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Is Africa Different? Historical Conflict and State Development*

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Abstract

We show that the long-run consequences of historical warfare are different for Sub-Saharan Africa than for the rest of the Old World. We identify the locations of over 1,750 conflicts in Africa, Asia, and Europe from 1400 to 1799. We find that historical warfare predicts greater state capacity today across the Old World, including in Sub-Saharan Africa. There is no significant correlation between historical warfare and current civil conflicts across the rest of the Old World. However, this correlation is strong and positive in Sub-Saharan Africa. Thus, while a history of conflict predicts higher per capita GDP for the rest of the Old World, this positive consequence is overturned for Sub-Saharan Africa.

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1 Introduction

Warfare is a leading explanation for long-run state development.[1] To defend against external threats, historical states in Europe undertook administrative reforms that increased extractive capacity and enabled them to finance military efforts. Bates (2009, p. 56) argues that war-related state-building created the political foundations for long-run economic growth:

> In historical Europe, then, states emerged from war. Governments pursued policies that promoted the growth of the economy and the rise of parliamentary institutions not because they wanted to but because they had to, the better to secure resources with which to fight. In what was to become the advanced industrial world, as states developed, coercion therefore did not disappear... To a greater degree than before, [states] employed it to terminate feuds and secure property rights; to promote the creation of wealth rather than to plunder it; and to exchange policy concessions for public revenues from private citizens.

But is the logic of warfare and state-building universal? This paper tests the relationship between historical warfare and state development in comparative perspective, with a focus on Sub-Saharan Africa. To test this relationship, we assemble new data on the country locations of 1,758 conflicts in Africa, Asia, and Europe between 1400 and 1799. We regress state development on historical conflict, fixed effects by continent, and a baseline set of controls for initial demographic and geographic conditions.

Our results indicate that historical warfare has significant consequences for state development. First, we find that historical conflict predicts greater state capacity across the Old World, including in Sub-Saharan Africa. Second, we find that historical conflict predicts greater civil conflict, but only in Sub-Saharan Africa. While there is a positive correlation à la Bates (2009) between historical conflict and per capita GDP across the rest of the Old World, this correlation is negative for Sub-Saharan Africa. We conclude that Africa is in fact different: the negative consequences of historical conflict appear to outweigh the benefits in this region.

Our approach includes continental fixed effects and a baseline set of demographic and geographic controls. Still, it is possible that omitted variables (e.g., proximity to waterways) that affect both historical conflict and state development – and not historical conflict itself – explain our results. We use a variety of strategies to test this possibility.

[1] This argument has a long lineage. Tilly (1975, p. 42)'s famous statement is "War made the state, and the state made war."

The first strategy is to control for other observable country characteristics that we can plausibly argue are not themselves outcomes of historical warfare, including initial conditions (e.g., technological adoption), geographical features (e.g., malaria risk), colonial and legal origins, and artificial borders. We find that our results are robust to controls for other observable characteristics.

The second strategy is to test how likely it is that unobservable characteristics drive our results. For half of the reported cases, we find that including a "full" set of controls actually increases the size of our estimates. For the remaining cases, we find that, to explain away our results, the influence of any unobservable features would have to be on average around 18 times larger than the influence of the observed controls. This strategy provides further evidence that unobservable features cannot fully explain our estimates.

The third strategy is to test whether our results are robust to sample changes. For example, in one specification we include New World conflicts and countries. We find that our baseline sample does not drive our results.

Once we establish that the consequences of historical conflict for state development are robust, we test potential channels through which these consequences can be transmitted over time. First, we show evidence for intermediate linkages from historical conflict to state development outcomes around 1900. Second, we show suggestive evidence that social trust and education are two channels that mediate the relationship between historical conflict and state development outcomes in Sub-Saharan Africa.

Our paper offers new evidence about the historical origins of the modern nation-state. A large literature argues that military competition played a key role in state development (Tilly, 1975, 1992, Mann, 1986, Brewer, 1989, Downing, 1992, Besley and Persson, 2009, Gennaioli and Voth, 2014). However, this literature focuses on the European state-building experience.[2] It is not clear whether the logic of "war makes states" is universal (Herbst, 2000, Centeno, 2002). Our paper addresses this question by testing the legacy of historical warfare across world regions.

In a related manner, we show new evidence about the relationship between military conflict and political and economic development. A growing literature finds links between historical warfare and state capacity (Thies, 2005, Besley and Persson, 2009, Dincecco and Prado, 2012) or civil conflict (Besley and Reynal-Querol, 2014, Fearon and Laitin, 2014, Fenske and Kala, 2014a). However, this literature focuses on nineteenth- or twentieth-century conflicts or a single continent. We complement this literature by testing for the consequences of "pre-colonial" conflicts on state development outcomes across the Old

[2] An exception is Ferejohn and Rosenbluth (2010), who argue that warfare and state-building went hand-in-hand in medieval Japan.

World. Our study integrates state capacity and civil conflict into a more general analysis of state development.

Our findings have implications for debates about the role of the state in economic growth (Bates, 2006). Standard economic theory assumes that states can secure property rights, regulate markets, and resolve legal disputes. However, poor countries confront problems of weak state infrastructure (Migdal, 1988, Herbst, 2000, Bates, 2009). The success of Asian Tiger countries speaks to the development role that states can play (Wade, 1990, Kang, 2002). Our paper contributes to the literature that tests the long-run links between state capacity and economic performance (Bockstette et al., 2002, Gennaioli and Rainer, 2007, Besley and Persson, 2011, Dincecco and Prado, 2012, Michalopoulos and Papaioannou, 2013a, Acemoglu et al., 2014, Dincecco and Katz, 2014). We offer new results about the relationships between warfare, state development, and income growth.

Finally, our paper shows new evidence about the historical roots of civil conflict. Scholars link civil war with political and economic outcomes (Blattman and Miguel, 2010). However, this literature focuses on the post-World War II era (Miguel et al., 2004, Brückner and Ciccone, 2010). We examine the persistence of civil conflict over long time spans in the spirit of Besley and Reynal-Querol (2014) and Fearon and Laitin (2014). Our contribution is to test whether the persistence of pre-1800 conflicts is unique to Sub-Saharan Africa.

The paper proceeds as follows. Section 2 describes the historical background and conceptual framework. Section 3 discusses the data for historical conflict, state capacity, and civil conflict. Section 4 presents the empirical strategy and main results for historical conflict and state development. Section 5 performs robustness checks. Section 6 examines transmission channels. Section 7 concludes by assessing the legacy of conflict in Sub-Saharan Africa.

2 Historical Background and Conceptual Framework

2.1 Historical Background

Tilly (1992, tab. 3.1) estimates that major powers in Europe were at war 78 to 95 percent of all years from 1500 to 1800. To defend against survival threats from rivals, states made fiscal innovations that secured new and more regular sources of taxation (Tilly, 1975, 1992). The problem of royal moral hazard in warfare helps explain why European powers were nearly always at war (Cox, 2011). Rulers saw clear upsides from military victory, including royal glory, but faced few risks from defeat. Battle loss did not generally cost rulers their thrones until 1800, when Napoleon began to replace monarchs that were defeated (Hoff-

man, 2012). Rulers thus had incentives to launch frequent wars. Empirical tests support the "war makes states" argument. Mann (1986) finds that major increases in revenues in England from 1688 to 1815 correspond with the onset of wars. Gennaioli and Voth (2014) show evidence for a positive and significant relationship between interstate conflicts and state consolidation in Europe between 1500 and 1800.

It is not clear, however, whether the logic of "war makes states" holds for other parts of the world. For example, Herbst (2000, ch. 4) argues that there was less conflict in pre-colonial Africa. In the absence of survival threats, it was less likely that individuals would acquiesce to higher taxation.[3]

Pre-colonial Africa was endowed with a large land supply and a low population density relative to Europe or Asia (Thornton, 1999, Reid, 2012). Herbst (2000, tab. 1.1) estimates that population density in 1500 was 14 people/sq km in Europe, 46 people/sq km in Japan, and 13 people/sq km in China, but only 2 people/sq km in Sub-Saharan Africa. In this land-rich but labor-scarce environment, a primary goal of warfare was to capture people rather than territory. Thornton (1999, pp. 16) writes: "Indeed, ownership of slaves in Africa was virtually equivalent to owning land in Western Europe or China."

Political geography is reflected in the most common type of warfare in pre-colonial Africa, called the "raiding" war. Unlike the "campaigning" war, characterized by large-scale operations and set-piece battles, the raiding war was characterized by repeat assaults on the enemy (Reid, 2012, pp. 4-5). This type of warfare did not conclude with "final surrender", creating the possibility for open-ended conflict (Klein, 1972).

Differences in political geography also have implications for the role of warfare in state-building. There were in fact states in pre-colonial Africa (Smith, 1989, Herbst, 2000). Herbst (2000, p. 37) writes: "African states did broadcast authority, did have firm notions of what consolidation of power meant, and did develop conventions for relations between states." Due to land abundance, however, Africans could often just migrate to new territory in response to conflict rather than fight (Herbst, 2000, pp. 39-41). This lack of well-defined state borders may have led to different consequences for long-run state development in Africa.

Another factor that distinguishes state-building in Africa is the relationship between pre-colonial warfare and the transatlantic slave trade. Some scholars argue that the slave trade was an outgrowth of pre-colonial conflict over people (Curtin, 1975, Eltis, 1987). Other argue that the combination of the New World demand for slaves and a new gun-

[3]Bates (2009, pp. 64-6) argues that a lack of external threats, along with foreign aid, explains why inclusive political institutions and fiscal structures remain weak in post-1945 Africa. Boone (2014, ch. 2) argues that land-related conflicts in contemporary Africa can actually be an outcome of state-building efforts.

powder technology – known as the gun-slave cycle – increased raiding wars and slave exports (Rodney, 1972, Inikori, 1982, Law, 1991, Whatley, 2012). Slave-related conflicts may have exacerbated ethnic divisions and prevented the development of inclusive political institutions, laying the groundwork for future conflicts and poor economic outcomes (Easterly and Levine, 1997, Acemoglu et al., 2002).

The "Scramble for Africa" by European colonizers begin in the 1880s and lasted through the start of World War I. The territorial borders that colonial powers established, which did not correspond with pre-colonial borders, may have influenced state development outcomes (Asiwaju, 1985, Wesseling, 1996). Alesina et al. (2011) show evidence that artificial borders are negatively correlated with per capita income. Michalopoulos and Papaioannou (2013b) find that civil conflict in Africa is greater in areas where ethnic groups were partitioned by colonizers.

2.2 Conceptual Framework

There is now a large literature that examines the historical roots of current political and economic outcomes (Nunn, 2014). Still, the natural question is how wars that took place centuries ago could influence state development today. To address this question, we put forth a simple framework that builds on Besley and Reynal-Querol (2014, fig. 1). The following schematic summarizes our framework.

Historical warfare
$\Downarrow$
Intermediate state development outcomes
$\Downarrow$
Current state development outcomes
$\Downarrow$
Current economic performance

As described in the previous sub-section, initial demographic and geographic conditions, as well as economic, political, and social conditions, can influence the nature and likelihood of historical warfare itself.

Historical warfare can then influence subsequent political and economic outcomes, both at an intermediate stage and today. Scholars describe a ratchet effect whereby greater wartime tax revenues do not fall to pre-war levels once conflict ends (Herbst, 2000, Thies, 2007, Dincecco and Prado, 2012). Expanding and regularizing tax systems involves fixed

costs. Once states have established stronger fiscal institutions, the marginal costs of sustaining them can be low. Furthermore, rulers can use greater tax revenues toward policies that consolidate their power. Dincecco and Prado (2012) show evidence that state capacity today is greater for countries that fought more wars from 1816 to 1913.[4]

The logic of "war makes states" may eventually create conditions for lasting peace (Tilly, 1992). According to this argument, modern states first became strong enough to deter civil conflict. They then became powerful enough – in military, political, and economical terms – to prevent interstate conflict. If this argument is true, then we should observe the "anti-persistence" of conflict over the long run (Fearon and Laitin, 2014).

There are several potential channels, however, through which conflict may in fact persist. Social groups with a long history of fighting can be less trustful of each other (Besley and Reynal-Querol, 2014). This lack of trust can translate into greater civil conflict, particularly where violence was used to produce slaves for export (Nunn, 2008, Nunn and Wantchekon, 2011, Fenske and Kala, 2014b). In regions that became dependent on slave exports, disruptions to the slave trade produced short-run and long-lasting increases in intra-African conflict (Fenske and Kala, 2014a). The destructive effects of conflict can also lead to poverty and subsequent cycles of violence (Besley and Reynal-Querol, 2014). Furthermore, conflict experience can endow ethnic groups with "martial institutions" which are transmitted through generations and make repeat conflict more likely (Fearon and Laitin, 2014). Bates (2008, pp. 85-6) and Reid (2012, pp. 9-17) claim that pre-colonial warfare in Africa has significant consequences for civil disputes today. Besley and Reynal-Querol (2014) show econometric evidence to this effect. Similarly, Fearon and Laitin (2014) show evidence that post-1945 civil conflict in Africa is greater in places that saw nineteenth-century colonial wars.

We may think that capable states deliver political stability (Besley and Persson, 2011, ch. 4). However, political stability and state capacity do not always go hand-in-hand. Acemoglu et al. (2010) argue that high fiscal capacity and civil conflict can coexist. When fiscal capacity is high, the military will gain greater economic power if it undertakes a coup. To reduce the likelihood of coup, the civilian government has an incentive to limit military strength, which reduces the state's monopoly on physical force and makes it more likely that civil war will persist.

[4]Depetris-Chauvin (2011) tests the relationship between pre-colonial statehood and current conflict in Africa. Heldring (2014) argues that greater state capacity led to more conflict in 1990s Rwanda. Gennaioli and Rainer (2007) and Michalopoulos and Papaioannou (2013a) document positive relationships between pre-colonial political centralization and current political and economic outcomes in Africa. Bates (1983) and Fenske (2014) examines the origins of pre-colonial states themselves.

3 Data

3.1 Historical Conflict

Our historical conflict data are from Brecke (1999). This database provides a comprehensive list of violent conflicts worldwide from 1400 to the present. To compile this database, Brecke uses roughly 80 secondary sources, including dictionaries and encyclopedias, scholarly books and compilations, chronologies and timelines, and non-English language works (in Chinese, Japanese, and Russian). For Sub-Saharan Africa, Brecke's sources include Freeman-Grenville (1973), Ajaye and Crowder (1985), and McEvedy (1995).

Brecke's definition for violent conflict follows Cioffi-Revilla (1996).[5] To be counted as a violent conflict in Brecke's database, there must be at least 32 conflict-related deaths, which corresponds to a magnitude of 1.5 or higher on Richardson's (1960) base-10 log conflict scale. As a review of Brecke's source materials will attest, external conflicts (i.e., conflicts that take place between or among states, broadly defined) form the primary basis of his database.

For each conflict, Brecke lists belligerents and years, along with supporting information. For example, one entry reads "Akramu-Accra (Ghana), 1660." We use this information to identify the modern country in which each conflict took place (in this example, Ghana). To improve accuracy, we double-check the history of each conflict with the secondary literature. Another entry reads "England-France, 1475." Our reading of this literature indicates that this entry refers to Edward IV's invasion of Calais. We thereby code this conflict for France. We focus on historical warfare in the Old World: conflicts on the continents of Africa, Asia, and Europe. Our regression analysis will include the Americas as a robustness check.

Scholars have made wide use of Brecke's database. Iyigun (2008) tests the effects of Ottoman military engagements on Catholic-Protestant conflict in European history. Pinker (2011)'s study of violence in human history relies on this database. Besley and Reynal-Querol (2014) test the historical legacy of conflict in Africa. Fearon and Laitin (2014) study conflict persistence from 1816 onward.

The Brecke data may not record all historical conflicts. Still, the scale and scope of Brecke's database makes it likely that it includes the most important conflicts as documented by historians. A related concern is that the quality of historical data may differ

[5]This definition is: "An occurrence of purposive and lethal violence among 2+ social groups pursuing conflicting political goals that results in fatalities, with at least one belligerent group organized under the command of authoritative leadership. The state does not have to be an actor. Data can include massacres of unarmed civilians or territorial conflicts between warlords."

across world regions. For example, the literature on historical warfare in Sub-Saharan Africa is small. Furthermore, the nature of African warfare – raiding wars versus European-style campaigning wars – may make it less amenable to documentation. For these reasons, Brecke's database may not adequately record all African conflicts. To help account for differences in data quality across world regions, our regression analysis will always include continental fixed effects.

Large conflicts may lead to greater state capacity reforms than small conflicts. To measure conflict intensity, one could in theory use casualty totals (Dincecco and Prado, 2012), but these data are only available for about one-third of Brecke's conflicts. A second possibility is to incorporate conflict durations in days or months. However, precise start and end dates are not available for over 70 percent of the Brecke data.

Our main historical conflict variable computes the share of years from 1400 to 1799 in which a country experienced conflict on its soil. This measure of historical conflict is succinct, feasible, and widely comparable across countries. We focus on the pre-1800 period because we want to test for the legacy of "pre-colonial" conflicts. Namely, we want to exclude nineteenth-century colonial wars related to the "Scramble for Africa" by European colonizers. We compute two alternative historical conflict variables. The first computes the number of distinct conflicts that a country experienced on its soil between 1400 to 1799. The second computes the share of years over this period in which a country experienced the *start* of conflict on its soil.

Table 1 summarizes the historical conflict data.[6] 1,758 recorded conflicts took place from 1400 to 1799, for an average of 440 per century. Consistent with the state formation literature as described before, Europe saw the most warfare over this period (810 conflicts), followed by Asia (523), Sub-Saharan Africa (230), North Africa (98), and the Americas (97). Figure 1 maps these conflicts.[7]

3.2 State Capacity

Herbst (2000, p. 113) writes: "There is no better measure of a state's reach than its ability to collect taxes." In accordance with this sentiment and the general thrust of the state formation literature, we define state capacity in terms of the state's ability to raise tax revenues. We take our main variable, the share of direct (i.e., income, social security, payroll, and

[6]These statistics use the conflict start variable to avoid double-counting, since some conflicts spill over from one century into the next.

[7]Conflict locations sometimes overlap. For example, of the 230 historical conflicts in Sub-Saharan Africa, we identify 77 unique locations.

property) taxes in total taxes, from Dincecco and Prado (2012). These data are averaged over the 1990s.

There are several reasons why the direct tax share is a particularly meaningful measure of state capacity. Lindert (2004, ch. 2) and Besley and Persson (2013) note a striking similarity between the historical evolution of fiscal systems and current differences in fiscal systems between rich and poor countries. As states developed stronger fiscal systems over time, there was a shift from indirect taxes such as trade taxes to direct taxes such as income taxes. The collection of direct taxes requires greater administrative capacity to effectively monitor and enforce tax payments than does the collection of indirect taxes such as customs taxes at ports. Furthermore, rich countries today depend to a greater extent on direct taxes than do poor countries, which rely heavily on trade taxes (Besley and Persson, 2013, fig. 7). Herbst (2000, ch. 4) notes that the reliance on trade taxes by African governments has generated inadequate revenues both historically and today. It is thus difficult for African states to provide basic public goods and services such as security, school books, and roads that promote development.

Figure 2 plots historical conflicts against direct tax shares for our sample of 70 Old World countries. The left panel focuses on Asia, Europe, and North Africa (i.e., the "rest" of the Old World), while the right panel focuses on Sub-Saharan Africa. This figure suggests that the logic of "war makes states" is general; historical warfare is positively correlated with state capacity today, even in Sub-Saharan Africa.

We use three alternative state capacity variables from Besley and Persson (2011, ch. 2). These data are taken from 1999. The first alternative is the share of income taxes in total taxes. This measure is similar in spirit to our main variable. The second is income tax bias, computed as the difference between the income tax share and the trade tax share. This variable represents another way to measure state capacity. The third is government size, measured as the ratio of total tax revenues to GDP.

3.3 Civil Conflict

We take our civil conflict variables from Besley and Persson (2011, ch. 4). Our main variable computes the share of years from 1950 to 2000 in which a country experienced a civil war, as counted for each year in which conflict deaths of the government and/or its domestic adversary exceed 1,000. A set of two alternative variables incorporates purges, as defined by at least one murder of a political opponent by the standing government in the span of one year. Combining these data sources, Besley and Persson generate two variables for political violence: an ordered variable that equals 0 for years of peace, 1 for

years of purges without civil war, and 2 for years of both purges and civil wars; and a dummy variable that equals 1 if the ordered variable equals 1 or 2. We use these variables to compute average scores for political violence between 1945 and 2000.

Figure 3 depicts the relationship between historical conflicts and modern civil wars for Asia, Europe, and North Africa (left panel) and Sub-Saharan Africa (right panel). While there is no clear correlation between historical warfare and civil conflicts today in the rest of the Old World, there is a strong positive correlation for Sub-Saharan Africa. Unlike for state capacity, this figure suggests that Africa is in fact different. Our regression analysis will test how robust these result are.

4 Empirical Strategy and Main Results

4.1 Empirical Strategy

We use OLS to estimate:

$$y_i = \alpha + \beta Conflict_i + \delta Conflict_i \times Africa + x_i'\gamma + \mu_j + \epsilon_i, \quad (1)$$

where i indexes countries. y_i denotes one of our four measures of state capacity or one of our three measures of civil conflict. $Conflict_i$ is one of our three measures of historical conflict. $Conflict_i \times Africa$ interacts historical conflict with a dummy variable for Sub-Saharan Africa. x_i is vector of baseline controls to be described ahead. μ_j are a full set of fixed effects by continent (Asia, Europe, North Africa, Sub-Saharan Africa). ϵ_i are robust standard errors. Our coefficients of interest are β, the estimated relationship between historical warfare and current state capacity or civil conflict for the rest of the Old World (Asia, Europe, and North Africa), and δ, the estimated relationship between historical warfare and current state capacity or civil conflict for Sub-Saharan Africa *relative* to the rest of the Old World.

The vector x_i denotes a set of baseline controls that we include in all regressions. We follow Ashraf and Galor (2011) in selecting baseline controls that are unlikely to be shaped by developments after 1500. To account for initial demographic conditions, we include log population density in 1500 and the log timing of the Neolithic Revolution, defined to have taken place when a majority of the country's population began to practice sedentary agriculture as the primary mode of subsistence. To account for country-level geographic features, we always include log land suitability for agriculture, log absolute latitude, and total land area. Table A1 displays the descriptive statistics for the regression variables.

4.2 Main Results

Table 2 presents our estimates for the relationship between historical conflicts and state capacity. As described, all regressions include a full set of continent dummies and the set of baseline controls. Column 1 shows the result for our main state capacity variable, the direct tax share. The estimated coefficients for the rest of the Old World and for Sub-Saharan Africa are both positive and statistically significant.

Columns 2 to 4 use our alternative state capacity variables: the income tax share, income tax bias, and government size (i.e., the tax-to-GDP ratio). The results for the income tax share (column 2) and income tax bias (column 3) are similar to column 1. There is a positive and significant correlation between historical conflict and state capacity for both the rest of the Old World and for Sub-Saharan Africa. The result for government size (column 4) is also similar, even if the coefficient for $Conflict_i$ loses significance in this specification. Furthermore, now the coefficient for $Conflict_i \times Africa$ does not significantly differ from the rest of the Old World. Taken together, these results suggest that the main consequence of historical warfare is for state capacity, rather than for overall state size.[8] Columns 5 and 6 repeat the column 1 specification for our alternative historical conflict variables: the number of conflicts between 1400 to 1799, and the share of years in which a country experienced the start of conflict. The results are again positive and significant.

Table 3 presents sister estimates for the relationship between historical warfare and civil conflicts. Column 1 uses our main variable, the share of years of civil war between 1950 and 2000, and columns 2 and 3 use our alternative variables for average political violence (ordered and dummy). Columns 4 and 5 repeat the column 1 specification for the alternative historical conflict variables as described before. The results are robust across all specifications. The estimated coefficients for Sub-Saharan Africa are always positive and statistically significant, while the estimated coefficients for the rest of the Old World are not (with the exception of column 4, in which the point estimate for $Conflict_i$ is *negative* and significant).[9]

Overall, the results in Tables 2 and 3 support the argument that historical conflict has significant consequences for state development. Our analysis suggests that the logic of "war makes states" holds across the Old World, including in Sub-Saharan Africa. We find

[8]For robustness, we use the Brookings Institution state weakness score (Rice and Patrick, 2008) as a non-fiscal measure of state capacity and re-estimate the column 1 specification. The coefficient for $Conflict_i$ is positive and significant. The coefficient for $Conflict_i \times Africa$ is not significantly different from the rest of the Old World.

[9]For robustness, we estimate the specification in column 1 of Table 3 for a similar sample as our main state capacity variable (the civil conflict and state capacity variables overlap for 67 out of 70 total observations). The results are qualitatively identical to the reported results; the point estimate for $Conflict_i \times Africa$ is larger (3.768).

a positive and significant correlation between historical conflict and current state capacity. The estimates from column 1 of Table 2 indicate that a one standard deviation increase in the share of years of historical conflict for a country in the rest of the Old World is associated with a 0.436 standard deviation increase in the share of tax revenues that it gathers from direct taxes. For Sub-Saharan Africa, a one standard deviation increase in the share of years of historical conflict translates into a 1.502 standard deviation increase in the direct tax share.

By contrast, the positive and significant correlation between historical conflict and civil conflict today that we find for Sub-Saharan Africa, and for this region only, suggests that Africa is different. Our estimate from column 1 of Table 3 indicates that a one standard deviation increase in the share of years of historical conflict is associated with a 0.444 standard deviation increase in post-1950 civil conflict in Sub-Saharan Africa. For the rest of the Old World, our results show evidence for the "anti-persistence" of conflict over the long run (Fearon and Laitin, 2014).

5 Robustness

The significant correlations that we document in the previous section are consistent with the argument that historical warfare is linked with greater state capacity throughout the Old World, including in Sub-Saharan Africa. We also document a feature of historical warfare that is particular to Sub-Saharan Africa: conflict persistence. However, these correlations could be explained by omitted variables that influence both historical conflict and state development outcomes today. For example, if other geographical features such as terrain ruggedness influence patterns of past warfare, and if such features have implications for current state capacity and/or civil conflict, then they could generate a positive relationship between historical conflict and current outcomes.

In this section, we use a variety of strategies to test the robustness of our results. First, we control for a range of observable country characteristics such as terrain ruggedness that may be correlated with historical warfare and state development outcomes today. Second, we test how likely it is that our results are driven by unobservable country features. Third, we test whether our estimates are robust to sample changes.

5.1 Further Controls

Table 4 presents our estimates for historical warfare and state capacity with additional controls. We start with a parsimonious specification. To show that our main results do

not depend on the set of baseline controls, column 1 excludes them from the benchmark specification (we retain the full set of continental fixed effects). The coefficients for β and δ are similar as before.

It could be that the places in Africa in which there was greater pre-colonial conflict were also the places under colonial rule by Europeans. Thus, colonial rule, rather than pre-colonial conflict, could be responsible for state capacity outcomes today. Column 2 adds colonial dummies for British, French, Portuguese, Spanish, and other European colonizers according to Nunn and Puga (2012) to the benchmark specification that includes a full set of continent dummies and the set of baseline controls.[10] The results for both the rest of the Old World and for Sub-Saharan Africa closely resemble the benchmark case (i.e., column 1 of Table 2).

Column 3 repeats this specification for a key feature related to colonial rule in Sub-Saharan Africa: the creation of artificial borders. We control for this feature according to Alesina et al. (2011), who measure the straightness of a country's land borders. The idea is that borders that resemble straight lines are likely to be artificially drawn, while borders that resemble uneven lines are likely to correspond with natural features (e.g., rivers). The results remain robust to this control.

Column 4 repeats this specification for legal origins, another feature related to colonial rule. We include dummy variables for British and French legal origins according to Ashraf and Galor (2011). The results are again similar.

Our baseline set of controls includes two measures of initial conditions: log population density in 1500 and the timing of the Neolithic Revolution. It may be the case that initial technology influenced both the likelihood of historical wars and the development of state capacity. To account for initial technological conditions, we include a measure of technological adoption in 1500 from Comin et al. (2010). Gennaioli and Rainer (2007) and Michalopoulos and Papaioannou (2013a) show evidence for Africa that links pre-colonial state centralization with better public goods provision and economic performance today. To account for initial state strength, we include a measure of state antiquity in 1500 from Bockstette et al. (2002). Column 5 shows the results with these additional controls. The coefficient estimates remain robust, even though the number of observations falls from 70 to 49 due to a lack of available data.

Column 6 repeats this analysis for additional geographic controls beyond those included in our baseline set (i.e., land suitability for agriculture, absolute latitude, and total

[10] Colonial rule can be understood as "direct" (e.g., French rule) or "indirect" (e.g., British rule). The colonizer dummies help account for any differences in ruling strategies. Mamdani (1996) argues that direct and indirect forms of rule in Africa were at base very similar.

land area). Specifically, we add controls for the share of a country's population at risk for malaria, the population share that lives in tropical zones, the average distance to the nearest waterway (sea-navigable river or coast), the average distance to the nearest coast, terrain ruggedness, the share of land that is desert, and a proxy for natural resource wealth (i.e., gem diamond extraction) according to Ashraf and Galor (2011) and Nunn and Puga (2012). The results continue to hold. The point estimate for $Conflict_i \times Africa$ falls by nearly one-half, but is still significant.[11]

Finally, column 7 includes all of the controls described in columns 2 to 6, with the exception of the variables for other initial conditions, which we exclude because the number of observations is small. The results resemble the previous specification in terms of magnitude and significance.

Table 5 repeats the robustness checks with additional controls for historical warfare and civil conflicts. The coefficient values for Sub-Saharan Africa are always positive and significant in columns 1 through 7, with point estimates similar in magnitude to the benchmark case (i.e., column 1 of Table 3). As for the main results, the coefficients for the rest of the world are never significant.

While the addition of new controls cannot rule out omitted variable concerns, the results are robust. This exercise reinforces our key results, namely that there is a positive and significant relationship between historical warfare and state capacity throughout the Old World, including in Sub-Saharan Africa, and that historical conflicts predict current civil wars, but only in Sub-Saharan Africa.

5.2 Potential Bias from Unobservables

Even though we control for a wide variety of potential omitted variables, the results in Tables 4 and 5 could still be biased by unobservable features that influence both historical warfare and state development outcomes. To address this concern, we compute a measure based on Altonji et al. (2005), Bellows and Miguel (2009), and Nunn and Wantchekon (2011) that estimates how much greater the influence of any unobservable features would have to be, relative to the observed controls, to fully explain away the previous set of results.

Specifically, this measure computes the ratio $\hat{\beta}^f / (\hat{\beta}^r - \hat{\beta}^f)$ according to the coefficients

[11] For robustness, we add two other geographic controls. Iliffe (2007, ch. 2) suggests that border zones between forests and savannas in Africa could be prone to more conflict. To proxy for ecological diversity, we compute one minus the Herfindahl index of the different ecological zones in each country according to GAEZ (Fischer et al., 2000, plate 55). To further control for natural resource wealth, we include average oil production between 1980-2012 according to the U.S. EIA (2013). The results are unchanged in both cases.

for our variables of interest ($Conflict_i$ and $Conflict_i \times Africa$) for two regressions, the first of which includes the covariates for a "restricted" set of controls (which we label $\hat{\beta}^r$), and the second of which includes the covariates for a "full" set of controls (which we label $\hat{\beta}^f$). The logic is that, the greater the ratio, the larger that selection on unobservable features must be to fully explain away our estimates.

We test two sets of restricted covariates. The first includes no controls, and the second our baseline set of controls. We test five sets of full covariates: (1) the baseline set of controls, (2) colonial origins, (3) legal origins, (4) other initial conditions, and (5) additional geographic controls. These sets of covariates are described in the previous section. We test (1) for the specification in which the restricted set of covariates includes no controls, and (2) to (5) for the specification in which the restricted set includes the baseline set of controls. In total, there are five combinations of restricted and full covariates for which we can calculate ratios.

Table 6 presents the ratios for our main state capacity and conflict variables for $Conflict_i$ (Panel A) and $Conflict_i \times Africa$ (Panel B). Out of the 20 reported ratios, only one is less than one (i.e., for $Conflict_i$ when the dependent variable is the civil war share; this coefficient is generally not significant in Tables 3 and 5). 10 of the 20 ratios are negative, which indicates that the coefficients of interest, $Conflict_i$ and $Conflict_i \times Africa$, actually increase in magnitude once the full set of covariates is included. The remaining 9 ratios range in value from 1.10 to 34.69, with the median equal to 20.92 when the dependent variable is the direct war share and 17.87 when the dependent variable is the civil war share. The latter set of results suggests that, to fully explain away the positive correlation between historical warfare and state capacity (civil conflict) today, the influence of unobservable features would have to be on average 19 times greater (18 times greater) than observable features. We view this exercise as further evidence that unobservable features cannot fully explain our estimates.

5.3 Alternative Samples

As a final set of robustness checks, we re-run our main specifications for a variety of different samples.

The "Scramble for Africa" by European colonizers did not begin until the late nineteenth century. Still, white settler communities in Africa (e.g., in South Africa) began in the eighteenth century. To account for the potential role of eighteenth-century colonialism in Africa, columns 1 and 2 of Table 7 exclude eighteenth-century wars and recompute our main historical conflict variable for 1400 to 1700. The key estimates for state capacity

(column 1) and civil conflict (column 2) are similar in magnitude and significance as the benchmark case. As an alternative strategy, columns 3 and 4 exclude South Africa, the most prominent eighteenth-century white settler community. The results are also robust to this sample change.

Figures 2 and 3 suggest that Russia and China saw much greater conflict between 1400 and 1799 than other sample countries.[12] Columns 5 and 6 exclude Russia and China from the main specifications. The results are again robust. The point estimate for $Conflict_i \times Africa$ falls for civil conflicts (column 6), but remains significant.[13]

Finally, columns 7 and 8 add in conflicts and countries in the Americas. The point estimate for the coefficient for $Conflict_i$ falls by nearly one-half for state capacity (column 7), but remains significant, which suggests that the logic of "war makes states" may also apply to the New World. This result complements Thies (2005), who finds a positive relationship between interstate rivalry and state capacity in twentieth-century Latin America. The other key estimates continue to hold.[14]

Overall, this set of robustness checks provides evidence that our main results do not depend on any particular sample.

6 Channels

The evidence that we have shown so far supports our argument that historical conflict significantly influences current state development. More historical warfare is correlated with greater state capacity throughout the Old World, including in Sub-Saharan Africa. However, in Sub-Saharan Africa – and only in this region – more historical warfare is also correlated with greater civil conflicts.

In this section, we explore potential channels through which the consequences of historical conflict are transmitted over time. First, we show evidence for intermediate linkages between historical conflict and state development. Second, we test for potential trans-

[12]Direct tax share data are not available for China. However, data for China for the three alternative state capacity variables as tested in Table 2 are available.

[13]Two other outliers are Zimbabwe (Figure 2) and Angola (Figure 3). Excluding Zimbabwe and re-running the state capacity regression in column 1 yields qualitatively identical results; the point estimate for $Conflict_i \times Africa$ is larger than before (6.071). The results are also qualitatively identical if we exclude Angola and re-run the the civil conflict regression in column 2; however, the point estimate for $Conflict_i \times Africa$ falls to 1.205. Regardless, our results remain in line with other scholars (Besley and Reynal-Querol, 2014, Fearon and Laitin, 2014) who find evidence for conflict persistence in Africa.

[14]The results for $Conflict_i$ and for $Conflict_i \times Africa$ are similar in magnitude and significance if we exclude countries in Europe and re-run our main specifications for state capacity and civil conflict. The main difference is that the coefficient value for $Conflict_i$, while still positive, is no longer significant (the point estimate is 0.347). However, we lose over 40 observations in this specification.

mission channels.

6.1 Intermediate Linkages

For the intermediate linkage for state capacity, we use cumulative railway kilometers built by 1910, just prior to the start of World War I, according to Mitchell (2007a,b,c). We view this measure as a proxy for the "infrastructural power" of the state (Mann, 1986). This variable has the key advantage over fiscal variables of being widely available across sample countries. For the intermediate linkage for civil conflict, we use the share of years from 1850 to 1899 in which Sub-Saharan African countries experienced intra-African conflict (i.e., conflict in which all belligerents were African) according to Fenske and Kala (2014a). We focus on Sub-Saharan Africa for this linkage because our previous analysis does not detect any significant relationship between historical and current civil conflicts outside of this region.

Figure 4 plots historical conflict against log railway kilometers in 1910 for the rest of the Old World (left panel) and Sub-Saharan Africa (right panel). There is a strong positive relationship between historical warfare and state capacity at the start of the twentieth century for Asia, Europe, and North Africa. While this relationship is notably weaker for Sub-Saharan Africa, it remains positive.

Similarly, Figure 5 plots the relationship between historical (i.e., pre-1800) conflict and intra-African conflicts over the second half of the nineteenth century. There is a strong positive correlation between these variables.

Table 8 presents OLS estimates for the intermediate linkages. Columns 1 and 2 show the results for the intermediate state capacity linkage, log railway kilometers in 1910. The estimated coefficients are positive and significant for the rest of the Old World, whether or not we include colonial dummies. However, there is no systematic relationship for Sub-Saharan Africa, which may suggest that European colonizers built railways at the start of their rule regardless of the strength of pre-colonial states. Columns 3 and 4 repeat this analysis for the conflict linkage, intra-African conflicts from 1850 to 1899. The coefficients are again positive and significant.[15]

Finally, Figure 6 plots historical conflict against log per capita GDP in 1913 for the rest of the Old World.[16] Consistent with the argument that state development brings long-run economic benefits (e.g., Bates, 2009), there is a positive relationship between historical

[15]The results are similar in magnitude and significance if we use all conflicts fought in Sub-Saharan Africa between 1850 and 1899 rather than only intra-African conflicts.

[16]Historical GDP data from Maddison (2013) are not available to make this figure for Sub-Saharan Africa.

warfare and economic development before World War I.

Overall, this exercise shows evidence that, in line with our argument, historical warfare has influenced the evolution of state capacity and civil conflict through intermediate linkages.

6.2 Potential Channels

We can divide the control variables that we have used to this point into two categories. The first category includes controls such as initial conditions and geography that were fixed at the time that our variable of interest, historical conflict, was determined. The second category includes controls such as colonial origins that we can plausibly argue were (at least somewhat) exogenously imposed by Europeans. To test for transmission channels, we now consider "bad" controls (Angrist and Pischke, 2009, pp. 64-8). Unlike the previous controls, bad controls are themselves potential outcomes of historical conflict. To the extent that bad controls affect the magnitudes of our coefficients of interest, we can think of them as channels through which historical conflict influences state development outcomes.

Columns 1 to 5 of Table 9 present the results of this analysis for our main state capacity variable. The coefficient values for $Conflict_i$ and $Conflict_i \times Africa$ remain similar in magnitude and significance as before after including controls for political regime, ethnic fractionalization, trade openness, and education.[17] However, the point estimate for $Conflict_i \times Africa$ falls to 2.812 and loses significance for the specification that controls for social trust.[18] We interpret this result with caution, because the number of countries for which trust data are available is small (i.e., 47 observations) and differs from the baseline sample. With this caveat in mind, this result provides suggestive evidence that social trust is a potential channel through which historical conflict has influenced the evolution of state capacity in Sub-Saharan Africa.

Columns 6 to 10 repeat this analysis for our main civil conflict variable. Now the coefficient values for $Conflict_i \times Africa$ fall in magnitude and lose significance once we include education or social trust as controls. We again interpret these results with caution due to

[17] Political regime is the share of years of parliamentary democracy from 1945 to 2000 according to Besley and Persson (2011). Ethnic fractionalization is one minus the Herfindahl index of ethnolinguistic group shares circa 2001 from Alesina et al. (2002). Trade openness is average trade openness between 1950 and 1992 according to Sachs and Warner (1997). Education is average years of schooling between 1910 and 1960 among the population aged 15 to 64 as compiled by Ashraf and Galor (2011). The results are also similar if we control for warfare from 1816 to 1913 according to Dincecco and Prado (2012).

[18] Social trust is the fraction of World Values Survey respondents that agreed with the statement "Most people can be trusted" as compiled by Ashraf and Galor (2011).

the small sample for which these data are available. Still, education and social trust appear to be factors that mediate the relationship between historical warfare and current civil conflict.

Overall, this set of results support the evidence in Besley and Reynal-Querol (2014), who find that a history of conflict in Africa decreases inter-group trust and strengthens ethnic identify at the expense of national identity.

7 Conclusion

Are the long-run consequences of historical conflict different for Sub-Saharan Africa than for Europe or Asia? To address this question, we assemble new data on the locations of over 1,750 conflicts throughout the Old World from 1400 to 1799, which we use to test for the legacy of historical warfare on state development.

Our results are two-fold. First, we find that historical conflict predicts greater state capacity today across the Old World, including in Sub-Saharan Africa. Second, we find that historical conflict predicts greater civil conflict, but only in Sub-Saharan Africa. These results are robust to a broad range of specifications, controls, and samples. We show suggestive evidence for intermediate linkages and potential channels (trust, education) through which the consequences of historical warfare are transmitted.

To assess the overall legacy of historical warfare, Figure 7 plots historical conflict against log per capita GDP in 2000. The relationship between historical warfare and economic performance today is strongly positive for Asia, Europe, and North Africa (left panel). This evidence suggests that the logic of "war makes states" has positive long-run economic consequences across a great deal of the Old World. For Sub-Saharan Africa, however, the relationship between historical warfare and economic performance is strongly negative (right panel). Taken in conjunction with the previous results, this evidence suggests that Africa is in fact different. The negative consequences of persistent conflict from the pre-colonial era to the present appear to have outdone any economic benefits that historical warfare can bring through the creation of greater state capacity.

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Table 1: Conflicts by Century and Continent, 1400-1799

	1400s	1500s	1600s	1700s	Total	Avg
Europe	261	220	232	97	810	203
Asia	148	181	93	101	523	131
Sub-Saharan Africa	21	61	90	58	230	58
North Africa	12	28	33	25	98	25
Americas	3	38	21	35	97	24
Total	445	528	469	316	1,758	440

Source: Brecke (1999).

Note: Number of conflicts that start in each century.

Table 2: Historical Conflict and State Capacity: Main Results

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	Direct tax share, 1990-2000	Income tax share, 1999	Income tax bias, 1999	Tax/GDP ratio, 1999	Direct tax share, 1990-2000	Direct tax share, 1990-2000
Conflict, 1400-1799	0.457***	0.334**	0.426**	0.114	0.003***	1.227***
	(0.109)	(0.161)	(0.211)	(0.088)	(0.001)	(0.347)
	[0.000]	[0.042]	[0.048]	[0.199]	[0.001]	[0.001]
Conflict x Africa	4.301***	1.068**	1.611**	-0.248	0.018***	8.178***
	(1.371)	(0.428)	(0.634)	(0.253)	(0.006)	(2.819)
	[0.003]	[0.015]	[0.014]	[0.331]	[0.004]	[0.005]
Conflict measure	Years	Years	Years	Years	Number	Start
Country controls	Yes	Yes	Yes	Yes	Yes	Yes
Continent FE	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.610	0.647	0.686	0.788	0.601	0.605
Observations	70	72	71	73	70	70

Note: Estimation method is OLS. All regressions include full set of fixed effects by continent and country-level controls for log population density in 1500, log timing of Neolithic transition, log land suitability for agriculture, log absolute latitude, and area. Robust standard errors in parentheses, followed by corresponding p-values in brackets.

Table 3: Persistence of Conflict: Main Results

	(1)	(2)	(3)	(4)	(5)
Dependent variable	Civil war share, 1950-2000	Violence share (ordered) 1950-2000	Violence share (dummy) 1950-2000	Civil war share, 1950-2000	Civil war share, 1950-2000
Conflict, 1400-1799	0.055	0.337	0.284	-0.001*	-0.341
	(0.182)	(0.349)	(0.182)	(0.001)	(0.450)
	[0.763]	[0.336]	[0.123]	[0.090]	[0.450]
Conflict x Africa	2.727**	4.961**	2.364**	0.014***	6.206***
	(1.210)	(2.347)	(1.121)	(0.005)	(2.281)
	[0.026]	[0.037]	[0.037]	[0.009]	[0.008]
Conflict measure	Years	Years	Years	Number	Start
Country controls	Yes	Yes	Yes	Yes	Yes
Continent FE	Yes	Yes	Yes	Yes	Yes
R-squared	0.259	0.284	0.317	0.276	0.272
Observations	116	113	113	116	116

Note: Estimation method is OLS. All regressions include full set of fixed effects by continent and country-level controls for log population density in 1500, log timing of Neolithic transition, log land suitability for agriculture, log absolute latitude, and area. Robust standard errors in parentheses, followed by corresponding p-values in brackets.

Table 4: Historical Conflict and State Capacity: Robustness

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Dependent variable: Direct tax share, 1990-2000						
Conflict, 1400-1799	0.280**	0.459***	0.459***	0.436***	0.530***	0.443***	0.381***
	(0.136)	(0.115)	(0.116)	(0.125)	(0.185)	(0.104)	(0.130)
	[0.044]	[0.000]	[0.000]	[0.001]	[0.007]	[0.000]	[0.005]
Conflict x Africa	4.535***	4.135***	4.383***	4.616***	4.064**	2.250*	2.985*
	(1.387)	(1.402)	(1.470)	(1.429)	(1.767)	(1.239)	(1.573)
	[0.002]	[0.005]	[0.004]	[0.002]	[0.027]	[0.075]	[0.065]
Conflict measure	Years	Years	Years	Years	Years	Years	Years
Country controls	No	Yes	Yes	Yes	Yes	Yes	Yes
Continent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Colonial origins	No	Yes	No	No	No	No	Yes
Artificial borders	No	No	Yes	No	No	No	Yes
Legal origins	No	No	No	Yes	No	No	Yes
Other initial conditions	No	No	No	No	Yes	No	No
Other geography	No	No	No	No	No	Yes	Yes
R-squared	0.530	0.624	0.640	0.617	0.674	0.689	0.724
Observations	75	70	65	70	49	70	65

Note: Estimation method is OLS. All regressions include full set of fixed effects by continent and country-level controls for log population density in 1500, log timing of Neolithic transition, log land suitability for agriculture, log absolute latitude, and area. Robust standard errors in parentheses, followed by corresponding p-values in brackets. "Other initial conditions" are state antiquity in 1500 and technological adoption in 1500. "Other geography" are % pop at risk for malaria, % pop living in tropical zones, avg dist to nearest waterway, avg dist to nearest coast, ruggedness, % desert, and gem diamond extraction.

Table 5: Persistence of Conflict: Robustness

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Dependent variable: Civil war share, 1950-2000						
Conflict, 1400-1799	0.254	0.107	0.082	-0.018	-0.266	0.121	0.143
	(0.161)	(0.176)	(0.196)	(0.211)	(0.303)	(0.172)	(0.209)
	[0.116]	[0.545]	[0.675]	[0.933]	[0.385]	[0.485]	[0.497]
Conflict x Africa	2.791**	2.254*	2.605**	2.797***	2.725*	2.642**	2.248*
	(1.141)	(1.229)	(1.299)	(1.025)	(1.474)	(1.200)	(1.316)
	[0.016]	[0.070]	[0.048]	[0.007]	[0.069]	[0.030]	[0.091]
Conflict measure	Years	Years	Years	Years	Years	Years	Years
Country controls	No	Yes	Yes	Yes	Yes	Yes	Yes
Continent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Colonial origins	No	Yes	No	No	No	No	Yes
Artificial borders	No	No	Yes	No	No	No	Yes
Legal origins	No	No	No	Yes	No	No	Yes
Other initial conditions	No	No	No	No	Yes	No	No
Other geography	No	No	No	No	No	Yes	Yes
R-squared	0.206	0.356	0.250	0.281	0.300	0.340	0.372
Observations	132	116	108	116	76	116	108

Note: Estimation method is OLS. All regressions include full set of fixed effects by continent and country-level controls for log population density in 1500, log timing of Neolithic transition, log land suitability for agriculture, log absolute latitude, and area. Robust standard errors in parentheses, followed by corresponding p-values in brackets. "Other initial conditions" are state antiquity in 1500 and technological adoption in 1500. "Other geography" are % pop at risk for malaria, % pop living in tropical zones, avg dist to nearest waterway, avg dist to nearest coast, ruggedness, % desert, and gem diamond extraction.

Table 6: Potential Bias from Unobservables

Controls in Restricted Set	Controls in Full Set	(1) Direct tax share, 1990-2000	(2) Civil war share, 1950-2000
Panel A: Conflict, 1400-1799			
None	Baseline controls	-2.83	0.37
Baseline controls	Colonial origins	-188.25	-2.06
Baseline controls	Legal origins	20.75	-0.24
Baseline controls	Other initial conditions	17.09	-2.80
Baseline controls	Other geography	30.71	-1.84
Panel B: Conflict x Africa			
None	Baseline controls	21.09	-202.09
Baseline controls	Colonial origins	24.87	4.76
Baseline controls	Legal origins	-14.67	-40.26
Baseline controls	Other initial conditions	-36.35	34.69
Baseline controls	Other geography	1.10	30.97

Note: Each cell reports ratio based on coefficients for Conflict, 1400-1799 (Panel A) or Conflict x Africa (Panel B) for two regressions. The first includes covariates for "restricted" set of controls as listed; we label this coefficient $\hat{\beta}^r$. The second includes covariates for "full" set of controls as listed; we label this coefficient $\hat{\beta}^f$. We compute the ratio as $\hat{\beta}^f / (\hat{\beta}^r - \hat{\beta}^f)$. "Baseline controls" are log pop density in 1500, log timing of Neolithic transition, log land suitability for agriculture, log absolute latitude, and area. "Other initial conditions" are state antiquity in 1500 and technological adoption in 1500. "Other geography" are % pop at risk for malaria, % pop living in tropical zones, avg dist to nearest waterway, avg dist to nearest coast, ruggedness, % desert, and gem diamond extraction. All regressions include a full set of fixed effects by continent.

Table 7: Alternative Samples

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable	Direct tax share, 1990-2000	Civil war share, 1950-2000	Direct tax share, 1990-2000	Civil war share, 1950-2000	Direct tax share, 1990-2000	Civil war share, 1950-2000	Direct tax share, 1990-2000	Civil war share, 1950-2000
	Exclude 1700s		No South Africa		No China, Russia		Include Americas	
Conflict, 1400-1700	0.450***	-0.096						
	(0.089)	(0.150)						
	[0.000]	[0.524]						
Conflict, 1400-1799			0.455***	0.057	0.418***	0.076	0.267*	0.082
			(0.110)	(0.181)	(0.103)	(0.206)	(0.142)	(0.170)
			[0.000]	[0.753]	[0.000]	[0.715]	[0.064]	[0.632]
Conflict x Africa	2.603***	3.400***	3.297***	2.741**	3.830***	2.316*	3.981***	2.731**
	(0.684)	(0.783)	(0.916)	(1.229)	(1.323)	(1.171)	(1.298)	(1.230)
	[0.000]	[0.000]	[0.001]	[0.028]	[0.005]	[0.051]	[0.003]	[0.028]
Conflict measure	Years	Years	Years	Years	Years	Years	Years	Years
Country controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Continent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.618	0.294	0.632	0.262	0.620	0.320	0.446	0.232
Observations	70	116	69	115	69	114	88	141

Note: Estimation method is OLS. All regressions include full set of fixed effects by continent and country-level controls for log population density in 1500, log timing of Neolithic transition, log land suitability for agriculture, log absolute latitude, and area. Robust standard errors in parentheses, followed by corresponding p-values in brackets.

Table 8: Intermediate Linkages

	(1)	(2)	(3)	(4)
Dependent variable	Log railway km, 1910		African conflict, 1850-99	
Conflict, 1400-1799	5.465***	5.077***	1.441**	1.159**
	(1.102)	(0.898)	(0.618)	(0.482)
	[0.000]	[0.000]	[0.026]	[0.023]
Conflict x Africa	-6.486*	-3.139		
	(3.283)	(5.071)		
	[0.054]	[0.539]		
Conflict measure	Years	Years	Years	Years
Country controls	Yes	Yes	Yes	Yes
Continent FE	Yes	Yes	No	No
Colonial origins	No	Yes	No	Yes
R-squared	0.647	0.745	0.395	0.567
Observations	59	59	40	40

Note: Estimation method is OLS. All regressions include country-level controls for log population density in 1500, log timing of Neolithic transition, log land suitability for agriculture, log absolute latitude, and area. Sample for regressions 1-2 is Old World; we thus include full set of fixed effects by continent. Sample for regressions 3-4 is Sub-Saharan Africa only; we thus exclude continental fixed effects. Robust standard errors in parentheses, followed by corresponding p-values in brackets.

Table 9: Potential Channels

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dependent variable	Direct tax share, 1990-2000					Civil war share, 1950-2000				
Conflict, 1400-1799	0.394***	0.453***	0.338*	0.457***	0.405***	0.028	0.089	0.550*	0.057	-0.026
	(0.130)	(0.110)	(0.195)	(0.113)	(0.127)	(0.191)	(0.185)	(0.302)	(0.198)	(0.154)
	[0.004]	[0.000]	[0.092]	[0.000]	[0.003]	[0.882]	[0.630]	[0.073]	[0.773]	[0.868]
Conflict x Africa	4.151***	4.283***	4.308**	5.054***	2.812	2.753**	2.570**	2.430**	1.712	0.832
	(1.163)	(1.447)	(1.673)	(1.485)	(1.814)	(1.222)	(1.225)	(1.081)	(1.753)	(2.381)
	[0.001]	[0.004]	[0.014]	[0.001]	[0.130]	[0.026]	[0.038]	[0.028]	[0.332]	[0.728]
Conflict measure	Years	Years	Years	Years	Years	Years	Years	Years	Years	Years
Country controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Continent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Democracy	Yes	No	No	No	No	Yes	No	No	No	No
Fractionalization	No	Yes	No	No	No	No	Yes	No	No	No
Trade openness	No	No	Yes	No	No	No	No	Yes	No	No
Education	No	No	No	Yes	No	No	No	No	Yes	No
Trust	No	No	No	No	Yes	No	No	No	No	Yes
R-squared	0.620	0.611	0.661	0.651	0.553	0.260	0.269	0.396	0.315	0.409
Observations	70	69	47	55	47	114	115	74	83	60

Note: Estimation method is OLS. All regressions include full set of fixed effects by continent and country-level controls for log population density in 1500, log timing of Neolithic transition, log land suitability for agriculture, log absolute latitude, and area. Robust standard errors in parentheses, followed by corresponding p-values in brackets.

Table A1: Descriptive Statistics

	Obs	Mean	Std Dev	Min	Max
Share of years of conflict, 1400-1799	149	0.0720	0.126	0	0.729
Number of conflicts, 1400-1799	149	13.21	35.11	0	351
Share of years of conflict starts, 1400-1799	149	0.0279	0.0598	0	0.501
Average share of direct taxes in total taxes, 1990-2000	75	0.467	0.167	0.136	0.795
Share of income taxes in total taxes, 1999	84	0.380	0.196	0.0431	0.785
Income tax bias, 1999	83	0.205	0.318	-0.600	0.745
Total taxes to GDP, 1999	85	0.212	0.125	0.0280	0.520
Share of years of civil conflict, 1950-2000	132	0.126	0.231	0	1
Average share of political violence, 1945-2000 (ordered)	128	0.319	0.475	0	2
Average share of political violence, 1945-2000 (dummy)	128	0.190	0.251	0	1
Europe	149	0.309	0.464	0	1
Asia	149	0.329	0.471	0	1
North Africa	149	0.0403	0.197	0	1
Sub-Saharan Africa	149	0.322	0.469	0	1
Log population density, 1500	132	1.241	1.334	-1.939	4.135
Log timing of Neolithic revolution (millenia elapsed until 2000)	131	8.436	0.593	5.892	9.259
Log land suitability for agriculture	126	-1.616	1.440	-5.857	-0.186
Log absolute latitude	146	3.018	1.025	0	4.174
Land area (1,000,000 sq km)	149	0.552	1.604	1.95e-06	16.38
British colony	144	0.278	0.449	0	1
French colony	144	0.174	0.380	0	1
Portuguese colony	144	0.035	0.184	0	1
Spanish colony	144	0.014	0.117	0	1
Other European colony	144	0.042	0.201	0	1
British legal origins	146	0.260	0.440	0	1
French legal origins	146	0.432	0.497	0	1
Technology adoption, 1500	89	0.775	0.313	0	1
State antiquity, 1500	117	0.497	0.242	0.0280	0.964
Share of population at risk of malaria	132	0.357	0.443	0	1
Share of population share living in tropical zone	128	0.237	0.382	0	1
Average distance to nearest waterway (1,000 km)	128	0.365	0.475	0.0110	2.386
Average distance to nearest coast (1,000 km)	128	0.349	0.427	0	2.206
Terrain ruggedness	144	1.497	1.462	0.0116	6.740
Share of land that is desert	144	0.0424	0.125	0	0.773
Gem diamond extraction, 1958-2000 (1,000 carats/sq km)	144	5.761	28.46	0	208.7
Log railway km, 1910	62	7.386	1.775	2.197	11.11
Share of years of intra-African conflict, 1850-99	48	0.0771	0.126	0	0.580
Share of years of parliamentary democracy, 1945-2000	148	0.202	0.341	0	1
Ethnic fractionalization, 2001	139	0.462	0.266	0	0.930
Average trade openness, 1950-92	82	0.318	0.384	0	1
Average education, 1910-60 (years of schooling)	96	4.699	2.951	0.409	9.620
Social trust	70	0.282	0.135	0.049	0.664
Log per capita GDP, 2000	138	8.403	1.273	5.884	10.78

Sources: See text.

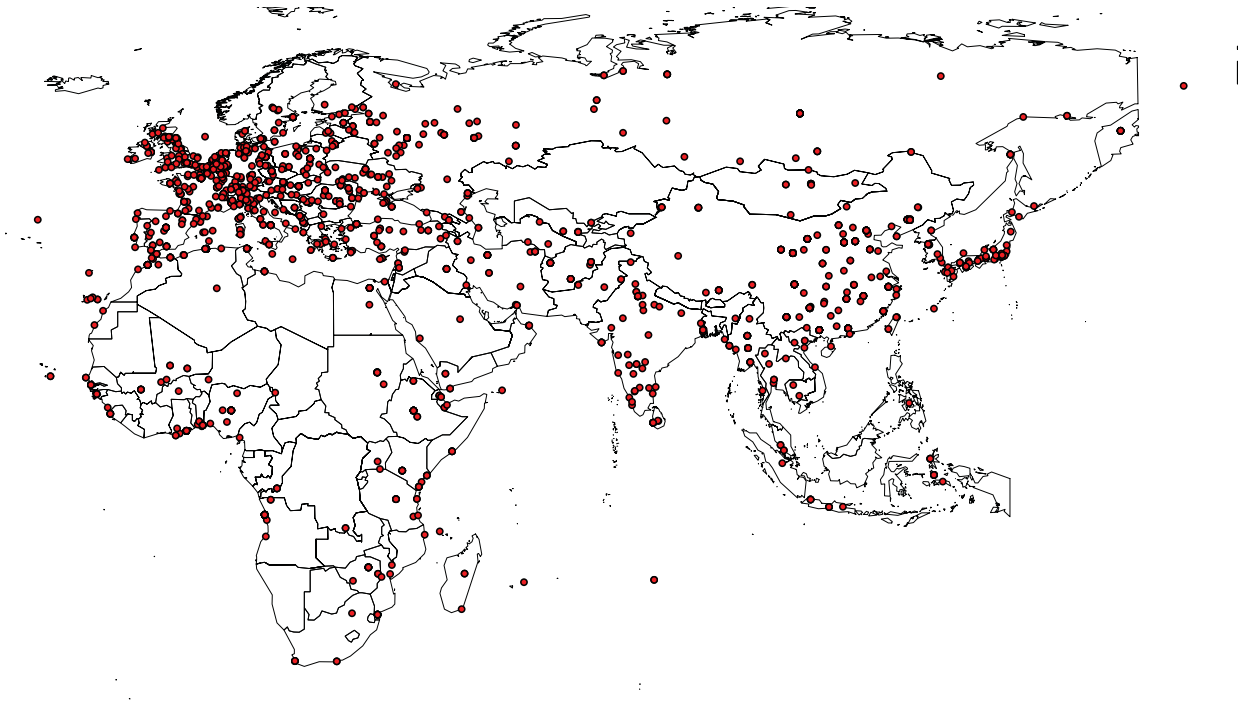

Figure 1: Old World Conflict Locations, 1400-1799. Note: 1,758 conflicts in Africa, Asia, and Europe included. Source: Brecke (1999).

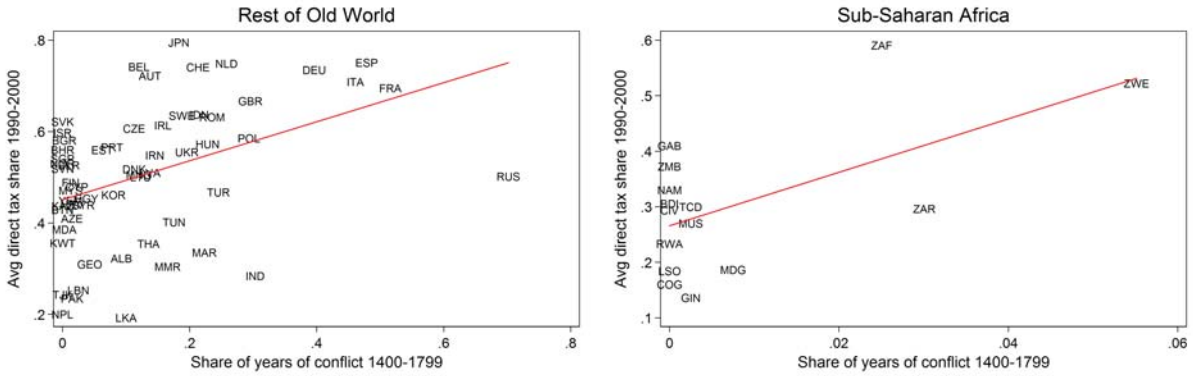

Figure 2: Historical Conflicts and Fiscal Capacity. Note: "Rest of Old World" refers to Asia, Europe, and North Africa. Sources: Brecke (1999) for historical conflicts; Dincecco and Prado (2012) for fiscal capacity.

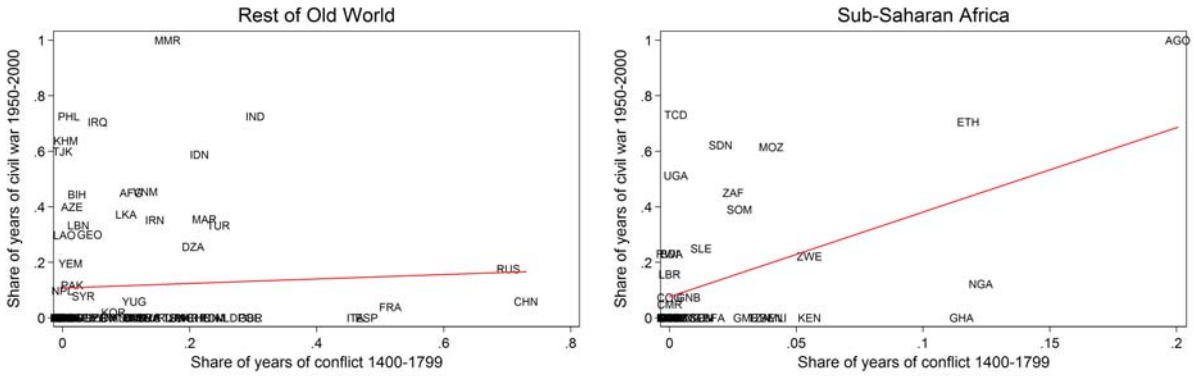

Figure 3: Persistence of Conflict. Note: "Rest of Old World" refers to Asia, Europe, and North Africa. Sources: Brecke (1999) for historical conflicts; Besley and Persson (2011) for civil wars.

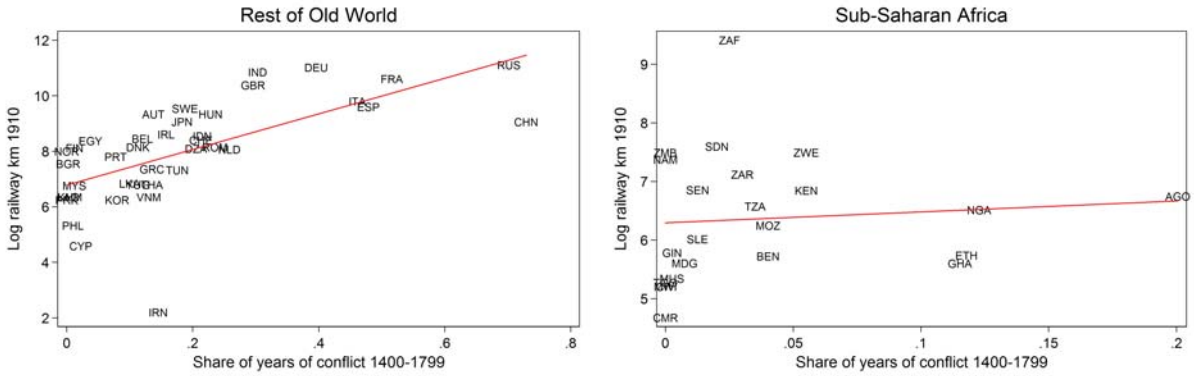

Figure 4: Intermediate Linkage: Log Railway Kilometers, 1910. Note: "Rest of Old World" refers to Asia, Europe, and North Africa. Sources: Brecke (1999) for historical conflicts; Mitchell (2007a,b,c) for railway kilometers.

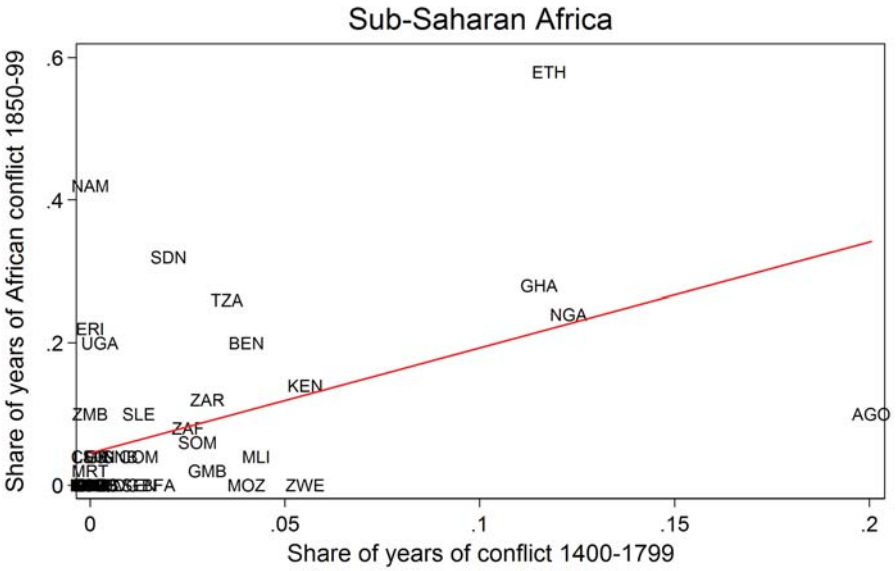

Figure 5: Intermediate Linkage: Intra-African Conflict, 1850-99. Sources: Brecke (1999) for historical conflicts; Fenske and Kala (2014a) for intra-African conflict.

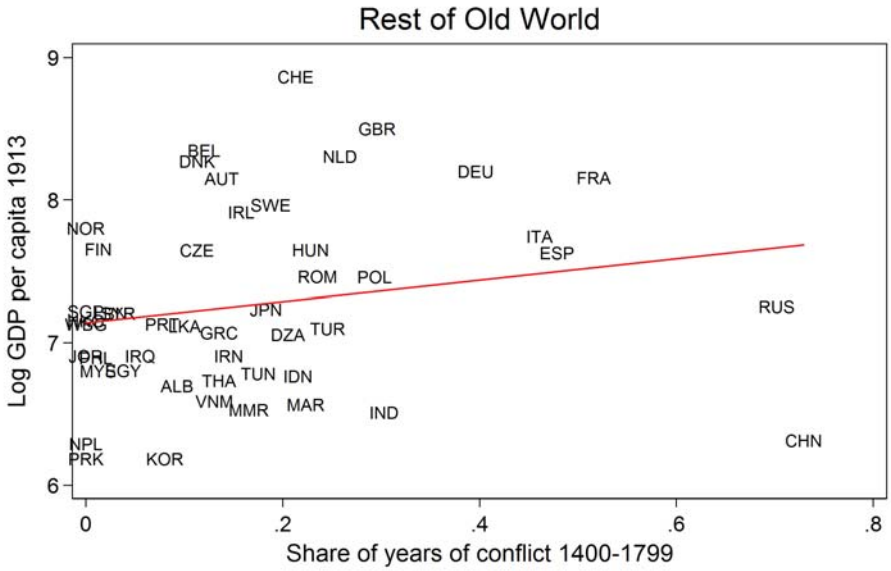

Figure 6: Historical Conflict and Economic Performance, 1870. Note: "Rest of Old World" refers to Asia, Europe, and North Africa. Sources: Brecke (1999) for historical conflicts; Maddison (2013) for GDP.

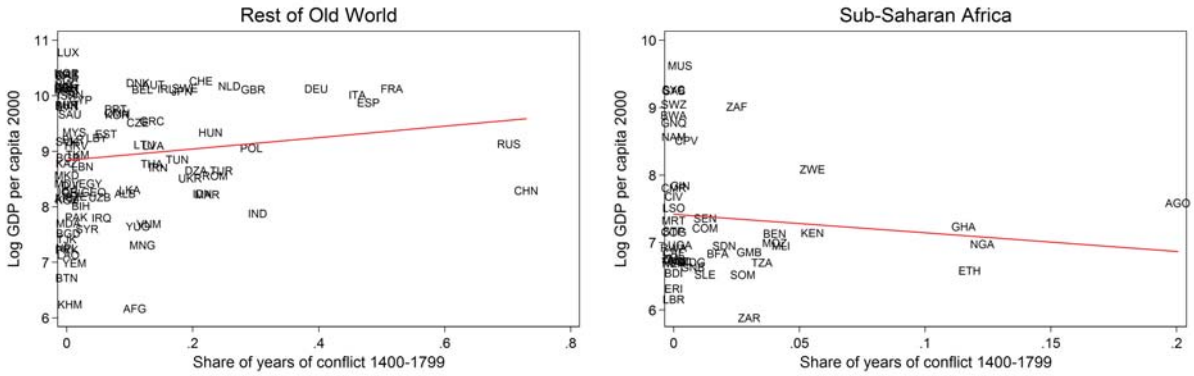

Figure 7: Historical Conflict and Economic Performance. Note: "Rest of Old World" refers to Asia, Europe, and North Africa. Sources: Brecke (1999) for historical conflicts; Besley and Persson (2011) for GDP.