: An Instrumental Variables Approach." Journal of Political Economy 112 (4): 725-53.

[84] Moore, J. L., L. Manne, T. Brooks, N. D. Burgess, R. Davies, C. Rahbek, P. Williams and A. Balmford. 2002. "The Distribution of Cultural and Biological Diversity in Africa." Proceedings: Biological Sciences 269 (1501): 1645-1653

[85] Murdock, G. P. 1959. "Africa: Its People and their Culture History," McGraw-Hill Book Company, New York.

[86] Murdock, G. P. 1967. "Ethnographic Atlas." University of Pittsburgh Press.

[87] Muller, H.-P., C. Kock Marti, E. Seiler Schiedt, and B. Arpagaus. 2000. "Atlas vorklonialer Gesellschaften" . Reimer.

[88] Nelson, A. 2004. "African Population Database Documentation, UNEP GRID Sioux Falls." Available at: http://na.unep.net/siouxfalls/datasets/datalist.php

[89] Newton, K. 2007 "Social and political trust." In: Russell J Dalton & Hans-Dieter Klingemann (eds) Oxford Handbook of Political Behavior . New York: Oxford University Press, 342–361.

[90] Nunn, N. 2008. "The Long Term Effects of Africa's Slave Trades." Quarterly Journal of Economics. 123(1):139-176.

[91] Nunn, N. 2013. "Historical Development." Harvard University. mimeo

[92] Nunn N, and D. Puga . 2012. "Ruggedness: The Blessing of Bad Geography in Africa." Review of Economics and Statistics;94(1):20-36.

[93] Nunn N, and L. Wantchekon. 2011. "The Slave Trade and the Origins of Mistrust in Africa." American Economic Review. 101(7):3221-3252.

[94] Osafo-Kwaako, P. and J. Robinson. 2013. "Political centralization in pre-colonial Africa," Journal of Comparative Economics, 41 (1): 6-21.

[95] Özak, Ö. 2012. "The Voyage of Homo-œconomicus: some economic measures of distance." mimeo.

[96] Özak, Ö. 2012. "Distance to the Technological Frontier and Economic Development," Departmental Working Papers 1201, Southern Methodist University, Department of Economics.

[97] Persson, T. and G. Tabellini. 2009. "Democractic capital: The nexus of political and economic change", American Economic Journal: Macroeconomics 1, 88-126.

[98] Pinhasi, R., J. Fort, and A. J. Ammerman. 2005. "Tracing the Origin and Spread of Agriculture in Europe." PLoS Biology, 3(12): 2220-2228.

[99] Putterman, L. 2006. "Agricultural Transition Year: Country Data Set," Brown University. mimeo.

[100] Raleigh, C. and H. Hegre. 2009. "Population size, concentration, and civil war. A geographically disaggregated analysis," Political Geography, 8 (4): 224-238.

[101] Ramachandran, S., O. Deshpande, C. C. Roseman, N.A. Rosenberg, M.W. Feldman, and L. Cavalli-Sforza. 2005. "Support for the relationship of genetic and geographic distance in human populations for a serial founder effect origininating in Africa." Proceedings of the National Academy of Science USA, 102(44), 15942–15947.

[102] Reid, R. 2012. "Warfare in African History." Cambridge University Press.

[103] Schlenker, W., and D. B. Lobell. 2010. "Robust negative impacts of climate change on African agriculture." Environ. Res. Lett. 5 (1).

[104] Selway, J. and K. Templeman. 2012."The Myth of Consociationalism? Conflict Reduction in Divided Societies." Comparative Political Studies 45 (12): 1-30.

[105] Shaw, T. editor. 1993. "The Archaeology of Africa: Foods, Metals, and Towns." London: Routledge.

[106] Spoloare, E. and R. Wacziarg. 2013. "How Deep Are the Roots of Economic Development?" Journal of Economic Literature, 51(2), 1-45.

[107] Staiger, D., and J. H. Stock. 1997. "Instrumental variables regression with weak instruments." Econometrica 65(3): 557–86.

[108] Stock, J. H., J. H. Wright, and M. Yogo. 2002. "A Survey of Weak Instruments and Weak Identification in Generalized Method of Moments." Journal of Business and Economic Statistics, 20(4): 518-529.

[109] Sundberg, R, M. Lindgren and A. Padskocimaite. 2010. "UCDP GED Codebook version 1.0-2011," Department of Peace and Conflict Research, Uppsala University.

[110] Sundberg, R, and E. Melander. 2013. "Introducing the UCDP Georeferenced Event Dataset," Journal of Peace Research, 50(4), 523-532.

[111] Thyne, C. L. 2012. "Information, Commitment, and Intra-War Bargaining: The effect of Governmental Constriants on Civil War Duration." International Studies Quarterly. 56 (2) 307-321.

[112] Vansina, J. 1962. "A Comparison of African Kingdoms." Journal of the International African Institute, 32 (4) 324-335.

[113] Vicente-Serrano S.M., Begueria S., Lopez-Moreno J.I., Angulo M., El Kenawy A. 2010. "A global 0.5 gridded dataset (1901-2006) of a multiscalar drought index considering the joint effects of precipitation and temperature." Journal of Hydrometeorology 11(4), 1033-1043.

[114] Whatley, W., and R. Gillezeau. 2011a. "The Fundamental Impact of the Slave Trade on African Economies." In Economic Evolution and Revolution in Historical Time, ed. P. Rhode, J. Rosenbloom and D. Weiman. Stanford: Stanford University Press.

[115] Whatley, W., and R. Gillezeau. 2011b. "The Impact of the Transatlantic Slave Trade on Ethnic Stratification in Africa." American Economic Review, 101(3): 571-76.

[116] White, F. 1983. "The vegetation of Africa: a descriptive memoir to accompany the UNESCO/AETFAT/UNSO vegetation map of Africa." Natural resources research, 20:1–356.

[117] Wig, T. 2013. "Peace from the Past: Pre-colonial Political Institutions and Contemporary Ethnic Civil Wars in Africa." mimeo.

[118] Wrigley, N., Holt, T., Steel, D., and Tranmer, M. 1996. "Analysing, modelling and resolving the ecological fallacy." In P. Longley, & M. Batty (Eds.), Spatial analysis: Modelling in a GIS environment (pp. 23-40). Cambridge, UK: Geo-information International.

Appendix A: Variable Definitions (Cross-section of Grid Cells)

Conflict Prevalence: fraction of years with at least one conflict event in the grid cell during the period 1989-2010. Own calculation based on UCDP GED, version 1.5 (November 2012).

Conflict Onset: fraction of years with at least one conflict onset in the grid cell. An onset is the first confrontation event within a dyad. Own calculations based on UCDP GED, version 1.5 (November 2012).

State History: see main text for definition.

Area: Total land area of the grid cell (in square kilometers).

Distance Ocean: distance from the centroid of the grid cell to the nearest ocean (in hundred of kilometers).

Distance Major River: distance from the centroid of the grid cell to the nearest major river (in hundred of kilometers). Own calculation based on EMEA_rivers dataset from ArcGis Online.

River density: total density of rivers intersecting the grid cell. Own calculation based on EMEA_rivers dataset from ArcGis Online.

Capital Dummy: variable taking value 1 if the capital city of the country to which the grid cell was assigned is in the grid cell.

Distance Capital: distance from the centroid of the grid cell to the capital city of the country to which the grid cell was assigned (in kilometers).

Mean elevation: within-grid average elevation of the terrain (in meters above the sea level). Own calculation by taking within-grid average across original pixels in source dataset. Data comes from National Oceanic and Atmospheric Administration (NOAA) and U.S. National Geophysical Data Center, TerrainBase, release 1.0, Boulder, Colorado. Available at http://www.sage.wisc.edu/atlas/data.php?incdataset=Topography

Ruggedness: within-grid average ruggedness of the terrain across 30-by-30 arc-second cells. Ruggedness measure comes from Nunn and Puga (2012).

Natural Resources Dummy: variable taking value 1 if at least one natural resource site (either gems, diamond, gas or oil) is located in the grid cell. Location of the natural resource sites comes from PRIO's Diamond Resources and Petroleoum Datasets. Available at www.prio.no/Data/Geographical-and-Resources-Datasets

Number of Countries in Grid: total number of countries that are intersected by the grid cell. South Sudan is included in Sudan.

Cereal Suitability: within-grid average cereal suitability of the soil from Food and Agriculture Organization (FAO)'s Global Agro-Ecological Zones (GAEZ) database.

Tse-tse Fly Suitability: within-grid average predicted suitability for tse-tse flies from FAO/IAEA.

Malaria Ecology in early 20th century: within-grid average of average malaria ecology for the time period 1901-1905. Original data from Conley, McCord, and Sachs (2010).

Distance to Addis Ababa: shortest distance (in 100km) from centriod of the grid to Addis Ababa.

Ecological Diversity: Herfindahl index constructed from the shares of each grid's area that is occupied by each ecological type on White's (1983) vegetation map of Africa.

Ethnic Fractionalization in 1960: this variable is computed at the grid level i with the following formula: $F_i = 1 - \sum_{g=1}^{n} \alpha_{i,g}^2$. Where $\alpha_{i,g}$ is the fraction of total population in grid cell i that live in the portion of the historical homeland of group g that is intersected by the grid i. Population counts are from 1960 and comes from UNEP GRID Sioux Falls (Nelson 2004). The spatial distribution of ethnic groups is based on Murdock's (1959) map.

Ln of Population Density in 1700: log of 1 + population density in 1700 (people per squared kilometer). Population data comes from Goldewijk, Beusen, and Janssen (2010).

Pre-Colonial Variables: the following variables are 1960 population-weighted averages of traits of ethnic groups whose historical homelands intersect a given grid cell. The weights are the aforementioned $\alpha_{i,g}$ (see definition of Ethnic Fractionalization). Pre-colonial dependence variables denote subsistence income shares derived from hunting, fishing, pastoralism, and agricultural (variables v2, v3, v4, and v5 in the Ethnographic Atlas (1967) respectively). Pre-Colonial Settlement Pattern denotes the level of settlement complexity (variable v30 from Ethnograhic Atlas). A previous matching between ethnic territories (as displayed in Murdock (1959)'s map) and ethnic traits was needed for the computation of the population-weighted averages. Most of the ethnic traits come from the Ethnographic Atlas and were complemented with information in Atlas Vorkolonialer Gesellschaften (i.e: german for Atlas of Precolonial Societies). Matching was based on previous work by Fenske (2012), Nunn and Wantchekon (2011), and the Atlas Vorkolonialer Gesellschaften.

Slave Trade Prevalence: Original slave prevalence data comes at the ethnic level (Nunn and Wantchekon, 2011). The total number of slaves taken from a grid cell i, S_i, is imputed by doing: $S_i = \sum_e \theta_{i,e} S_e$ where e indexes ethnic group, $\theta_{i,e} = \frac{POP_{i,e}}{POP_e}$, and POP are 1960 population counts.

Historical Trade Routes: shortest distance (in 100km) from centroid of grid to historical trade routes recorded by Brince (1981)'s "An Historical Atlas of Islam".

Distance to Historical Conflict: shortest distance (in 100km) from centroid of grid to historical battle georeferenced in Besley and Reynal-Querol (2012).

Light Density: log of 0.01 + within-grid average luminosity. Following Michalopoulos and Papaioannou (2013), average luminosity is calculated for the time period 2007-2008.

Table A.1: Summary Statistics -Grid Cells-

Variable	Mean	Std. Dev.	Min	Max
Conflict Prevalence	0.19	0.23	0.00	1.00
Conflict Onset	0.27	0.44	0.00	1.00
State History 1000 - 1850 CE	0.16	0.23	0.00	1.00
Area (square km)	42367	12239	122	49231
Distance Ocean ('00 km)	6.18	4.75	0.00	16.84
Distance Major River ('00 km)	4.17	3.25	0.00	15.58
Capital Dummy	0.07	0.26	0.00	1.00
Distance Capital (km)	641.7	435.9	24.7	1912.5
River Density	5.72	3.966	0.00	28.04
Mean Elevation (m)	616.5	425.4	-4.6	2221.9
Ruggedness	66583	78892	960	540434
Natural Resources Dummy	0.41	0.49	0.00	1.00
Number of Countries in Grid	1.62	0.72	1.00	4.00
Cereal Suitability	0.28	0.17	0.00	0.71
TseTse Fly Suitability	0.34	0.40	0.00	1.00
Malaria Ecology early 20th Century	5.71	4.90	0.00	18.52
Ethnic Fractionalization in 1960	0.45	0.27	0.00	1.00
Population Density in 1700	3.19017	6.46	0.00	73.17
Pre-Colonial Hunting Dependence	0.96	0.91	0.00	4.00
Pre-Colonial Fishing Dependence	0.72	0.72	0.00	5.21
Pre-Colonial Pastoralism Dependence	3.15	2.39	0.00	9.00
Pre-Colonial Agricultural Dependence	4.46	2.12	0.00	8.41
Pre-Colonial Settlement Pattern	4.77	2.23	1.00	8.00
Slave Trade (log of Slave Exports/Area)	4.31	4.19	0.00	14.36
Distance to Historical Conflict ('00 km)	5.74	3.50	0.09	16.79
Ecological Diversity (Herfindhal Index)	0.32	0.23	0.00	0.75
Migratory Distance to Addis Ababa (weeks)	4.70	2.24	0.03	9.45

Note: Sample Size is 558 grid cells. See full details of the variable definitions in Appendix

Appendix B: List of Historical States

Table A.2. List of Historical States

	Date of	
	Establishment	Unestablishment
	(1)	(2)
Dongola (Makuria)	b 1000	1314
Alwa	b 1000	1500
Kanem Empire	b 1000	1387
Kingdom of Ghana	b 1000	1235
Pre-imperial Mali	b 1000	1230
Pre-imperial Songhai (Gao)	b 1000	1340
Siwahili city-states3	b 1000	1500
Mossi States	1100	a 1850
Ethiopia (Abyssinia)	1137	a 1850
Akan (Bonoman)	1200	1700
Imperial Mali	1200	1600
Buganda	1300	a 1850
Songhai Empire	1340	1590
Wollof Empire	1350	1549
Bornu-Kanem	1387	a 1850
Kingdom of Congo	1390	a 1850
Kingdom of Bamum	1398	a 1850
Yoruba (Oyo)	1400	a 1850
Nupe Kingdom	1400	a 1850
Darfur (Daju-Tunjur until c1600, then Sultanate of Darfur)	1400	a 1850
Hausa States	1400	1800
Adal Sultanate	1415	1577
Mwenemutapa (Kingdom of Mutapa)	1430	1760
Benin Empire	1440	a 1850
Kingdom of Butua (Butwa)	1450	1683
Kingdom of Rwanda	1500	a 1850
Bunyoro-Kitara	1500	a 1850
Kingdom of Merina	1500	a 1850
Maravi Kingdom	1500	1700
Kingdom of Idah (Igala)	1500	a 1850
Kwararafa	1500	1700

(continuation) Table A.2. List of Historical States

	Date of	
	Establishment	Unestablishment
	(1)	(2)
Nkore Kingdom (Ankole)	1500	a 1850
Kotoko Kingdom	1500	a 1850
Mandara Kingdom (Wandala)	1500	a 1850
Funj Sultanate	1504	1821
Kingdom of Bagirmi (Baguirmi Sultanate)	1522	a 1850
Kingdom of Ndongo (Angola)	1530	1670
Kingdom of Jolof (Senegal)	1550	a 1850
Kingdom of Menabe	1550	a 1850
Awsa (Aussa Sultanate since c1730)	1577	a 1850
Luba Empire	1585	a 1850
Air Sultanate	1591	a 1850
Dendi Kingdom	1591	a 1850
Teke (Anziku Kigdom)	1600	a 1850
Kingdom of Dahomey	1600	a 1850
Kuba Kingdom (Bushongo)	1625	a 1850
Wadai (Ouaddai Empire)	1635	a 1850
Lunda Empire	1665	a 1850
Kingdom of Burundi	1680	a 1850
Rozwi Empire	1684	1834
Aro trading confederacy	1690	a 1850
Kindom of Boina	1690	1808
Ashanti Empire	1700	a 1850
Kingdom of Orungu (Gabon)	1700	a 1850
Kong Empire	1710	a 1850
Bamana Empire (Segu)	1712	a 1850
Imamate of Futa Jallon	1725	a 1850
Lozi Kingdom	1750	a 1850
Mbailundu	1750	a 1850
Calabar (Akwa Akpa)	1750	a 1850
Kaarta (Baambara in Nioro)	1753	a 1850
Imamate of Futa Toro	1776	a 1850
Gibe States	1780	a 1850

(continuation) Table A.2. List of Historical States

	Date of	
	Establishment	Unestablishment
	(1)	(2)
Xhosa	1780	a 1850
Azande Kingdom	1800	a 1850
Swaziland (House of Dlamini)	1800	a 1850
Ovimbundu (4)	1800	a 1850
Yaka (4)	1800	a 1850
Borgu States	1800	a 1850
Sokoto Caliphate	1804	a1850
Zulu Kingdom	1816	a1850

Note: (1) b stands for before. (2) a stands for after. (3) Mogadishu, Mombasa, Gedi, Pate, Lamu, Malindi, Zanzibar, Kilwa, and Sofala. (4) approximate date

ONLINE APPENDIX. NOT INTENDED FOR PUBLICATION

Figure 5: Sensitivity of Estimates to Exclusion of Countries

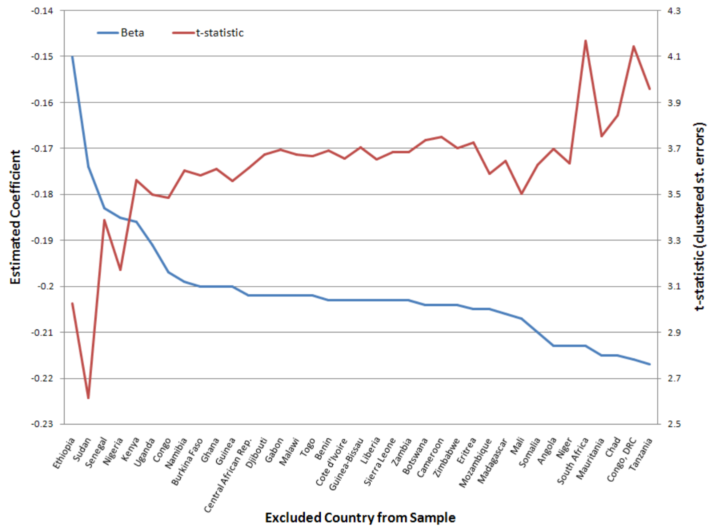
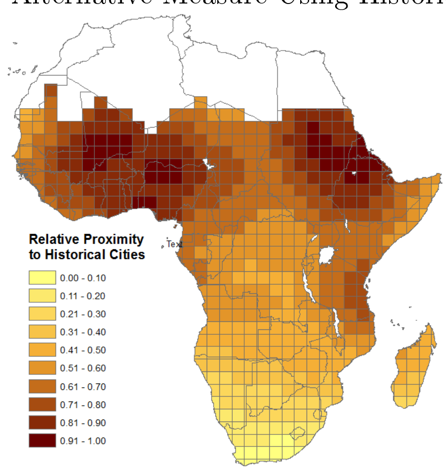


Figure 6: Alternative Measure Using Historical Cities



Construction of Weather-Induced Productivity Shock

I construct a weather-induced productivity shock to the agricultural sector in two main steps which I explain in detail below. In the first step I construct five crop-specific weather shocks. In the second step I aggregate these shocks into one indicator. As in Harari and

La Ferrara (2013), I construct my weather shocks using the Standardized Precipitation-Evapotranspiration Index (SPEI) developed by Vicente-Serrano et al (2010).

Drought index. The SPEI is a multiscalar drought index, which considers the joint effects of temperature and precipitation on droughts (Vicente-Serrano et al 2010). The SPEI is based on the climatic water balance equation which depends on total precipitation and the capacity of the soil to retain water (i.e: evapotranspiration). Formally; the water balance equation for a given month t:

$$D_t = Prec_t - PET_t,$$

where $Prec_t$ and PET_t are precipitation and potential evapotranspiration (both in mm), respectively. The PET need to be estimated using different climate inputs (such as temperature, cloud cover, and wind speeds) of which temperature is the most relevant. This water balance (deficit or superavit) can be aggregated at different scales k (i.e: number of months). Then, a given D_t^k is fitted to a Log-logistic distribution to obtain the $SPEI_t^k$ for a given month t and scale k over which water deficits/superavits accumulate. Since the SPEI is a standardized variable (with mean value of zero and standard deviation of 1), it can be compared over time and space (Vicente-Serrano et al, 2010) regardless of the election of k and t.[60] Low and negative values of the SPEI denote relative high water balance deficits (Droughts).

As discussed in Harari and La Ferrara (2013), the original SPEI series are based on CRU TS3.0 data which relies on gauge data. This poses a problem in the context of Sub-Saharan Africa where gauge data (in particular historical data) is scarce, then highly interpolated, and potentially endogenous to the existence of conflict. I therefore recalculate all the necessary SPEI series using more reliable climate data from ECMWF ERA-Interim dataset (Dee et al., 2011) and the NOAA 20th century reanalysis (Earth System Research Laboratory, NOAA, U.S. Department of Commerce, 2009), and the R package provided by the authors of the original index. In the appendix I provide the details for the calculation of all the SPEI series used to create my weather shock variable.

Crop-specific weather shocks. I focus on five staple crops: sorghum, millet, cassava, groundnuts, and maize. According to Schlenker and Lobell (2010), these crops are among the most relevant nutritional sources of calories, protein, and fat in Sub-Saharan Africa. They are also among the most relevant staple crops in terms of production (Depetris-Chauvin et al,

[60] In other words, the SPEI is measured in units of standard deviation from the historical average of the water balance (i.e: average over the period for which input climatic variables are available).

2012). In addition, these crops are highly dependent on rain. Although rice and wheat are also very relevant for this region, I excluded them from my analysis because they are highly irrigated (Schenkler and Lobell, 2010).[61] I then follow the main strategy in Harari and La Ferrara (2013). For each grid cell and each of the five aforementioned crops I identify the planting and harvesting months.[62] Therefore, I identify the length of the growing season (k) and the harvest month (t) for each crop in each grid-cell.[63] Hence, for a given year, $SPEI^{k_{c,i}}_{t_{c,i}}$ represents a weather shock specific to the crop c in grid i.

Weather-Induced Agricultural Productivity Shock. I create an aggregate weather-induced agricultural productivity shock for each grid i and year T by doing:

$$Negative\,Weather\,Shock_{i,T} = -\sum_{c}\theta_{c,i} \times SPEI^{k_{c,i}}_{t_{c,i},T}$$

where $k_{c,i}$ and $t_{c,i}$ are growing season length and harvest month for crop c in grid i, respectively. $\theta_{c,i}$ are the normalized harvest shares for each crop c in grid i.[64] There are two main departures from Harari and La Ferrara (2013) regarding the methodology implemented to create the shock. First, instead of focusing in the main crop (in term of harvested area) within a set of twenty six possible crops, I focus on the five most popular rainfed crops for Sub-Saharan Africa and use their relative importance (in terms of harvested area) to weight them in the aggregation within a grid cell. Second, Harari and La Ferrara (2013) define weather shock as the fraction of consecutive growing season months presenting an SPEI of 4 months of accumulation (scale 4) that is one standard deviation below the historical mean.They do mention that their results are robust to different time scales. I am less agnostic regarding the relevant scale (i.e: the number of months over which water deficits/superavits accumulate) and force it to be determined by the length of each growing season, instead.[65] My approach allows for a more parsimonious definition of shocks and makes possible the distinction between moderate and extreme drought events.[66]

[61] Since spatial variation in irrigation technologies is expected to be highly correlated with weather variation, including highly irrigated-crops would underestimate the statistical relationship between crop-specific weather shocks and conflict.

[62] All the information on crop calendars comes from Mirca 2000. See appendix for details.

[63] In some regions a crop may have two growing seasons within a year; I focus only in the primary season.

[64] The shares of areas harvested for each crop are calculated based on M3-Crops. See appendix for details.

[65] I thank Santiago Bergueria -one of the authors of the SPEI- for this suggestion.

[66] For instance, between an SPEI value of -1 and -3.

Additional Robustness Checks for Cross-Section Conflict-State History

Robustness to the choice of conflict measure (dataset, incidence, onset, and intensity). I next show that the main results are robust to the election of the georeferenced conflict dataset and the way conflict is coded. For column 1 of Table S.3, I construct the conflict measure using ACLED. Therefore, the dependent variable accounts for the fraction of years with at least one broadly defined conflict event in ACLED. In column 2 I only consider battle events recorded in ACLED. For column 3 I consider any violent event (i.e: battles and violence against civilians). In column 4 I focus on riots. For all the conflict indicators but riots I find the same pattern: a strong negative statistical relationship between conflict and state history (for the case of conflict the p-value for β is slighty above 0.1).

In column 5 I focus on a measure of conflict intensity. The dependent variable is the (log of) number of casualties due to conflict (best estimate in UCDP-GED). The point estimate for β reaffirms the hypothesized negative effect of state history on conflict. My conflict measure under the baseline specification represents the prevalence of conflict violence. It does not make distinction between onset and incidence of violence. That is, this measure does not distinguish a violent event that represents the onset of a new conflict within a dyad from an event that is the continuation of previous confrontations. In column 6 I consider a measure of prevalence of conflict onset (i.e: first confrontation within a dyad). I identify all conflict onsets in the period of analysis and code 1 a grid cell - year observation if at least one onset occurs. As a result, my conflict measure in column 6 represents the fraction of years with at least one conflict onset in the grid cell. Only 149 grid cells experienced at least one conflict onset (out of 417 different conflicts in the period 1989-2010). The point estimate suggests that the onset of conflict is strongly and negatively related to long history of statehood.

Heterogeneity across regions. I next explore whether the uncovered relationship between state history and contemporary conflict holds within Sub-Saharan Africa regions. I estimate the specification in column 3 of Table 3 for two regions, namely West-Central Africa and East-South Africa.[67] Results in column 1 and 2 of Table S.4 are in line with previous results. In column 3 I exclude Western Africa to show that this particular region is not driving the main results.

Excluding countries and influential observations. I sequentially estimate the specification in column 3 of Table 3 by excluding one country at a time. Figure 5 depicts thirty seven

[67]I follow UN to classify each country in one of the 5 UN regions (North, South, East, West, and Central). Only one country belongs to North (Sudan) and it is assigned to East. I group the original regions in only 2 regions to balance the number of observations in each sample.

different point estimates with their associated t-statistics; the excluded country is labeled in the x-axis. All the coefficients fall in the interval [-0.15, -0.22]. All coefficients but the one for the specification excluding Sudan are statistically significant at the 1 percent level (for the case of Sudan, the p-value is 0.013). There are two reasons for the somehow relative weaker result when excluding Sudan: (1) sample size drops by 10 percent increasing the standard errors (The statistical significances and standard errors of other covariates are also affected -results not shown-), and (2) Sudan presents some locations with very high values of the state history index; locations for which my state history may be underestimating their true long-run exposure to statehood.[68] Excluding those locations reduce the upward bias in the OLS estimate due to the measurement error from bounding the period of analysis above the year 1000 CE.[69] The same pattern arises when excluding another country with long history of states before 1000 CE (i.e: Ethiopia). Finally, the strong negative statistical association between state history and conflict persists when excluding influential observations. In this vein, I follow the standard practice of estimating β when excluding all the observations for which $\mid DFBETA_i \mid > 2/\sqrt{N}$, where N is the number of observations and $DFBETA_i$ is the difference between the estimate of β when the observation i is excluded and included (scaled by standard error calculated when this observation is excluded). The point estimate is -0.16 (statistically significant at the 1 percent level -results not shown-).

[68] The Nubian Kingdoms (northern Sudan) were founded several centuries before 1000 CE.

[69] I estimated additional specifications in which I excluded all the observations with some exposure to states during the period 1000-1100 CE. Consistently with the existence of measurement error from bounding the analysis above 1000 CE introducing an upward bias, the beta standardized coefficient slightly decreased about 10 percent (albeit they remained strongly statistically significant -results not shown-) when I excluded those observations.

Table S.1

	Dependent Variable					
	All Conflicts	Battles	Violence	Riots	Log of Casualties	Conflict Onset
	(1)	(2)	(3)	(4)	(5)	(6)
State History 1000 - 1850 CE	-0.093	-0.157**	-0.124*	0.011	-1.408***	-0.277***
	(0.061)	(0.060)	(0.063)	(0.030)	(0.469)	(0.089)
Dataset	ACLED	ACLED	ACLED	ACLED	UCDP-GED	UCDP-GED
Country Dummies	Y	Y	Y	Y	Y	Y
Geo-strategic Controls	Y	Y	Y	Y	Y	Y
Cereal Suitability	Y	Y	Y	Y	Y	Y
Disease Environment	Y	Y	Y	Y	Y	Y
Migratory Distance to Addis Ababa	Y	Y	Y	Y	Y	Y
Ecological Diversity	Y	Y	Y	Y	Y	Y

Robust standard errrors clustered at the country level in parentheses.*** p<0.01, ** p<0.05, * p<0.1.
The unit of observation is a grid cell. Conflict measures in columns 1,2,3,4, and 6 represent the fraction of years with at leat one conflict event in grid. ACLED data comprises the period 1997-2010. Conflict onset is defined as the first event within a dyad. The set of controls is described in Tables 2 and 3.

Table S.2

Dependent Variable: Conflict Prevalence 1989-2010 (fraction of years with at least one conflict event)			
	(1)	(2)	(3)
State History 1000 - 1850 CE	-0.133*	-0.223*	-0.171*
	(0.068)	(0.105)	(0.088)
Regions Included in Sample	West-Central	East-South	All but West
Country Dummies	Y	Y	Y
Geo-strategic Controls	Y	Y	Y
Cereal Suitability	Y	Y	Y
Disease Environment	Y	Y	Y
Migratory Distance to Addis Ababa	Y	Y	Y
Ecological Diversity	Y	Y	Y
Observations	274	284	425
R-squared	0.539	0.632	0.547

Robust standard errors clustered at the country level in parentheses.*** p<0.01, ** p<0.05, * p<0.1.
The unit of observation is a grid cell. The basic set of controls is described in Tables 2 and 3.

Table S.3. Historical Cities Used in Alternative Measure

City	Source	Date	City	Source	Date
Saint-Denis	Eggimann	1800	Agades	Chandler	1600-1700
Zimbabwe	Chandler	1300-1400	Zagha	Chandler	1200
Port Louis	Chandler	1800	Dongola	Chandler	1000-1500
Kilwa	Eggimann	1200-1700			
Loanda	Chandler, Eggimann	1600-1800	**Non-Sub-Saharan Cities**		
Sao Salvador	Chandler, Eggimann	1500	Qus	Chandler	1000-1400
Loango	Chandler, Eggimann	1700-1800	Asyut	Chandler, Eggimann	1200-1800
Calabar	Eggimann	1800	Giza	Eggimann	1800
Gbara	Chandler	1600-1800	Bulaq	Chandler	1000-1800
Benin	Chandler, Eggimann	1600-1800	Tanta	Chandler	1800
Whydah	Chandler, Eggimann	1800	Mahalla el Kubra	Eggimann	1800
Lagos	Eggimann	1800	Damanhour	Eggimann	1800
Allada	Chandler	1600	Alexandria	Chandler, Eggimann	1000-1800
Kumasi	Chandler, Eggimann	1700-1800	Damietta	Chandler, Eggimann	1200-1800
Abomey	Chandler, Eggimann	1700-1800	Marrakech	Chandler, Eggimann	1200-1800
Bonga	Chandler	1700-1800	Tripoli	Chandler	1500-1800
Ife	Eggimann	1800	Azammur	Chandler	1500
Oyo	Chandler, Eggimann	1400-1800	Meknes	Chandler, Eggimann	1300-1800
Freetown	Eggimann	1800	Rabat-Sale	Chandler	1000-1800
Zaria	Chandler, Eggimann	1600-1800	Taza	Chandler	1500
Massenya	Eggimann	1600-1800	Tlemcen	Eggimann	1300-1800
Kebbi	Chandler, Eggimann	1800	Kairwan	Chandler	1000-1800
Kano	Chandler, Eggimann	1200-1800	Oran	Chandler	1500-1800
Gondar	Chandler, Eggimann	1700-1800	Tanger	Eggimann	1800
Katsina	Chandler	1600-1800	Ceuta	Chandler	1200-1400
Segou	Eggimann	1700-1800	Tagaste	Chandler	1500-1600
Sennar	Chandler, Eggimann	1600-1800	Constantine	Eggimann	1400-1800
Jenne	Chandler	1300-1600	Algiers	Eggimann	1500-1800
Axum	Chandler, Eggimann	1000-1800	Bejaia	Eggimann	1200-1800
Soba	Chandler	1000-1300	Tunis	Chandler, Eggimann	1300-1800
Gao	Chandler	1000-1500	Annaba	Eggimann	1800
Timbuktu	Chandler, Eggimann	1000-1800			

Table S.4. State History and Attitudes Toward Local Policy Makers. Additional Controls

	Dependent Variable			
	Trust Local	Trust Leader	Leader Influence	Trust President
	(1)	(2)	(3)	(4)
State History 1000 - 1850 CE	0.304**	0.254*	0.387***	0.144
(Predominant Ethnic Group in District)	(0.129)	(0.132)	(0.137)	(0.137)
Average Slave Trade Prevalence in District	0.0243	0.0266	-0.0270	-0.0200
	(0.0546)	(0.0612)	(0.0564)	(0.0624)
Distance to Historical Trade Routes from District	1.10e-07	7.23e-07	6.32e-07	1.23e-07
	(4.43e-07)	(5.45e-07)	(5.74e-07)	(6.11e-07)
Temperature Volatility District (100 km Buffer)	0.00457	0.000605	0.00997	0.0244**
	(0.00983)	(0.0124)	(0.0139)	(0.0118)
Observations	22,516	22,528	22,115	22,533
R-squared	0.194	0.187	0.185	0.225

OLS Estimate. Robust standard errors clustered at the historical ethnic homeland level in parentheses. *** p<0.01, **p<0.05, * p<0.1. See Table 12 for definitions of dependent variables. The state history variable is calculated for the historical ethnichomeland (based on Murdock's map) in which the respondent currently lives. All specifications include respondent's ethnic group fixed effect, region fixed effect, individual-level controls, village-level controls, and district-level controls. Controls are described in Table 12. See main text for description of additional controls reported in this Table.

Table S.5 Trust and State History in Uganda. Additional Controls

Dependent Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trust Local	1.183*	0.823	0.659	1.348*	1.212**	1.187*	1.138*	1.192*	1.209*
	(0.615)	(0.553)	(0.556)	(0.724)	(0.613)	(0.622)	(0.598)	(0.611)	(0.619)
Trust Leader	4.058***	3.788***	3.602***	4.162***	3.984***	4.036***	3.735***	4.013***	4.250***
	(1.306)	(1.345)	(1.327)	(1.592)	(1.302)	(1.183)	(1.200)	(1.303)	(1.317)
Leader Influence	3.800**	2.704	2.292	4.566**	3.825**	3.773**	3.511*	3.670*	3.805**
	(1.896)	(1.673)	(1.598)	(2.096)	(1.893)	(1.723)	(1.818)	(1.899)	(1.934)
Additional Control	None	Acholi	Acholiland	Share Ganda	Ganda	Fraction.	Slave Trade	Trade Routes	Temp. Volatility
First-Stage	14.66	12.59	11.99	11.37	14.44	17.81	15.16	15.23	14.23

Note: This Table displays instrumental variable estimated coefficients for state history at the district level Coefficients in a given row correspond to regressions with the same dependent variable (listed at the left). Each column represents a different specification depending on the additional control (listed at the bottom). Robust standard errors clustered at the district level in parentheses. *** p<0.01, ** p<0.05, * p<0.1 The state history variable is calculated at the district level. All specifications include individual-level controls, region fixed effect, soil suitability for cereals and pasture, district level controls, public good provision dummies, and (log) distance to Kampala. Acholi indicates if respondent is Acholi. Acholiland indicates if respondent lives in Acholiland. Share Ganda is the fraction of Ganda People living in district and is calculated based on respondent's ethnicitydeclared in the Afrobarometer 4. Ganda indicates if respondent is Ganda. Ehtnic fractionalization is calculated at the district level based on ethnicitiesreported in the Afrobarometer 4. Slave Trade reportes Nunn's (2004) measure for the ethnicity of the respondent.
See main text for description of additional controls.