

The Transatlantic Slave Trade and Political Instability in African Polities, 1200-1900

Anders Gammelholm Wieland*

October 21, 2021

Abstract

This paper examines the effects of the transatlantic slave trade on political instability in precolonial Africa. I exploit variation on locations of European slave ports, and combine it with time variation arising from the Americas' sudden increased demand for African slaves in 1680. Using data on ruler duration on over 2,500 precolonial African rulers in the period between 1200 and 1900, I show that African rulers after 1680 had shorter lengths of ruler tenure if they were situated in vicinity of slave ports. IV-estimation that uses distance from slave destinations in the Americas to instrument for proximity to slave ports in Africa supports my results. The mechanism driving these results is possibly exchanges in slaves for firearms, which provided elites with military means to challenge rulers.

Keywords: Political Instability; The Transatlantic Slave Trade; Ruler Duration; Precolonial Africa.

*Department of Political Science, Aarhus University, angw@ps.au.dk.

I Introduction

An influential literature traces the deep roots of African underdevelopment to its weak and unstable pre-colonial institutions. While it now seems increasingly clear that large parts of Africa's underdevelopment can be explained by precolonial institutions,¹ scholars still debate why African institutions became weak and unstable in the first place. One prominent example is Herbst (2000) who argues that African state weakness is ancient in origin and primarily rooted in a harsh physical environment that makes it difficult and costly to broadcast political power.² Cooper (2002), on the other hand, proposes that Africa's weak and unstable institutions can be traced to European colonization. Colonial agents developed, according to Cooper (2002), "gate-keeper states" that only extracted natural resources without building institutions required to promote long-run development.³

Colonial governments are certainly to blame for many of Africa's problems today, however Europeans' influence on Africa starts well before the colonial era. One event that fundamentally changed the African continent was the transatlantic slave trade. For a period of nearly 400 years, from 1500 to 1900, more than 12 million Africans were brutally captured through wars, raids or kidnappings, and then shipped across the Atlantic Ocean to work as slaves on the Americas' new plantations. A distinguished line of scholarship stresses the slave trade as the primary origin of Africa's unstable states.⁴ For example, Lovejoy (2000, 67) suggests that the slave trade developed a violent and politically uncertain environment which resulted in a "general pattern of political disintegration". Miller (1988, 127) further notes how this unstable political environment also increased the assassinations of rulers and that "duration of reigns tended

¹For instance, Gennaioli & Rainer (2007) document that pre-colonial state centralization is positively correlated with modern economic development in a cross-country setting. Michalopoulos & Papaioannou (2013) adds local structures to this analysis, and show that pre-colonial ethnic groups with more centralized structures also experience more economic development today. See Michalopoulos & Papaioannou (2020) for a review of the literature.

²Herbst (2000) is not the only one to highlight how environmental factors shape African institutions. For instance, Bates (1983) argues that long-distance trade arising from ecological diversity facilitated African state development. Hopkins (1973) notes that Africa's physical environment can explain technological choices and the institution of slavery. In a similar fashion, Iliffe (2007) traces the prevalence of polygyny to one consequence of Africa's physical environment, the high labor scarcity. Fenske (2013) has applied similar logics to explain the variation of property rights within pre-colonial and contemporary Africa.

³Many prominent scholars have highlighted the importance of colonial governance in shaping contemporary African states. Young (1994) famously argued that the authoritarian nature of the colonial government became the primary role model for post-colonial politicians who adapted similar practices. Mamdani (1996) suggested that the weak and corrupt post-independent state had its origin in indirect rule instituted by colonial powers.

⁴See Manning (1990); Davidson (1961); Rodney (1972) for works on the adverse effects of the slave trades. Barry (1998, chap. 3) provides a case study of Senegambia and how the slave trade distorted state development and political stability.

to fall” in African polities involved in the slave trade.

In this paper, I examine the historical origin of Africa’s unstable states. I exploit semi-exogenous time variation arising from one of the largest external shocks the African continent experienced before colonial rule, namely the sudden increase in demand for African slaves in 1680. In the late 17th century, sugar consumption in Europe was rising rapidly, and plantation owners in the Americas viewed Africa’s inexpensive slaves as a way to expand production. As African rulers were unable to fulfill the substantial demand for slaves, local elite instead made direct contact to European traders, making the unfortunate exchange in slaves for firearms. The introduction of firearms into Africa fundamentally changed the balance of power in favor of elites who exploited the coercive potential of firearms to challenge rulers, producing political instability and shorter reigns among African rulers.

For my empirical analysis, I combine variation in ruler duration on over 2,500 precolonial African rulers in the period between 1200 and 1900, together with data on locations of European slave ports. I use a difference-in-differences approach to show that African rulers after the external demand for slaves in 1680 had shorter lengths of ruler tenure if they were situated in vicinity of slave ports. To further address potential concerns about omitted confounders and reverse causality, I also adopt an instrumental variable approach. I use distance from slave destinations in the Americas as an exogenous source of variation in proximity to slave ports in Africa. Like my OLS results, the IV estimates suggest African rulers after 1680 had significantly shorter reigns if they were located close to European slave ports. I also provide preliminary evidence on main mechanism. I first show that 1680 constituted a significant rise in both exported slaves and imported guns. I then demonstrate that an increase in slave exports are significantly associated with higher import of guns after 1680.

My paper is related to a prominent literature on the historical consequences of the transatlantic slave trade. In a seminal contribution, Nunn (2008) collects data on the number of slaves exported from each country in Africa, and documents a negative association between slave exports and long-run development in Africa. Nunn’s (2008) impressive work sparked subsequent research primarily aimed at uncovering the main causal mechanisms behind slave exports and long-run development (e.g. Whatley & Gillezeau, 2011; Zhang et al., 2021; Dalton & Leung, 2014; Nunn & Wantchekon, 2011).

My paper is strongly related to Obikili (2016) and Whatley (2014) who examine the effect of the slave trade on institutions in precolonial Africa. Combing ethnographic data on precolonial political fragmentation with records on slave exports, Obikili (2016) finds that villages and towns of ethnic communities with higher slave exports were more politically fragmented in the period before European colonization. In a related study, Whatley (2014) examines the impact of slave exports on precolonial political authority, using port-level data on slave exposure and information from Murdock (1967) on how ethnicities' appointed local headmen. Whatley (2014) argues that slavery incentivized ethnic communities to reorganize institutions to capture and enslave Africans, leading to more absolutist and extractive institutions. Focusing on West Africa, he uncovers a significant correlation between exposure to slavery and absolutist ethnic institutions in the era before colonial rule. However, since Obikili (2016) and Whatley (2014) utilize cross-sectional data on ethnic institutions in the 19th century, they are unable to examine the effects of the slave trade over time. My paper contributes by examining the time varying impact of slavery on institutional development in precolonial Africa.

My paper also contributes to burgeoning literature that uses duration of reigns for medieval and early modern rulers as an indicator for political stability. In a captivating article, Blaydes & Chaney (2013) demonstrate that the feudal military organization of Western Europe empowered decentralized nobilities at the expense of rulers, thus facilitating the advent of representative institutions and increased political stability among European monarchs. Kokkonen & Sundell (2014) find that European monarchs who based succession rules on primogeniture were less likely to be deposed by elites. The rise to great political stability not only occurred in Europe. In a recent working paper, Wang (2018) collects new data on Chinese emperors, and demonstrates that more liberal marriage and inheritance norms provided Chinese emperors with sustained availability of male heirs, which increased political stability. My paper contributes with the first empirical study on ruler duration in precolonial Africa.

The remainder of the paper is structured as follows. In the next section, I present my historical argument. This is followed by a description of my empirical data. Finally, I present the results.

2 Historical Background

In the four centuries preceding colonial rule, the African continent experienced one of its darkest periods: the transatlantic slave trade (henceforth the slave trade).⁵ From the early 1500s to the late 19th century, millions of Africans were brutally captured through wars, raids or kidnappings, and then shipped to South America, the Caribbean and the Southern United States. Across the Atlantic Ocean, Africans encountered a harsh environment characterized by heavy slave labor on the Americas' new plantations (see Manning, 1990; Law, 1991; Lovejoy, 2000, for great works on the history of the slave trade).

The slave trade is commonly divided into two phases. The first phase began in 1526 when the first recorded slave ship sailed directly to the Americas from Africa,⁶ and ended in 1680 once the Americas' demand for slave labor increased abruptly. During this early phase, slave trading was comparatively speaking small and slaves had not yet become Africa's dominant export (Thomas, 1997; Eltis et al., 1999; Lovejoy, 2000). Estimates from Eltis et al. (1999) suggest that Europeans purchased no more than 2,000 slaves per year in the first century of the trade while over 50,000 slaves were shipped annually to the Americas after the late 17th century. Regular economic trades between African rulers and European merchants instead characterized this early period. European goods such as luxurious textile materials and metal goods were primarily exchanged for African resources, mainly ivory, species and gold (chap. 4 Law, 1991).

Historians suggest that the impact of slavery and slave trade prior to the late 17th century should not be exaggerated. The most important changes of that time resulted not from slave exports in particular but more generally from new economic connections with European traders (e.g. Manning, 2006, 103). The slave trade, or more precisely regular economic trade with Europeans, were a blessing for African rulers at this early stage. When Europeans ventured down the coastline of Africa, they usually initiated relations with African rulers who possessed sufficiently developed institutions to facilitate trade (Hilton,

⁵Besides the well-known transatlantic slave trade, three smaller slave trades – the trans-Saharan, Red Sea and Indian Ocean slave trades – had dominated large parts of the African continent centuries before the Europeans came to Africa (see Lovejoy, 2000, chap. 1). My focus is on the transatlantic slave trade because its massive scale clearly distinguished it from any other slave trades at the time. Moreover, Nunn (2008) estimates that the negative effects of the slave trades on African development are exclusively driven by the Atlantic trade.

⁶Europeans also purchased African slaves before this era. However, such slaves were not considered part of the transatlantic trade system because they were shipped back to Europe to work on primarily Spanish and Portuguese estates (Eltis, 2001).

1985; Vansina, 1990). African rulers who encountered Europeans traders quickly managed to establish a royal monopoly on the trade. Historical sources indicate that rulers usually had the right to do their own trade before any other officials, thus enabling them to trade in the most valuable goods first. Kings also levied a fixed custom on both African officials and Europeans merchants (Law, 1991, 210). As such, commerce with the Europeans led to a massive influx of new revenues into the pockets of African rulers. Various historians propose that the new resources from trade enabled rulers to secure political support and loyalty by redistributing European goods as rewards to important political actors. The result was often increased political stability in African kingdoms involved in the early slave trades (Manning, 1983; Miller, 1988; Klein, 1990).

While African rulers seem to have benefited from economic interactions with Europeans early on, one particular case does not fit this general pattern. In the 16th century, the Kingdom of Kongo became the main source of slaves for plantations in São Tomé and Brazil. Numerous historical sources confirm the corrosive effect of slave exports on the kingdom. The massive enslavement of people through raids and kidnappings created a politically unstable environment that weakened and eventually became the fall of the once powerful kingdom (Hilton, 1985, chap. 3).⁷ While the Kingdom of Kongo served to foreshadow the destructive features of slavery, the local and episodic impact of the slave trade had yet to become broad and general, but the writing was on the wall (Manning, 2006, 103).

In the second phase of slave trade, things drastically changed for African rulers involved in the slave trade. From the late 17th century, demands for African slaves in the Americas increased rapidly. Driving this growing demand was an enlargement of sugar consumption in Europe. Once the indulgence of the rich, sugar was now becoming increasingly more common among European countries. The sugar plantations in the Americas responded to the new demand by expanding production, and thus a larger labor force became necessary to keep up with production. As plantation owners were unwilling to put in the work themselves, they instead looked to Africa and its inexpensive slaves as the solution (Manning, 1990).

Rising sugar demand made competing European merchants rush to Africa in order to purchase slaves.

⁷ see also Rodney (1972) and Barry (1998) who suggest similar perverse effects of slavery for the Upper Guinea region.

The immediate consequence was skyrocketing slave prices. From 1680 to 1690, prices for African slaves had more than tripled (Manning, 1983), and by the mid-18th century prices were rounding a fivefold increase (Eltis & Richardson, 2004). Incentivized by high slave prices, African rulers whom Europeans had traded with for over a century willingly sold the abundance of slaves they acquired through state sponsored warfare against their neighbors.⁸ However, as the frontiers of warfare gradually were expanding, African rulers found it difficult to meet the Europeans' high demand for slaves (e.g. Manning, 1990; Lovejoy, 2000). With high slave prices, the benefits of slaving were now so great that African elites began to challenge the royal monopoly. This was a welcome opportunity for the Europeans, who only initially had accepted the royal monopoly because it previously had worked in their favor. Provincial elites began seeking direct access to the foreign traders, and they had the people with whom to pay. European merchants recognized the elites as source of prompt payment in slaves, and they generally could expect better deals than from a royal monopolist in charge of a single marketplace (Miller, 1988, 127).

However, African elites not only received regular trade goods from selling slaves, they also obtained firearms. The introduction of firearms into Africa was arguably the most significant technical innovation to arrive from the Atlantic trade (Northrup, 2014, 97) and it radically altered African warfare (Richards, 1980). Prior to 1680 only around 2,000 guns arrived on the coastline of Africa (Whatley, 2018, 82) while the British alone in the 18th to 19th centuries sold between 283,000 and 394,000 guns a year (Inikori, 1977). The massive influx of firearms created a so-called slave-gun cycle that reinforced a vicious cycle where more guns gave elites the coercive capacity to generate captives for exports, which again enabled them to purchase more guns and thus facilitate slaving further (e.g. Lovejoy, 2000; Hawthorne, 2003). Moreover, historians agree that the introduction of firearms created hostilities between elites and rulers (Miller, 1988, 126-129; Manning, 1990, 131-135; Lovejoy, 2000, 108).

Miller (1988, 127) provides a compelling discussion of the introduction of firearms and its consequences for political stability in precolonial Angola. The firearms that Europeans formerly had traded with kings where now instead supplied to "nobles seeking the royal emblems for themselves. Conflict

⁸African rulers also acquired slaves by altering domestic juridical institutions. Capital punishment was no longer death but instead enslavement. This enabled rulers to capitalize on undesirable citizens (see Manning, 1990, for different ways Africans became enslaved).

over succession at the center intensified accordingly, and the frequency of assassinations and interregna increased, while the duration of reigns tended to fall". Comparable patterns occurred further up north. West Africa in particular seems to have been hit extremely hard by increased demand for slaves. Most of the powerful kingdoms of West Africa, such as Dahomey, Ashanti, Benin and Oyo, were initially founded on wealth from slave trading but the influx of firearms intensified warfare between elites and rulers. For example, the Dutch Director General of Elmina Castle noted in 1730 how the Kingdom of Ashanti of modern day Ghana was affected:

The great quantity of guns and powder which the Europeans have brought have caused terrible wars between the Kings and Princes and Caboceers of these lands, who made their prisoners of war slaves; these slaves were immediately bought up by Europeans at steadily increasing prices, which in its turn, animates again and again these people to renew their hostilities, and their hope of big and easy profits makes them forget all labour, using all sorts of pretexts to attack each other or reviving old disputes. (quoted in Richards, 1980, 46)

The slave trading also greatly influenced domestic politics in Dahomey of modern day Benin. With the slave trade emerged two conflicting political factions. One faction, mainly those made rich by slave trading, strongly supported further economic interactions with Europeans while the other faction recognized the harm slaving had on Dahomean society, and fiercely opposed any contact with Europeans. Over times, hostility between the two factions grew and violent confrontations increased accordingly (Yoder, 1974).

To summarize the historical narrative, in the beginning of the slave trade when few slaves were exported, commerce with European merchants seems to have strengthen the political position of African rulers. However, when demand for African slaves in 1680 rapidly increased, things started to change. African elites challenged the royal monopoly, and made direct contact to European traders, exchanging slaves for firearms. The introduction of firearms changed the balance of power in favor of elites who exploited its coercive potential to challenge rulers, producing political instability and shorter duration of reigns.

3 Data

The starting point for compiling my dataset is Stewart's (2006) encyclopedia of *African States and Rulers* that recently has been digitalized by Müller-Crepon (2020). The encyclopedia holds information on various indigenous, colonial and post-colonial African states. The encyclopedia provides a short history of African states and enlists detailed enumerations of its different rulers throughout history. Stewart (2006) also lists the occurrence of important events, such as dates polities were conquered, colonized and became independent. The information originates from a comprehensive list of sources, among them historical case studies, the *Journal of African History*, and encyclopediae such as the *Cambridge History of Africa*.

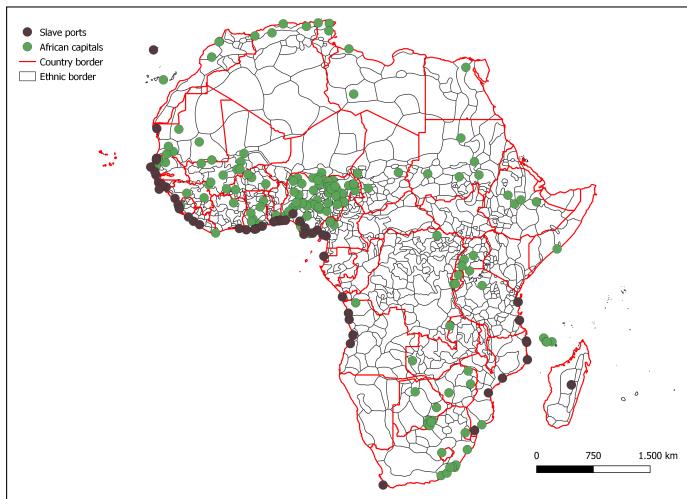
The primary information for my empirical analysis is Stewart's (2006) extensive list of when rulers entered and left office. I take advantage of this and constructs a measure that counts the number of the years African rulers reigned. This will be my primary outcome in my empirical analysis. Ruler duration is now considered a widely used measure of political stability. Duration of individual rule in the modern period has long been regarded an important indicator of political stability (Bueno de Mesquita et al., 2003; Svolik, 2012). Political scientists have also employed duration of reigns in medieval and early modern times, and shown how rulers became long lived with the introduction of feudalism (Blaydes & Chaney, 2013) and primogeniture (Kokkonen & Sundell, 2014).

I limit my sample to the period between 1200 and 1900. Starting the sample in 1200 enables me to capture the rise of Africa's first powerful kingdoms, the so-called Sahelian kingdoms (Reid, 2012). Since I am only interested in the effect of the slave trade on precolonial rulers, I decide to remove polities from the sample whenever they experience European colonization. The sample therefore only consists of pre-colonial African polities.

To add additional control variables, I need geographic information on the location of African rulers. Stewart (2006) provides detail information on the capital location for most precolonial polities. Using various online sources, Müller-Crepon (2020) geocodes the locations of all capitals mentioned in Stewart's (2006) encyclopedia. I create a 50-kilometer buffer around each capital, and then overlay these buffers with data from various datasets.

To capture the impact of the transatlantic slave trade, I rely on data from Fenske & Kala (2017)

Figure 1: Geographic Location of European Slave Ports and African Capitals

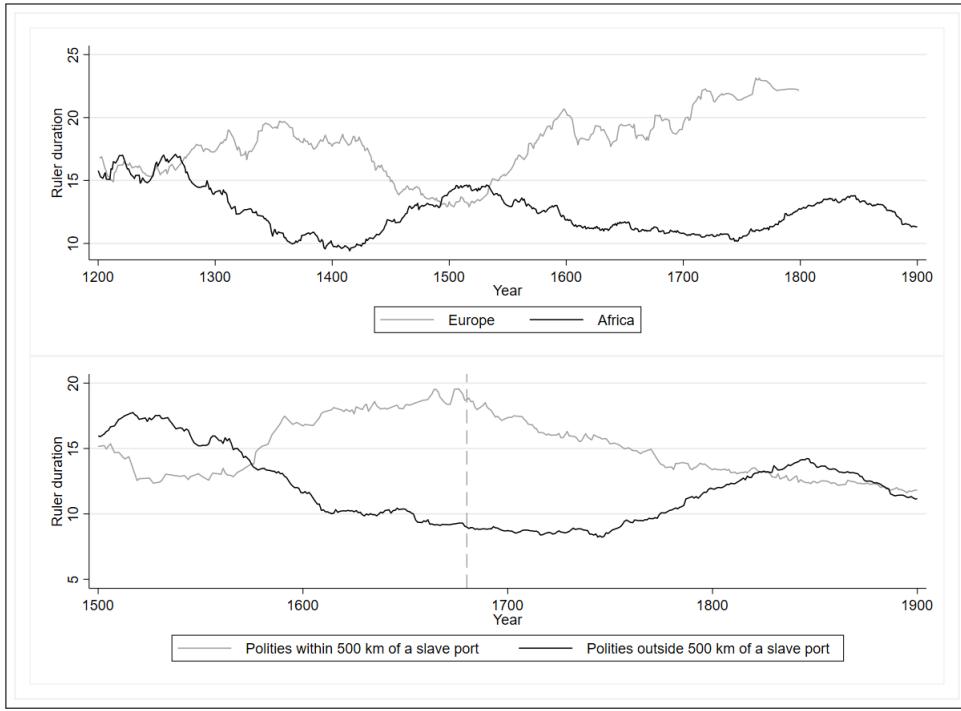


Note: The figure shows the geographic location of European Slave Ports and African Capitals. The green dots are precolonial African capitals, while brown dots represent European slave ports. The black lines indicate ethnic boundaries. The red line is borders for contemporary African countries.

who geocode the location of 59 European slave ports from Eltis et al.'s (1999) *Trans-Atlantic slave trade database*. Based on the location of African polities, I use this data source to construct a simple measure of proximity to European slave ports. This measure will serve as my main explanatory variable. The operationalization of my explanatory variable is based on the idea that the effect of the slave trade was strongest near European slave ports, while the negative effects decrease with distance.

Figure 1 shows the geographic locations of European slave ports and African capitals. The green dots show the capitals of 170 precolonial African polities in the period 1200-1900. The dark brown dots in the figure illustrate locations of 59 European slave ports. The small black lines represent precolonial ethnic borders, whereas the red lines indicate boundaries of contemporary African countries. Over 80 percent of ports are located within West Africa, indicating in line with historical sources that most slaves seem to have been exported from that region. Similarly, the map illustrates that approximately 50 percent of all polities originate from West Africa.

Figure 2: Trends in Ruler Durations



Note: The upper figure compares ruler durations in African and European rulers. The gray line shows the 100-year moving average for European rulers while the dark line indicates tenures for African rulers. The lower figure compares the 100-year moving average between African rulers that reside with 500 kilometers of a European slave port to rulers 500 kilometers outside a slave port. The dotted line is centered on the year 1680.

4 Trends in Ruler Durations

This section examines the changing trends in ruler durations. Figure 2 presents trends in ruler duration. In the upper graph, I investigate the historical development of ruler durations between Africa and Europe. The grey line shows the 100-year moving average for ruler durations in Europe whereas the dark line indicates the moving average for African rulers. For African rulers, my main data source is Stewart's (2006) encyclopedia. For European monarchs, my data source is Kokkonen & Sundell (2014).⁹

In 1500, at the beginning of the slave trade, African rulers experienced a small advantage in terms of political stability compared to European monarchs. On average, African rulers reigned for 14 years in 1500, whereas European monarchs instead sat on the throne for approximately 13 years. Over the next centuries,

⁹This is not a complete sample of heads of states in Europe, but only includes leaders from major monarchies. The sample is not representative for all European leaders, especially not for the heads of states of the numerous principalities in the Holy Roman Empire.

as the slave trade intensified, this small difference in political stability greatly changed. While European monarchs could expect to reign for approximately 21 years in 1750, African rulers only governed for 10 years. What explains Europe's rise to political stability? From the late 15th century, Europe was slowly moving out of the Middle Ages and into the early modern period. It was a time of great change for many European countries. With the advent of the military revolution in the 16th and 17th century new radical changes in military technologies, strategies and tactics were introduced. European warfare now required massive funds to levy standing armies and substantial capital had to be invested in new powerful siege artilleries. To obtain resources needed to meet such requirements, monarchs gradually began to establish sophisticated systems of taxation, and to manage extraction, the development of complex administrative structures became necessary. The result was the emergence of modern states, and extraordinary political stability among European monarchs (Tilly, 1990; Finer, 1997; Ertman, 1997).

While Europe experienced its rise to great political stability, Africa was entering a significantly different institutional path. From the late 15 century and onwards, Africa increasingly experienced the rise of powerful kingdoms and empires (e.g. Reid, 2012). With development of centralized institutions, African rulers' length of reigns also started to improve. However, with the introduction of the slave trade in the 16th century many African polities saw a rising trend of political instability. Although the upper graph shows African rulers on average experienced increasingly lower duration of reigns from the 16th century, this development hides two opposite trends. In the early period of the slave trade, some polities experienced a drastic decline in stability whereas others rose to prominent, and some polities almost matched European monarchs in stability.

I examine these two historical trends in the lower graph of Figure 2. The graph compares ruler durations between African polities based on their vicinity of European slave ports. The grey line shows the 100-year moving average for ruler durations in African polities that reside within 500 kilometers of European slave ports whereas the dark line indicates the moving average for polities outside 500 kilometers of slave ports. Consistent with the historical narrative presented earlier, polities influenced by slave trading seem to experience an increase trend in stability in the early stages of the Atlantic trade. Polities located further away from the slave trade, on the other hand, underwent a trend of increasingly falling duration

of reigns. In 1500, polities outside European slave ports had ruler durations that were approximately two years higher than their counterparts close to slave ports. However, in 1665, at the peak of political stability, rulers influenced by slave trading on average reigned for 19 years while African sovereigns outside its influence only ruled around 10 years.

As the historical narrative suggested, one possible explanation may be that rulers near slave ports exchanged natural resources and slaves for European goods. Such goods were redistributed to loyal elites leading to productive ruler-elite relations and longer reigns. Polities outside the influence of the slave trade instead saw the emergence of political instability as rulers involved in trade with Europeans needed slaves, and thus initiated warfare with nearby polities.

However, with the Americas increased external demand for slave labor in the late 17th century, things began to change for rulers involved in the slave trade. From around 1680, rulers in close proximity to slave ports entered a different path of increasing political instability. Such rulers gradually found it difficult to fulfill the substantial demand for slaves. Instead, European merchants realized that local elites were ready to sell slave for guns and goods. Over time, elites utilized their newly won military prowess to challenge the power of rulers leading to political instability and fewer years on the throne.

5 Difference-in-Differences Results

5.1 Empirical Strategy

My main estimation strategy is a standard difference-in-differences design. I interact my indicator of proximity to European slave ports with a treatment period indicator that is equal to one after the 1680 because this was when slave demand rose drastically. I expect rulers to have shorter duration of reigns if they were situated in close vicinity of slave ports after this point in time.

My estimating equation is

$$duration_{it} = \alpha_p + \gamma_t + \beta_1 slaveport_i \times post_t + \beta_2 Z_i + \varepsilon_{it} \quad (1)$$

where i indexes African rulers and t denotes the year each ruler ascended to the throne. $duration_{it}$ is my dependent variable that measures the lengths of ruler tenure. β_1 is the quantity of interest. It measures the interaction effect between distance to the nearest European slave port and the post treatment period that equals zero for the period 1200-1679, while it takes on a value of one for the period 1680-1900.

β_2 represents a vector of control variables. It includes distance to the coastline, distance to the nearest river, average precipitation, median altitude, an indicator for desert areas, average caloric suitability and a measure of reliance on agriculture.¹⁰ Because these controls are time-invariant, I interact them with a time trend, which allows for differential effects across time.

In all my specifications, I also include α_p and γ_t , which capture polity and time fixed effects. It accounts for time-invariant confounders such as geography, institutional legacy and other historical factors as well as time shocks that affect all African polities.

5.2 Results

Table 1 presents the difference-in-differences estimates. Columns (1)-(3) show that African rulers after 1680 had statistically significant shorter reigns if they were situated in vicinity of European slave ports. The magnitude of the coefficient is also very stable across the specifications. Column (1) represents the most parsimonious way of estimating. In these columns, I only include polity and year fixed effects. The magnitude of the coefficient in column (1) suggests that increasing the distance to slave ports with 1000 kilometers increases lengths of ruler tenure with 1.4 years. Moreover, a one-standard-deviation increase in *Distance to slave ports* \times *post 1680* is associated with a 0.10 standard-deviation decrease in ruler duration.

In column (2), I include a covariate for distance to the nearest coastline interacted with a time trend to allow for differential impact over time. This is an important control as it capture the most obvious endogeneity of locations of slave ports, namely that they all are located close to the coast. The estimated coefficient drops a bit in magnitude but continues to be highly significant. The magnitude of the estimated effect in column (3) also remains almost unaffected by the inclusion of my baseline set of control variables.

¹⁰See the appendix for further motivation on the inclusion of each covariates as well as data sources.

Table 1: Difference-in-differences estimates

	Ruler duration (in years)		
	(1)	(2)	(3)
Distance to slave ports \times post 1680	1.393 *** (0.471)	1.214 *** (0.460)	1.213 ** (0.578)
Polity and year FE	Yes	Yes	Yes
Distance to coast \times time trend	No	Yes	Yes
Baseline controls \times time trend	No	No	Yes
Observations	2681	2681	2513

Note: Standard errors clustered by polity in parentheses.

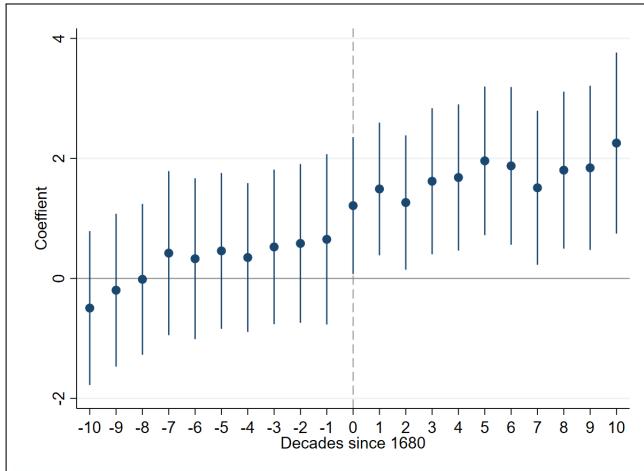
***, ** and * indicate significance at the 1%, 5% and 10% levels.

I experiment with the sensitive and robustness of my baseline results in the appendix. Instead, of utilizing a distance measure, I construct two indicators that equal one for African polities that reside within 500 and 1,000 kilometers of European slave ports. These cut-offs are chosen to capture areas from which slaves were brought to the coast, and hence the regions likely to be affected by the slave trade. The estimates in Nunn & Wantchekon (2011) show that the overwhelming majority of slave exports came from ethnic groups whose centroids were within 500-1,000 km of the coast. Table A1 and A2 document that African rulers after 1680 had lengths of ruler tenure that on average were 3-4 years shorter if they were situated in within 500 or 1,000 kilometers of slave ports.

My main explanatory variable measures influence from slave ports, but obviously, it says nothing about the actual number of slaves exported to the Americas. One may expect that rulers who had more slaves exported from their geographic area should have shorter reigns. Table A3 exploits data on exported slaves to the Americas. The data are taken from Nunn & Wantchekon (2011) who construct a measure on number of slaves taken from each ethnic group in precolonial Africa. I merge Nunn & Wantchekon's (2011) data on ethnic-level slave exports with location on African polities. The estimated coefficients indicate that rulers who exported more slaves after 1680 also have significantly lower ruler durations.

So far, I have assumed that the differential impact of proximity to slave ports occurs after 1680. I also provide flexible estimates in Figure 3. The figure shows the coefficients on distance to slave ports before and after the increase slave demand in 1680. There is a non-significant effect of *Distance to slave ports* prior

Figure 3: Flexible estimates



Note: The figure shows the coefficients on distance to slave ports before and after the increase slave demand in 1680. The gray vertical line illustrates a coefficient of 0. The grey dotted line shows the coefficients on distance to slave ports in 1680. The blue lines attached the dots illustrate the 0.05 significance level.

to 1680, suggesting that the parallel trends assumption underlining my difference-in-differences design may be plausible.

My baseline results included polity fixed effects in order to capture time-invariant confounders related to African polities. Although including polity fixed effects possibly remove unobservable factors at the polity-level, it is also possible to exploit ruler fixed effects, and thus only examine variation within rulers. Unobservable factors associated with each ruler, such as short-lived institutions that emerge under a particular ruler, can be accounted for. I exploit information on when rulers leave offices to construct an annual panel. I create an indicator that equals one when rulers leave office and zero otherwise. I then examine if African rulers in proximity to European slave port after 1680 also were more likely to exit office. Table A4 presents estimates that include ruler fixed effects. The coefficients confirm my baseline estimates and are highly significant.

A major concern in most empirical work is spatial correlation between units. Looking at Figure 1, this seem to be a valid concern. Most African polities and slave ports are often located in close-knit clusters, which definitely makes spatial clustering an issue. In Table A5, I report standard errors that allow

for general forms of spatial autocorrelation of the error term (Conley, 1999).¹¹ I experiment with three different cut-off values where observations are given zero weight: 50, 100 and 150 kilometers. Across all specifications, I find statistically significant results that support my baseline results.

6 IV Results

6.1 Empirical Strategy

My difference-in-differences results seem robust to various controls and specifications, however to causally interpret the estimates the parallel trends assumption has to be satisfied. In particular, we must assume that African rulers with and without influence from the slave trade followed a similar trend of political stability in a counter-factual world where the slave trade never occurred. While my flexible estimates suggest that the parallel trends assumption may be plausible, Figure 2 also show that rulers based on their proximity to slave ports appear to follow different paths. One reason why the parallel trends assumption could be violated is when omitted factors are related to both locations of ports and ruler duration, thus possibly driving trends in political instability.

To overcome this empirical issue, I make use of an instrumental variable (IV) approach. This requires an instrument that is strongly correlated with proximity to European slave ports, but uncorrelated with the error term, and only affects ruler durations through proximity to slave ports.

I instrument $Distance \text{ to } slave \text{ ports} \times post \text{ 1680}$ with $Distance \text{ to } American \text{ slave \text{ ports}} \times post \text{ 1680}$. The basic logic here is that African rulers are more likely to reside in vicinity of slave ports if they are closer to slave destinations in the Americas. The validity of the instrument rests on the assumption that slave locations in the Americas influenced the location of slave ports in Africa but that ports in Africa did not affect the particular destinations of slaves in the Americas. According to most historians, the Americas' external demand for slaves seem to have determined the location of African slave ports and not vice versa (Nunn, 2008, 160). For my instrument to produce unbiased estimates, distance to slave locations in the Americas therefore should only influence ruler durations through slave ports in Africa. African slave ports

¹¹To estimate regressions with Conley standard errors, I use the statistical package acreg (Colella et al., 2019).

were part of the extensive triangular trade, and ports in Africa were important nodal points between the Americas and Africa. It seems reasonable to assume that if slave locations in the Americas should have any effect on ruler durations, then it likely only works through locations of European slave ports in Africa. Moreover, if 1680 marked a drastic increase in slave exports, then distance to slave markets in the America should primarily have an impact on ports in Africa after 1680.

To construct my instrument, I follow Nunn (2008) and calculate each polity's distance to the closest major markets of the Atlantic slave trade. I use the nine largest importers of slave: Virginia, USA; Havana, Cuba; Haiti; Kingston, Jamaica; Dominica; Martinique; Guyana; Salvador, Brazil; and Rio de Janeiro, Brazil.

6.2 Results

I present the IV estimates in Table 2. Column (1) represents the most parsimonious specification, which only include polity and year fixed effects. In columns (2)-(3), I control for distance to the nearest coastline and my baseline set of covariates. All controls are interacted with a time trend to allow for differential effects across time.

I begin my analysis by examining the first stage relationship between distance to American slave markets and proximity to slave ports in Africa. The estimated effects are presented in panel B. The first stage coefficients confirm that distance to slave destinations in the America is a strong predictor of the locations of African slave ports. African rulers who are located close to slave ports are also more likely to be situated in vicinity of American slave ports. The Kleibergen-Paap F-statistics are larger than 10, indicating instrument strength and a relatively low propensity for bias at the second stage.

The second stage coefficient estimates are reported in panel A. The effects are all significant at the conventional level, and the magnitude of the coefficients are very similar to my OLS results, suggesting that little bias may have been present in my OLS estimates. According to the coefficient in column (3), increasing the distance to the nearest slave port with 1000 kilometers increases lengths of ruler tenure with around 1.3 years.

I examine the sensitive of my IV results in the appendix. In Table A6 and A7, I show that the con-

clusion of my IV estimates remain unchanged to my two additional indicators that equals one for rulers that reside within 500 and 1,000 kilometers of European slave ports. Similarly, Table A7 report estimates where I exploit ethnic-level data on exported slaves to the Americas. The estimated coefficients are identical to my previous OLS results.

Table 2: IV estimates

<i>Panel A: Second Stage</i>			
	Ruler duration (in years)		
	(1)	(2)	(3)
Distance to slave ports × post 1680	1.288** (0.543)	1.202** (0.533)	1.327** (0.584)
Polity and year FE	Yes	Yes	Yes
Distance to coast × time trend	No	Yes	Yes
Baseline controls × time trend	No	No	Yes
Kleibergen-Paap Wald rk F-statistic	53.908	64.992	100.756
Observations	2681	2681	2513

<i>Panel B: First Stage</i>			
	Distance to slave ports × post 1680		
	(1)	(2)	(3)
Distance to American slave ports × post 1680	0.672*** (0.0915)	0.667*** (0.0828)	0.656*** (0.0653)
Polity and year FE	Yes	Yes	Yes
Distance to coast × time trend	No	Yes	Yes
Baseline controls × time trend	No	No	Yes
Observations	2681	2681	2513

Note: Standard errors clustered by polity in parentheses.

***, ** and * indicate significance at the 1%, 5% and 10% levels.

My IV strategy rests on the assumption that the transatlantic slave trade is the only channel through which historical distance from American slave markets effect precolonial ruler duration. If this assumption is correct, then distance to slave destinations in America should not influence any other slave trades that existed in Africa. The African continent also experienced three other slave trades – the trans-Saharan, Red Sea and Indian Ocean slave trades – that were much older and predate the transatlantic slave trade. To access the validity of my instrument, I undertake a falsification test. I regress distance to American

slave ports on the number of exported slaves related to the trans-Saharan, Red Sea and Indian Ocean slave trades. The estimates coefficients are reported in Table A8. Across the three specifications, there is no statistically significant relationship between distance to slave markets in the Americas and the number of exported slaves related to the trans-Saharan, Red Sea and Indian Ocean slave trades in the post treatment period. These results lend additional credibility to my IV estimates by suggesting that my instrument picks up variation in the transatlantic slave trade that is exogenous to the other three slave trades that similarly affected Africa.

7 Mechanisms

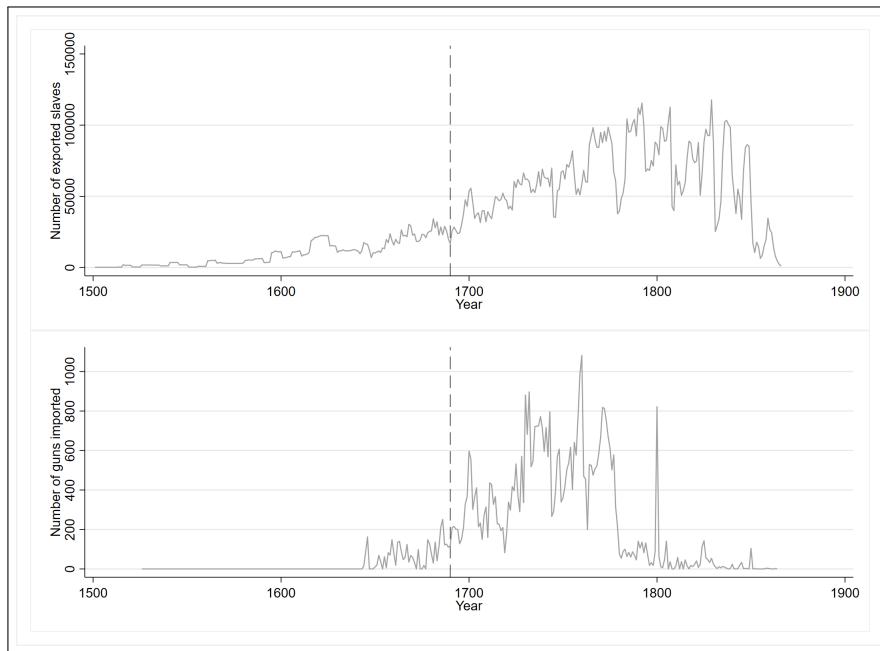
So far, I have documented that African rulers after 1680 had lengths of ruler tenure that were shorter if they resided close to slave ports. I now analyze the different channels through which proximity to slave ports may have influenced ruler durations.

7.1 Exported Slaves and Import of Guns

I previously argued that 1680 became a turning point in the slave trade. After 1680, the demand for African slaves rose dramatically. African rulers who enjoyed monopoly on slave trading were unable to fulfill the demand for slave labor, and European merchants instead reached out to local elites who were willing to exchange slaves for guns. Two empirical implications can be derived from my historical argument. First, a structural break in the trend of exported slaves and imported guns should occur around 1680. Second, exports of slaves should be able to explain the increasing import of guns. I examine both empirical implications in this section.

To explore if the period after 1680 also saw an increase in exported slaves and imported guns, I rely on the Trans-Atlantic slave trade database constructed by Eltis et al. (1999). The database provides voyage-level data on more than 34,000 slave voyages, including detail information on the number of slave carried, the year the ship departed from Africa and the primary port of slave purchases. I convert Eltis et al.'s (1999) raw data on voyages into an annual time series dataset that counts the total number of exported slaves and

Figure 4: Trends in Exported Slaves and Imported Guns



Note: The upper figure represents the trend the total number of exported slaves to the Americas in the period from 1500 to 1860. The lower graph indicates the historical development of the total number of imported guns to Africa. The dotted line is centered on the year 1680.

imported guns in each year. The trend in the number of exported slaves from Africa is presented in the upper graph in Figure 4. Consistent with the overall historical narrative, very few slaves were exported before the late 17 century, and the trend seems to grow substantially after 1680. The historical trend on the total number of guns imported to Africa is presented in lower graph in Figure 4. According to the Eltis et al.'s (1999) estimates, the first guns were shipped to Africa in 1644. The figure tells a story that seems to be consistent with my historical narrative. On average, very few guns reached the African shores in the period before the Americas' increased demand for slave labor while the trend of imported firearms appears to increase substantially in the period after 1680.

I now examine if there exists a structural break in 1680. A structural break occurs when a time series abruptly change at a particular point in time. A test for structural breaks can thus determine if significant changes in the data occur around 1680.

I examine my two time series datasets for structural breaks in 1680 with the following specification:

$$y_t = \beta_0 + \beta_1 D_t(\tau) + \beta_2 t + \beta_3 t D(\tau) + \varepsilon_t \quad (2)$$

where y_t is a measure either of exported slaves or imported guns. $D_t(\tau)$ is an indicator equal one if $t > \tau$ (i.e. for periods after 1680). t is a time trend. $tD(\tau)$ is an interaction measure of $D_t(\tau)$ and t . This specification mirrors Blaydes & Chaney (2013) who use it to calculate Quandt likelihood ratio (QLR) statistics for structural breaks in duration of reigns for medieval rulers in Europe and the Middle East.

I perform a Wald test that examines whether the coefficients in equation (2) vary over the known break date in 1680.¹² The Wald test indicates a statistically significant structural break in 1680 for both exported slaves (p-value=0.000) and imported guns (p-value= 0.000). I also experiment with different alternative specifications in the appendix. I show that the overall conclusion remain unaffected when I instead estimate an autoregressive model with three lags of the dependent variable.

Next, I turn to the second empirical implication of my argument, namely that export of slaves should explain import of guns. I utilize Eltis et al.'s (1999) data on slave voyages to construct two measures. The first counts the number of exported slaves on ships that sailed to the Americas. The second measures the number of imported guns slave ships carried to African shores. Because few slave voyages before 1680 carried guns,¹³ I only examine the relationship in the period after 1680.

The results are presented in Table 4. The unconditional relationship between exported slaves and the number of imported guns is shown in column (1). Exported slaves are as expected positively related to imported guns, and the estimated effect is highly significant. Various other unobservable factors associated with the places where slaves and guns were exchanged could possibly drive these findings. In column (2), I therefore include port and year fixed effects. The magnitude of the coefficient decreases a bit but remains significant, suggesting that either factors associated with ports where ships sailed from or particular time shocks seem to confound the relationship. I also experiment with two more demanding fixed effects strategies. Column (3) exploits variation within slave ships. Some ships may have been larger

¹²In particular, I use *estat sbknown*. See <https://www.stata.com/manuals14/tseststatsbknown.pdf> for more information on this stata command.

¹³For instance, only around 150 ships carried guns to Africa in the period before 1680.

Table 3: Slave exports and imports of guns

	Number of imported guns			
	(1)	(2)	(3)	(4)
Number of exported slaves	0.0207*** (0.00102)	0.0150*** (0.00347)	0.0111*** (0.000769)	0.0106*** (0.000931)
Year FE	No	Yes	Yes	Yes
Port FE	No	Yes	No	No
Ship FE	No	No	Yes	No
Capitan FE	No	No	No	Yes
Observations	5777	5657	5774	5737

Note: Standard errors clustered by fixed effect level in parentheses.

***, ** and * indicate significance at the 1%, 5% and 10% levels.

and thus possessing capacities to purchase more slaves. However, this does not seem explain my results. The coefficient in column (3) is almost unaffected by the inclusion of ship fixed effects. Certain captains may have had unique contacts with Africans or possessed abilities that made them able to acquire more slaves or import additional firearms. The estimated effect in column (4) continues to be significant when I exploit captain fixed effects.

7.2 Alternative Mechanism: State Formation

A prominent line of historical scholarship suggests that the slave trade also weaken state formation in Africa (e.g. Rodney, 1972; Miller, 1988; Manning, 1990; Lovejoy, 2000). The slave trade incentivized smaller groups of men to raid and kidnap people from other nearby villages in order to sell them to European merchants. This uncertain political environment dominated by small-scale violence made it difficult for polities to form into larger and more complex kingdoms.

If African rulers in vicinity of European slave ports developed weaker state institutions, then these rulers likely also experienced increased political instability. Various studies now demonstrate that strong and centralized state institutions are fundamental for political stability (e.g. Bueno de Mesquita et al., 2003; Svolik, 2012). Such state institutions may enable rulers to develop repressive capacities that increase the cost of staging a coup or launching a rebellion, thus producing longer and more stable reigns.

To measure centralized state institutions, I exploit the fact that Stewart (2006) reports titles of all rulers. In most organizations, whether these are political or not, titles are the result of a formal hierarchy. One example is the nobility of early modern Europe. Titles such as Dukes, Marquesses, Earls, Viscounts, and Barons are all clearly distinct from each other in terms of prestige and power. Similar arguments can be applied across different political entities. For example, macro political organizations, such as kingdoms and empires, are obviously more complex and centralized than chiefdoms and tribes. Following the logic that political titles can reveal how complex and centralized states institutions are, I construct a state index based on political titles. The index has four different categories: (1) chiefdoms; (2) provinces of kingdoms or empires; (3) kingdoms or sultanates; (4) and empires.¹⁴ My classification is to some extend similar to Diamond (1998) who distinguishes between four societal arrangements: bands, tribes, chiefdoms, and centralized states.

Table 4: The slave trade and state formation

	State index		Emperor		Chief	
	(1)	(2)	(3)	(4)	(5)	(6)
Distance to slave ports × post 1680	-0.0814 *** (0.0308)	-0.0480 (0.0359)	0.0124 (0.0149)	0.0285 (0.0261)	0.0101 (0.0132)	-0.00122 (0.0155)
Polity and year FE	Yes	Yes	Yes	Yes	Yes	Yes
Distance to coast × time trend	Yes	Yes	No	Yes	No	Yes
Baseline controls × time trend	No	Yes	No	Yes	No	Yes
Observations	2531	2406	2531	2406	2531	2406

Note: Standard errors clustered by polity in parentheses.

***, ** and * indicate significance at the 1%, 5% and 10% levels.

Table 5 reports difference-in-differences estimates with my state index as the primary outcome variable. Even columns includes polity and fixed effects while uneven columns represent estimates where I control for my vector of covariates. In columns (1)-(2), I examine the relationship between proximity to slave ports and state centralization using my index. Quite surprisingly, column (1) documents that African rulers after 1680 are associated with more centralized institutions if they are situated in close to slave ports. While this finding suggests, contrary to conventional wisdom, that the slave trade seems to

¹⁴See the appendix for further information of the political titles that make up each category.

have promoted state centralizing, the coefficient decreases substantially when I include my baseline set of control variables in column (2), indicating that the slave trade does not appear to have an effect on state centralization.

In columns (3)-(4), I replace my state index with the highest category in my index, namely empires. Although the estimated effects in both columns suggest that rulers after 1680 are more likely to be emperors if they are situated further away from slave ports, the coefficient never reaches significance at the conventional level. Columns (5)-(6) instead examine if proximity to European slave port are correlated with the lowest category in my state index, specifically chiefdoms. The coefficients in both columns are quite small in magnitude and like before they are insignificant. While most historians seem to agree that the slave trade was detrimental for state formation in precolonial Africa, my preliminary findings seem to indicate that the state trade had no adverse impact on state centralization.

8 Conclusion

Africa is strongly connected with its history of slavery. A burgeoning literature in economics and political sciences now documents how the transatlantic slave trade in Africa is associated with various historical and contemporary outcomes. However, one of the most noticeable consequences of the slave trade has been overlooked by the literature to date, namely its effect on Africa's unstable states. This is quite surprising given the vast amount of historical research that points to the slave trade as one of the main explanations of Africa's historical inability to develop stable states (Miller, 1988; Klein, 1990; Manning, 1990; Lovejoy, 2000).

In this paper, I leveraged data on over 2,500 precolonial African rulers in the period between 1200 and 1900 to examine the historical consequence of the slave trade on political instability. I exploited semi-exogenous time variation arising from one of the largest external shocks the African continent experienced before colonial rule: the abrupt increase in demand for African slaves in 1680. Using a difference-in-differences strategy, I provided new evidence that African rulers after 1680 had shorter reigns if they were situated in vicinity of slave ports. The results proved very robust to a host of exogenous controls, various

measures of the slave trade, different fixed effects strategies and an instrumental variable approach that uses exogenous variation in distance to slave markets in the Americas.

References

- Barry, B. (1998). *Senegambia and the atlantic slave trade*. Cambridge: Cambridge University Press.
- Bates, R. H. (1983). *Essays on the political economy of rural Africa*. Cambridge: Cambridge University Press.
- Blaydes, L., & Chaney, E. (2013). The feudal revolution and Europe's, rise: Political divergence of the Christian West and the Muslim world before 1500 CE. *American Political Science Review*, 107(1), 16–34.
- Bueno de Mesquita, B., Smith, A., Siverson, R. M., & Morrow, J. D. (2003). *The logic of political survival*. Cambridge: MIT Press.
- Colella, F., Lalivé, R., Sakalli, S., & Thoenig, M. (2019). “*inference with arbitrary clustering*” (Tech. Rep.). IZA Working Paper 12584.
- Conley, T. (1999). Gmm estimation with cross sectional dependence. *Journal of Econometrics*, 92(1), 1–45.
- Cooper, F. (2002). *Africa since 1940: The past of the present*. Cambridge: Cambridge University Press.
- Dalton, J. T., & Leung, T. C. (2014). Why is polygyny more prevalent in western africa? an african slave trade perspective. *Economic Development and Cultural Change*, 62(4), 599–632.
- Davidson, B. (1961). *Black mother: The years of the african slave trade*. Boston: Little Brown and Company.
- Diamond, J. M. (1998). *Guns, germs, and steel: the fates of human societies*. New York: W. W. Norton & Co.
- Eltis, D. (2001). The volume and structure of the transatlantic slave trade: A reassessment. *The William and Mary quarterly*, 58, 17-46.
- Eltis, D., Behrendt, S. D., Richardson, D., & Klein, H. S. (1999). *The trans-atlantic slave trade: a database on cd-rom*. Cambridge: Cambridge University Press.
- Eltis, D., & Richardson, D. (2004). Prices of african slaves newly arrived in the americas, 1673–1865: New evidence on long-run trends and regional differentials. In D. Eltis, F. D. Lewis, & K. L. Sokoloff (Eds.), *Slavery in the development of the americas* (p. 181–218). Cambridge University Press.
- Ertman, T. (1997). *Birth of the leviathan: Building states and regimes in medieval and early modern europe*. Cambridge: Cambridge University Press.

- Fenske, J. (2013). Does land abundance explain African institutions? *The Economic Journal*, 123(573), 1363–1390.
- Fenske, J., & Kala, N. (2017). 1807: Economic shocks, conflict and the slave trade. *Journal of Development Economics*, 126, 66–76.
- Finer, S. E. (1997). *The history of government from the earliest times*. Oxford: Oxford University Press.
- Gennaioli, N., & Rainer, I. (2007). The modern impact of precolonial centralization in Africa. *Journal of Economic Growth*, 12(3), 185–234.
- Hawthorne, W. (2003). *Planting rice and harvesting slaves: Transformations along the guineabissau coast, 1400–1900*. Portsmouth: Heinemann.
- Herbst, J. (2000). *States and power in Africa: Comparative lessons in authority and control*. Princeton: Princeton University Press.
- Hilton, A. (1985). *The kingdom of kongo*. Oxford: Oxford University Press.
- Hopkins, A. (1973). *An economic history of west africa*. New York: Columbia University Press.
- Iliffe, J. (2007). *Africans: An economic history of a continent*. Cambridge: Cambridge University Press.
- Inikori, J. E. (1977). The import of firearms into west africa 1750–1807: a quantitative analysis. *The Journal of African History*, 18(3), 339–368.
- Klein, M. A. (1990). The impact of the atlantic slave trade on the societies of the western sudan. *Social Science History*, 14(2), 231–253.
- Kokkonen, A., & Sundell, A. (2014). Delivering stability—primogeniture and autocratic survival in european monarchies 1000–1800. *American Political Science Review*, 108(2), 438–453.
- Law, R. (1991). *The slave coast of west africa, 1550–1750: The impact of the atlantic slave trade on an african society*. Oxford: Oxford University Press.
- Lovejoy, P. E. (2000). *Transformations in slavery: A history of slavery in africa, second edition*. Cambridge: Cambridge University Press.
- Mamdani, M. (1996). *Citizen and subject: Contemporary Africa and the legacy of late colonialism*. Princeton: Princeton University Press.
- Manning, P. (1983). Contours of slavery and social change in africa. *The American Historical Review*,

- 88(4), 835–857.
- Manning, P. (1990). *Slavery and african life: Occidental, oriental, and african slave trades*. Cambridge: Cambridge University Press.
- Manning, P. (2006). Slavery and slave trade in west africa 1450–1930. In E. K. Akyeampong (Ed.), *Themes in west africa's history* (p. 99–117). Boydell and Brewer.
- Michalopoulos, S., & Papaioannou, E. (2013). Pre-colonial ethnic institutions and contemporary African development. *Econometrica*, 81(1), 113–152.
- Michalopoulos, S., & Papaioannou, E. (2020). Historical legacies and african development. *Journal of Economic Literature*, 58(1), 53–128.
- Miller, J. C. (1988). *Way of death: Merchant capitalism and the angolan slave trade, 1730–1830*. Princeton, NJ: Princeton University Press.
- Müller-Crepon, C. (2020). Continuity or change? (in)direct rule in british and french colonial africa. *International Organization*, 74(4), 707–741.
- Murdock, G. P. (1967). *Ethnographic atlas*. Pittsburgh: University of Pittsburgh Press.
- Northrup, D. (2014). *Africa's discovery of europe: 1450–1850*. Oxford: Oxford University Press.
- Nunn, N. (2008). The long term effects of Africa's slave trades. *Quarterly Journal of Economics*, 123(1), 139–176.
- Nunn, N., & Wantchekon, L. (2011). The slave trade and the origins of mistrust in Africa. *American Economic Review*, 101(7), 3221–52.
- Obikili, N. (2016). The trans-atlantic slave trade and local political fragmentation in africa. *The Economic History Review*, 69(4), 1157–1177.
- Reid, R. (2012). *Warfare in african history*. Cambridge: Cambridge University Press.
- Richards, W. A. (1980). The import of firearms into west africa in the eighteenth century. *The Journal of African History*, 21(1), 43–59.
- Rodney, W. (1972). *How europe underdeveloped africa*. London: Bogle-L'Uverture Publications.
- Stewart, J. (2006). *African states and rulers*. Jefferson, North Carolina: McFarland and Company.
- Svolik, M. W. (2012). *The politics of authoritarian rule*. Cambridge: Cambridge University Press.

- Thomas, H. (1997). *The slave trade: the story of the atlantic slave trade, 1440–1870*. New Jersey: Simon & Schuster.
- Tilly, C. (1990). *Coercion, capital, and european states, ad 990–1992*. Hoboken, New Jersey: Basil Blackwell.
- Vansina, J. (1990). *Paths in the rainforests*. Wisconsin: University of Wisconsin Press.
- Wang, Y. (2018). *Sons and lovers: Political stability in china and europe before the great divergence*.
- Whatley, W. (2014). The transatlantic slave trade and the evolution of political authority in west africa.
In E. Akyeampong, R. H. Bates, N. Nunn, & J. Robinson (Eds.), *Africa's development in historical perspective* (p. 460–488). Cambridge University Press.
- Whatley, W. (2018). The gun-slave hypothesis and the 18th century british slave trade. *Explorations in Economic History*, 67, 80–104.
- Whatley, W., & Gillezeau, R. (2011). The impact of the transatlantic slave trade on ethnic stratification in africa. *American Economic Review*, 101(3), 571–76.
- Yoder, J. C. (1974). Fly and elephant parties: Political polarization in dahomey, 1840–1870. *The Journal of African History*, 15(3), 417–432.
- Young, C. (1994). *The African colonial state in comparative perspective*. New Haven: Yale University Press.
- Zhang, Y., Xu, Z. P., & Kibriya, S. (2021). The long-term effects of the slave trade on political violence in sub-saharan africa. *Journal of Comparative Economics*, 49(3), 776–800.

Appendix

The Transatlantic Slave Trade and Political Instability in
African Polities, 1200-1900

October 21, 2021

A Robustness Check from Main Text

Table A1: Alternative measure: Slave port within 500 km

	Ruler duration (in years)		
	(1)	(2)	(3)
Slave port within 500 km × post 1680	-2.367 (1.738)	-4.199** (1.662)	-4.436** (2.038)
Polity and year FE	Yes	Yes	Yes
Distance to coast × time trend	No	Yes	Yes
Baseline controls × time trend	No	No	Yes
Observations	2681	2681	2513

Note: Standard errors clustered by polity in parentheses.

***, ** and * indicate significance at the 1%, 5% and 10% levels.

Table A2: Alternative measure: Slave port within 1,000 km

	Ruler duration (in years)		
	(1)	(2)	(3)
Slave port within 1,000 km × post 1680	-2.761* (1.549)	-2.881* (1.559)	-3.226* (1.893)
Polity and year FE	Yes	Yes	Yes
Distance to coast × time trend	No	Yes	Yes
Baseline controls × time trend	No	No	Yes
Observations	2681	2681	2513

Note: Standard errors clustered by polity in parentheses.

***, ** and * indicate significance at the 1%, 5% and 10% levels.

Table A3: Alternative measure: Exported slaves

	Ruler duration (in years)		
	(1)	(2)	(3)
Exported slaves (ln) \times post 1680	-0.342* (0.182)	-0.349** (0.177)	-0.459** (0.186)
Polity and year FE	Yes	Yes	Yes
Distance to coast \times time trend	No	Yes	Yes
Baseline controls \times time trend	No	No	Yes
Observations	2552	2552	2513

Note: Standard errors clustered by polity in parentheses.

***, ** and * indicate significance at the 1%, 5% and 10% levels.

Table A4: Ruler fixed effects

	Death/deposition of ruler		
	(1)	(2)	(3)
Distance to slave ports \times post 1680	-0.0238** (0.0113)	-0.0244** (0.0106)	-0.0280** (0.0119)
Ruler and year FE	Yes	Yes	Yes
Distance to coast \times time trend	No	Yes	Yes
Baseline controls \times time trend	No	No	Yes
Observations	30826	30826	28960

Note: Standard errors clustered by ruler in parentheses.

***, ** and * indicate significance at the 1%, 5% and 10% levels.

Table A5: Conley standard errors

	Ruler duration (in years)		
	(1)	(2)	(3)
Distance to slave ports \times post 1680	1.072** (0.503)	1.072** (0.514)	1.034** (0.498)
Polity and year FE	Yes	Yes	Yes
Distance to coast \times time trend	Yes	Yes	Yes
Baseline controls \times time trend	Yes	Yes	Yes
Cut-off value	50	100	150
Observations	2270	2270	2513

Note: Standard errors clustered by polity in parentheses.

***, ** and * indicate significance at the 1%, 5% and 10% levels.

Table A6: IV estimates: Slave port within 500 km

	Ruler duration (in years)		
	(1)	(2)	(3)
Slave port within 500 km × post 1680	-4.707* (2.460)	-4.176** (1.951)	-4.616** (2.041)
Polity and year FE	Yes	Yes	Yes
Distance to coast × time trend	No	Yes	Yes
Baseline controls × time trend	No	No	Yes
Kleibergen-Paap Wald rk F-statistic	30.834	79.449	89.145
Observations	2681	2681	2513

Note: Standard errors clustered by polity in parentheses.

***, ** and * indicate significance at the 1%, 5% and 10% levels.

Table A7: IV estimates: Slave port within 1,000 km

	Ruler duration (in years)		
	(1)	(2)	(3)
Slave port within 1,000 km × post 1680	-3.563** (1.730)	-3.278** (1.540)	-3.995** (1.750)
Polity and year FE	Yes	Yes	Yes
Distance to coast × time trend	No	Yes	Yes
Baseline controls × time trend	No	No	Yes
Kleibergen-Paap Wald rk F-statistic	64.821	77.009	97.106
Observations	2681	2681	2513

Note: Standard errors clustered by polity in parentheses.

***, ** and * indicate significance at the 1%, 5% and 10% levels.

Table A8: IV estimates: Exported slaves

	Ruler duration (in years)		
	(1)	(2)	(3)
Exported slaves (\ln) \times post 1680	-0.225* (0.126)	-0.197* (0.113)	-0.285** (0.124)
Polity and year FE	Yes	Yes	Yes
Distance to coast \times time trend	No	Yes	Yes
Baseline controls \times time trend	No	No	Yes
Kleibergen-Paap Wald rk F-statistic	95.051	107.276	170.264
Observations	2552	2552	2513

Note: Standard errors clustered by polity in parentheses.

***, ** and * indicate significance at the 1%, 5% and 10% levels.

Table A9: Predicting exported slaves related to the trans-Saharan, Red Sea and Indian Ocean slave trades

	Exported slaves (\ln) \times post 1680		
	(1)	(2)	(3)
Distance to American slave ports \times post 1680	0.123 (0.154)	0.138 (0.149)	0.110 (0.133)
Polity and year FE	Yes	Yes	Yes
Distance to coast \times time trend	No	Yes	Yes
Baseline controls \times time trend	No	No	Yes
Observations	2552	2552	2513

Note: Standard errors clustered by polity in parentheses.

***, ** and * indicate significance at the 1%, 5% and 10% levels.