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Warfare in African history

James Fenske

University of Oxford

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Outline
Motivation

Introduction

Question

- Is warfare in African history different?

Motivation

- Africa's conflicts have historical roots. Historical conflict and artificial boundaries have increased the prevalence of conflict (Besley and Reynal-Querol, 2012; Michalopoulos and Papaioannou, 2011). This may differ from the long-run causes of conflict elsewhere.

- The past helps us understand the causes of conflict. For example, looking at historical conflicts helps us understand how the relationship between economic shocks and conflict varies with institutions, technology, and culture (Dell, 2012; Jia, 2014; Kung and Ma, 2012).

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In this lecture

- I describe two recent and successful papers in economics that consider warfare in African history.
- I describe one recent paper of my own on warfare in African history.

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A puzzle

- In Europe, "war made the state, and the state made war" (Tilly).
    - Dincecco and Prado (2012): History of conflict ⇒ Modern state capacity ⇒ Modern GDP.
    - Gennaioli and Voth (2012): War ⇒ state capacity only when the cost of war is high.
- In Africa... ???
    - Herbst (1990, 2000): Wars in Europe increased tax capacity and nationalism. Modern African states have faced few external threats. Internal threats do not build state capacity. Pre-colonial states fought over people, not territory.
    - Besley and Reynal-Querol (forthcoming): The locations of African conflicts have been persistent over the long run.
    - Consequences of the slave trade: Poverty; guns for slaves; mistrust; ethnic stratification; polygamy; low state capacity; low literacy; undemocratic traditional authority.

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Persistence of conflict

Source: Dincecco, Fenske and Onorato

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Conflict and state capacity

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Conflict and growth

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Overview

The Legacy of Historical Conflict Evidence from Africa[*]

Timothy Besley
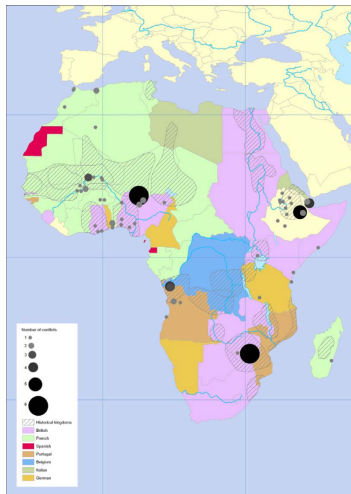LSE and CIFAR

Marta Reynal-Querol
Universitat Pompeu Fabra-ICREA.

October 10, 2013

Abstract

This paper exploits variation between and within countries to examine the legacy of recorded conflicts in Africa in the pre-colonial period between 1400 and 1700. There are three main findings. First, we show that historical conflict is correlated with a greater prevalence of post-colonial conflict. Second, historical conflict is correlated with lower levels of trust, a stronger sense of ethnic identity and a weaker sense of national identity across countries. Third, historical conflict is negatively correlated with subsequent patterns of development looking at the pattern across grid-cells within countries.

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Reasons?

- "The most plausible explanation of the results is that historical conflict weakens trust, encourages ethnic identification and weakens a sense of national identity."

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Persistence of conflict: Countries

TABLE 2:
Political Violence

Dependent variable	(1) Civil war incidence	(2) Civil war incidence	(3) Purges	(4) Purges	(5) Conflict (ordered variable)	(6) Conflict (ordered variable)	(7) Civil war incidence	(8) Purges	(9) Conflict (Ordered variable)
War prevalence 1400-1700	0.12*** (0.05)	0.13** (0.06)	0.002*** (0.0005)	0.002*** (0.00)	0.07*** (0.03)	0.07* (0.04)	0.10** (0.05)	0.002*** (0.0005)	0.07* (0.04)
Other controls		Yes		Yes		Yes	Yes	Yes	Yes
Slave exports							0.86*** (0.32)	0.002 (0.003)	1.08* (0.63)
Population Density in 1400							1.07 (1.23)	0.0005 (0.008)	1.07 (1.12)
Colonial and region dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	49	47	49	48	49	48	47	47	47
R²	0.4211	0.7843	0.4800	0.4847			0.8440	0.9132	
Pseudo-R²					0.1419	0.1699			0.6627

Notes: Robust standard errors in parentheses (*** 1% significant, ** 5% significant, * 10% significant). Sample is all African countries for which data is available. Civil war incidence is the number of years that the country has been in civil war since independence. War prevalence 1400-1700 is the number of years in which the country was involved in an historical conflict. Historical conflicts which happened the same years but in different regions are counted separately. Other controls are: GDP per capita in 1970, latitude, longitude, minimum rainfall, maximum humidity, low temperature, the log of the length of the coastline, a dummy for whether a country is an island, regional variables, measures of natural resource abundance, legal origin, ethnic polarization, proportion of the population that is Muslim, a dummy for yellow fever, and the ruggedness of the terrain. From columns (7) through (9) we include slave trade variable from Nunn (2008) along with population density in 1400 from Nunn and Puga (2012).

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Persistence of conflict: Mechanisms

TABLE 4:

Trust and Identity

Dependent variable	(1) Inter group	(2) Ethnic Identity	(3) National Identity	(4) Inter group	(5) Ethnic Identity	(6) National Identity
War prevalence 1400-1700	-0.01*** (0.004)	0.001* (0.0007)	-0.02*** (0.002)	-0.02*** (0.005)	0.002** (0.001)	-0.02*** (0.002)
Civil war prevalence				-0.01 (0.01)	0.003 (0.002)	-0.0001 (0.007)
Colonial dummies	Yes	Yes	Yes	yes	Yes	Yes
Observations	17419	17564	17564	17419	17564	17564
R-squared	0.1095	0.0417	0.1385	0.1095	0.0417	0.1385

Notes: Robust standard errors clusterd by village in parentheses (* 1% significant, ** 5% significant, * 10% significant). The dependent variable are individual responses to trust, ethnic identity and national identity from the Afrobarometer. Regressions are individual level and control for age, age squared, gender, education, occupation, religion, living conditions, district level ethnicity. We also include all of the country controls used in Tables 1 and 2. War prevalence 1400-1700 is the number of years in which the country was involved in an historical conflict. Historical conflicts which happened the same years but in different regions are counted separately. Civil war prevalence is the number of years that the country has been in civil war since independence (the dependent variable used in Table 2).

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Persistence of conflict: Within countries

TABLE 5:

Conflict and Light Density in Grid Cells: Core Results

	(1)	(2)	(3)	(4)
Dependent variable	Conflict 1997-2010	Conflict 1997-2010	Log of light density in 2007	Log of light density in 2007
Historical conflict in grid	0.15***	0.10***	-0.08**	-0.08**
	(0.04)	(0.04) (0.04)	(0.03)	(0.03)(0.03)
lpopdensity	0.08***	0.09***	0.06***	0.06***
	(0.01)	(0.02)(0.005)	(0.01)	(0.02)(0.005)
Geographic and climate controls		Yes		Yes
Country dummies	Yes	Yes	Yes	Yes
Observations	3496	3378	3388	3282
R-squared	0.3942	0.4478	0.3844	0.4151

Notes: Robust standard errors clustered by country in parentheses (*** 1% significant, ** 5% significant, * 10% significant). Variable descriptions are explained in text. The dependent variable is equal to 1 if there has been at least one conflict in the cell according to ACLED during the period 1997-2010. Log of light density in 2007 is the natural log of the average luminosity at night per km2. Historical conflict in grid is a dummy variable which is equal to one if there was a conflict in the grid cell between 1400 and 1700. Geographical and climate controls are: distance to coast, elevation, ruggedness, average temperature and average precipitation, and area from the Yale University Geographically Base Economic Dataset (G-econ). All columns include country dummies and log population density from G-econ. The alternative standard errors on the right hand side in columns (2) and (4) adjust the standard errors for spatial correlation using the GMM method of Conley (1999).

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Overview

The Long-Run Effects of the Scramble for Africa[*]

Stelios Michalopoulos
Brown University and NBER

Elias Papaioannou
London Business School, NBER and CEPR

September 28, 2013

Abstract

We examine the long-run consequences of a neglected aspect of colonization, the artificial drawing of borders during the Scramble for Africa and uncover the following empirical regularities. First, apart from the land mass and water area, no other pre-colonial trait predicts a group's partitioning. Second, using georeferenced data on conflict we show that battles, violence against civilians and territorial changes are concentrated in the historical homeland of partitioned ethnicities. Third, we show that individuals identifying with split groups are on average poorer and less educated. The uncovered evidence brings in the foreground the violent repercussions of ethnic partitioning.

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Reasons?

- Irredentism, secession, and autonomy.
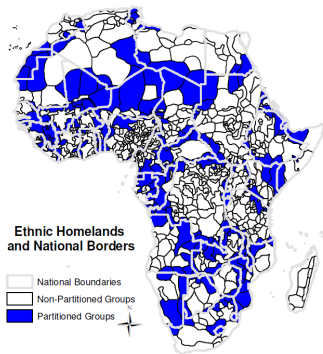- Spillovers (Shelter-Seeking and Cross-Border Migration).

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Data: Partition

Figure **1a**

Figure **1b**

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Data: Conflict

Figure **2a**

Figure **2b**

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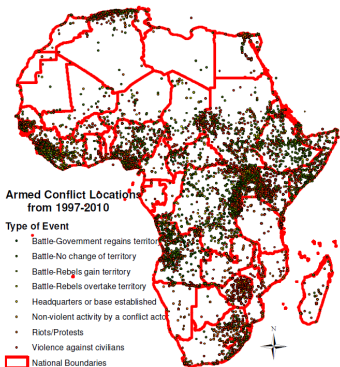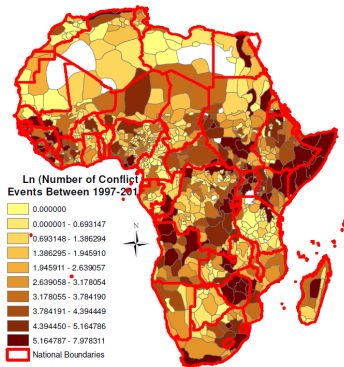
Are borders artificial?

Panel A: Geographical, Ecological and Natural Resources Features

	SPLIT (1)	FRAC (2)	SPLIT (3)	FRAC (4)	SPLIT (5)	FRAC (6)	SPLIT (7)	FRAC (8)
Land Area under Water	0.3219*** (0.0955)	0.0613*** (0.0125)	0.3891*** (0.1012)	0.0683*** (0.0117)	0.3449*** (0.0953)	0.0670*** (0.0122)	0.3352*** (0.0998)	0.0623*** (0.0134)
Land Area	0.0869 (0.0567)	0.0149* (0.0080)	0.1051* (0.0600)	0.0171** (0.0086)	0.0938 (0.0583)	0.0167** (0.0084)	0.0697 (0.0542)	0.0131* (0.0071)
Elevation			-0.0623 (0.1834)	-0.0209 (0.0293)				
St. Dev. Elevation			-0.0001 (0.0006)	0.0000 (0.0001)				
Suitability for Agriculture			0.4494 (0.3328)	0.0621 (0.0491)				
St. Dev. Suit. Agricult.			0.8556 (0.7386)	0.0672 (0.0859)				
Malaria Stability Index					0.1250 (0.2297)	0.0292 (0.0409)		
Distance to the Coast					-0.0001 (0.0002)	0.0000 (0.0000)		
Diamond Mine Indicator							0.1626 (0.1802)	0.018 (0.0287)
Oil Indicator							0.0081 (0.1696)	0.0026 (0.0351)
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R-squared	0.050	_	0.057	_	0.051	_	0.051	_
Adjusted R-squared	_	0.082	_	0.090	_	0.089	_	0.083
Observations	826	826	826	826	826	826	826	826

Table 2 - Panel A reports probit marginal effects (in odd-numbered columns) and OLS estimates (in even-numbered columns) associating ethnic partitioning with geographical, ecological and natural resource variables. In odd-numbered specifications, the dependent variable is an indicator that equals one when at least 10% of the historical ethnic homeland (as portrayed in Murdock's (1959) Ethnolinguistic map) falls to more than one contemporary countries. In even-numbered columns, the dependent variable is a continuous index of ethnic partitioning that reflects the probability that a randomly chosen pixel of the historical homeland of an ethnic group falls into a different country. All specifications include a set of region fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Standard errors reported in parentheses are adjusted for double clustering at the country-dimension and the ethno-linguistic family dimension. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

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Falsification exercise 1

Panel B: Pre-colonial Conflict

	ML SPLIT (1)	OLS FRAC (3)	ML SPLIT (3)	OLS FRAC (4)	ML SPLIT (5)	OLS FRAC (6)	ML SPLIT (7)	OLS FRAC (8)
Pre-colonial Conflict Indicator	-0.2320 (0.2531)	-0.0386 (0.0264)						
Distance to Pre-colonial Conflict			-0.1414 (0.2044)	-0.0290 (0.0321)				
Slave Trades Indicator					0.0410 (0.1131)	0.0061 (0.0162)		
Log Number of Slaves (normalized by land area)							0.0225 (0.0244)	0.0079 (0.0080)
Land Area under Water	0.3282*** (0.0937)	0.0621*** (0.0125)	0.3217*** (0.0972)	0.061*** (0.0130)	0.3246*** (0.0963)	0.0616*** (0.0126)	0.3298*** (0.0957)	0.1194*** (0.0250)
Land Area	0.0934 (0.0157)	0.0160*** (0.0084)	0.0883 (0.0560)	0.0151* (0.0080)	0.084 (0.0559)	0.0144* (0.0080)	0.0835 (0.0559)	0.0264 (0.0162)
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R-squared	0.051	—	0.05	—	0.05	—	0.051	—
Adjusted R-squared	—	0.075	—	0.085	—	0.083	—	0.064
Observations	826	826	826	826	826	826	826	826

Table 2 - Panel B reports probit marginal effects (in odd-numbered columns) and OLS estimates (in even-numbered columns) associating ethnic partitioning with proxy measures of pre-colonial conflict. In odd-numbered specifications, the dependent variable is an indicator that equals one when at least 10% of the historical ethnic homeland (as portrayed in Murdock's (1959) Ethnolinguistic map) falls to more than one contemporary countries. In even-numbered columns, the dependent variable is a continuous index of ethnic partitioning that reflects the probability that a randomly chosen pixel of the historical homeland of an ethnic group falls into a different country. All specifications include a set of region fixed effects (constants not reported). In columns (1)-(4) we use data on pre-colonial conflict (in the period 1400-1700) from Besley and Reynal-Querol (2012) and Brecke (1999). In columns (5)-(8) we use data on enslavement during the African slave trades from Nunn (2008) and Nunn and Watcekon (2011). The Data Appendix gives detailed variable definitions and data sources. Standard errors reported in parentheses are adjusted for double clustering at the country-dimension and the ethno-linguistic family dimension. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

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Falsification exercise 2

Panel C: Pre-colonial Statehood & Development

	ML SPLIT (1)	OLS FRAC (2)	ML SPLIT (3)	OLS FRAC (4)	ML SPLIT (5)	OLS FRAC (6)	ML SPLIT (7)	OLS FRAC (8)
Pre-colonial Kingdom/Empire	0.1233 (0.1317)	0.0178 (0.0193)						
Distance to Pre-colonial Kingdom/Empire			-0.0043 (0.3176)	-0.0092 (0.0409)				
Major City in 1400AD					0.0547 (0.2080)	-0.0042 (0.0344)		
Distance to Explorer's Routes							-0.0004 (0.0003)	0.0000 (0.0000)
Land Area under Water	0.3053*** (0.0988)	0.0590*** (0.0126)	0.3217*** (0.0949)	0.0608*** (0.0120)	0.3210*** (0.0959)	0.0613*** (0.0124)	0.3162*** (0.0980)	0.0605*** (0.0130)
Land Area	0.0788 (0.0582)	0.0135 (0.0086)	0.0868 (0.0580)	0.0147* (0.0085)	0.0858 (0.0564)	0.0149* (0.0079)	0.0817 (0.0571)	0.0142* (0.0081)
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R-squared	0.051	—	0.05	—	0.050	—	0.053	—
Adjusted R-squared	—	0.084	—	0.083	—	0.082	—	0.085
Observations	826	826	826	826	826	826	826	826

Table 2 - Panel C reports probit marginal effects (in odd-numbered columns) and OLS estimates (in even-numbered columns) associating ethnic partitioning with geographical, ecological and natural resource variables. In odd-numbered specifications, the dependent variable is an indicator that equals one when at least 10% of the historical ethnic homeland (as portrayed in Murdock's (1959) Ethnolinguistic map) falls to more than one contemporary countries. In even-numbered columns, the dependent variable is a continuous index of ethnic partitioning that reflects the probability that a randomly chosen pixel of the historical homeland of an ethnic group falls into a different country. All specifications include a set of region fixed effects (constants not reported). Data on pre-colonial statehood (large kingdoms and empires) are taken from Besley and Reynal-Querol (2012) and O' Brien (1999). Data on major cities before the slave trades (in 1400) come from Chandler (1987). Data on the principal European explorer's routes come from Nunn (2009). The Data Appendix gives detailed variable definitions and data sources. Standard errors reported in parentheses are adjusted for double clustering at the country-dimension and the ethno-linguistic family dimension. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

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Main result

Table 4: Ethnic Partitioning and Civil Conflict
Country-Fixed-Effects Estimates

	All Ethnicity-Country Homelands						Ethnicity-Country Homelands Close to the National Border					
	All Observations				Excl. Outliers	Excl. Capitals	All Observations				Excl. Outliers	Excl. Capitals
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
SPLIT (Partitioning)	0.4929***	0.4748***	0.6731***	0.6185***	0.6284***	0.6171***	1.0208***	0.8465***	0.9258***	0.8502***	0.8502***	0.8388***
Double-clustered s.e.	(0.1559)	(0.2073)	(0.1977)	(0.1876)	(0.1876)	(0.1829)	(0.1767)	(0.3061)	(0.3143)	(0.3145)	(0.3140)	(0.3154)
Log Likelihood	-3942.45	-3708.6	-3615.94	-3603.19	-3498.16	-3340.02	-1556.06	-1419.28	-1393.15	-1384.94	-1377.37	-1322.22
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Location Controls	No	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Geographic Controls	No	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes
Observations	1182	1182	1182	1182	1170	1139	576	576	576	576	575	565

The table reports Negative Binomial Maximum Likelihood (ML) estimates, associating civil conflict incidents with ethnic partitioning at the country-ethnicity homeland level. The dependent variable is the total number of civil conflict incidents at each ethnic homeland within a country over the period 1997-2010. SPLIT is an indicator variable that identifies partitioned ethnicities as those with at least 10% of the historical homeland falling into more than one contemporary country. The specifications in columns (2)-(6) and (7)-(12) include country fixed effects (constants not reported). The specifications in columns (7)-(12) focus on country-ethnicity areas close to the national border (using as a cutoff the median distance from the centroid of each ethnicity-country homeland to the national border; 62 kilometers). The specifications in columns (5) and (11) exclude country-ethnic homelands where the dependent variable exceeds the 99th percentile. The specifications in columns (6) and (12) exclude country-ethnic homelands where capital cities fall. The set of simple controls includes the log of land area, the log of (1 + land area under water) (lakes, rivers, and other streams), and the log of population in 1960. The set of location controls includes the distance of the centroid of each country-ethnic homeland from the respective capital, from the sea coast, from the national border, and an indicator that takes on the value of one if a capital city falls in the homeland of an ethnic group within a country. The set of geographic controls includes an index of land suitability for agriculture, mean elevation, a malaria stability index, a diamond mine indicator, and an oil field indicator. The Data Appendix gives detailed variable definitions and data sources. The table reports in parentheses double-clustered standard errors at the country and the ethno-linguistic family dimensions. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

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Robustness

- Disaggregated measures of civil conflict.
- OLS.
- Lat/Long polynomial, ethnic family fixed effects.
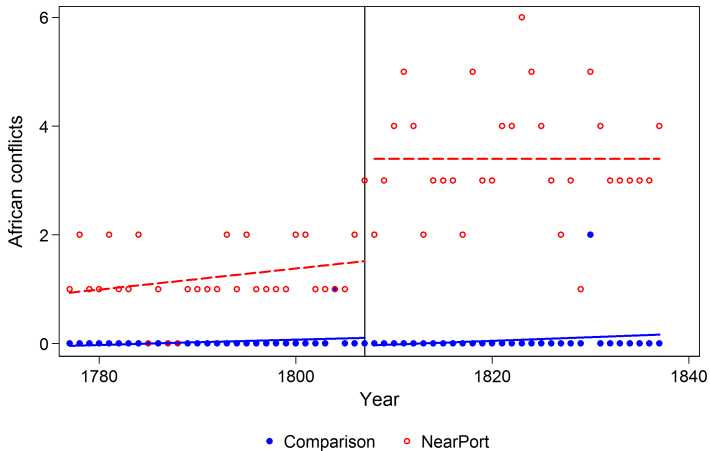- Conditioning on economic development.

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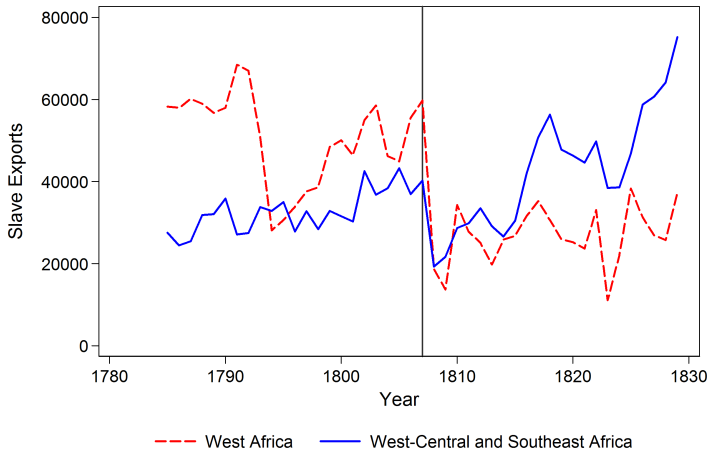Main results
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What Namrata and I do

- We geo-code historical conflict data from Brecke (1999).
- We divide Africa into a "NearPort" region that was involved in the slave trade, and a "Comparison" region that was not.
- We show that there was a discontinuous increase in the prevalence of conflict between Africans in the NearPort region after 1807, relative to the Comparison region, which was sustained for roughly three decades.
- We show that the sharp increase in conflict occurred in both West Africa (where the slave trade declined) and West-Central/Southeast Africa (which dominated the last half-century of the slave trade).
- We show that our results are robust to several different measures of "NearPort," to changes in the time window around 1807, that 1807 did not increase conflicts with non-Africans, and that we can only find a break around 1807.
- We show that areas that saw an increase in slave exports after 1807 experience more conflict today.

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Main Result

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The shock of 1807

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Specification

$AfricanConflictIncidence_{it} =$

$$\beta_0 + \beta_1 Post_t \times NearPort_i + \beta_2 NearPort_i + \beta_3 Post_t$$
$$+ \beta_4 Year_t + \epsilon_{it} \tag{1}$$
$$+ \beta_5 Year_t \times NearPort_i \tag{2}$$
$$+ \beta_6 Post \times (Year_t - 1807) \times NearPort_i$$
$$+ \beta_7 Post \times (Year_t - 1807) \tag{3}$$

- $AfricanConflictIncidence_{it}$ is the number of conflicts in the "NearPort" or "Comparison" region in year t.
- $Post_t$ is an indicator for $t > 1807$.
- $NearPort_i$ is an indicator for being within 1000km of a port.
- We estimate this using OLS. There are $2 \times (2 \times W + 1)$ observations.

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Data

- African conflicts are taken from Brecke (1999).
- He gives names, years and durations for 677 conflicts that took place between 1400 and 1900 in Africa.
    - e.g. "Tukulors-Segu (Timbuktoo, Mali), 1863"
- We assign each conflict:
    - Geographic coordinates.
    - An indicator for whether all parties are African.
- Besley and Reynal-Querol (2012) show that conflicts from these data between 1400 and 1700 predict conflict and mistrust today. Iyigun (2008) uses these data to track the responsiveness of Protestant-Catholic conflict to Ottoman military activities.

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Table 2. Main results

	(1)	(2)	(3)	(4)	(5)	(6)
	Number of intra-African conflicts					
NearPort X Post	1.958***	2.310***	2.206***	2.140***	2.260***	2.124***
	(0.302)	(0.295)	(0.285)	(0.245)	(0.237)	(0.242)
NearPort, Post, Year	Y	Y	Y	Y	Y	Y
NearPort X Year	N	N	N	N	N	N
(Year-1807) X Post	N	N	N	N	N	N
NearPort X (Year-1807) X Post	N	N	N	N	N	N
NearPort X Post	1.508**	1.352**	1.800***	2.004***	1.833***	2.150***
	(0.679)	(0.599)	(0.536)	(0.465)	(0.453)	(0.471)
NearPort, Post, Year	Y	Y	Y	Y	Y	Y
NearPort X Year	Y	Y	Y	Y	Y	Y
(Year-1807) X Post	N	N	N	N	N	N
NearPort X (Year-1807) X Post	N	N	N	N	N	N
NearPort X Post	1.496**	1.369**	1.840***	2.025***	1.863***	2.216***
	(0.701)	(0.618)	(0.551)	(0.472)	(0.454)	(0.445)
NearPort, Post, Year	Y	Y	Y	Y	Y	Y
NearPort X Year	Y	Y	Y	Y	Y	Y
(Year-1807) X Post	Y	Y	Y	Y	Y	Y
NearPort X (Year-1807) X Post	Y	Y	Y	Y	Y	Y
Observations	62	82	102	122	142	162
Window	15	20	25	30	35	40

Notes: *** Significant at 1% ** Significant at 5% * Significant at 10%. All regressions are estimated using ordinary least squares, with robust standard errors.
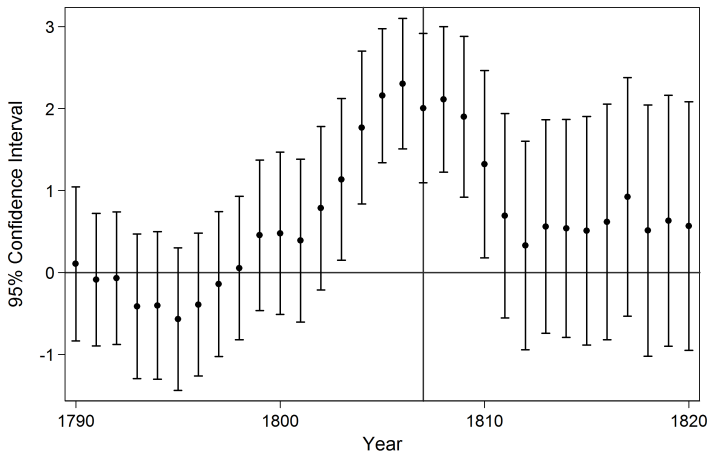
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	(1)	(2)	(3)	(4)	(5)	(6)
	Table 3. Robustness checks					
	A. NearPort measured by distance from coast					
NearPort X Post	1.833***	2.214***	2.129***	2.075***	2.204***	2.027***
	(0.296)	(0.293)	(0.284)	(0.244)	(0.237)	(0.239)
	B. 500 km cutoff					
NearPort X Post	1.958***	2.324***	1.991***	1.634***	1.488***	1.402***
	(0.397)	(0.360)	(0.335)	(0.297)	(0.272)	(0.257)
	C. 500 km cutoff without 500-1000km zone					
NearPort X Post	1.958***	2.317***	2.098***	1.887***	1.874***	1.763***
	(0.297)	(0.278)	(0.273)	(0.246)	(0.227)	(0.214)
	D. NearPort measured by country having slave port					
NearPort X Post	0.425	0.860***	0.922***	0.503*	0.541**	0.596**
	(0.323)	(0.295)	(0.303)	(0.282)	(0.273)	(0.263)
	E. Including the matrilineal belt as "NearPort"					
NearPort X Post	1.958***	2.310***	2.286***	2.206***	2.317***	2.174***
	(0.302)	(0.295)	(0.288)	(0.248)	(0.239)	(0.244)
	F. War starts					
NearPort X Post	0.825**	0.869***	0.775***	0.613**	0.554**	0.534**
	(0.371)	(0.297)	(0.286)	(0.254)	(0.238)	(0.214)
	G. War continuations					
NearPort X Post	1.133***	1.440***	1.431***	1.527***	1.706***	1.591***
	(0.211)	(0.202)	(0.190)	(0.167)	(0.152)	(0.159)
	H. Number of non-African conflicts as dependent variable					
NearPort X Post	0.183	0.043	0.026	0.287	0.244	0.462*
	(0.327)	(0.283)	(0.266)	(0.288)	(0.261)	(0.243)
	I. Excluding South Africa					
NearPort X Post	0.683**	1.055***	1.043***	1.138***	1.372***	1.348***
	(0.282)	(0.275)	(0.249)	(0.218)	(0.210)	(0.204)
	J. Excluding Islamic Regions					
NearPort X Post	1.833***	2.271***	2.222***	2.156***	2.303***	2.139***
	(0.299)	(0.304)	(0.293)	(0.261)	(0.244)	(0.238)
Observations	62	82	102	122	142	162
Window	15	20	25	30	35	40

Notes: *** Significant at 1% ** Significant at 5% * Significant at 10%. All regressions are estimated using ordinary least squares, with robust standard errors. Other Comparisons, not reported, are NearPort, Year, and Post.
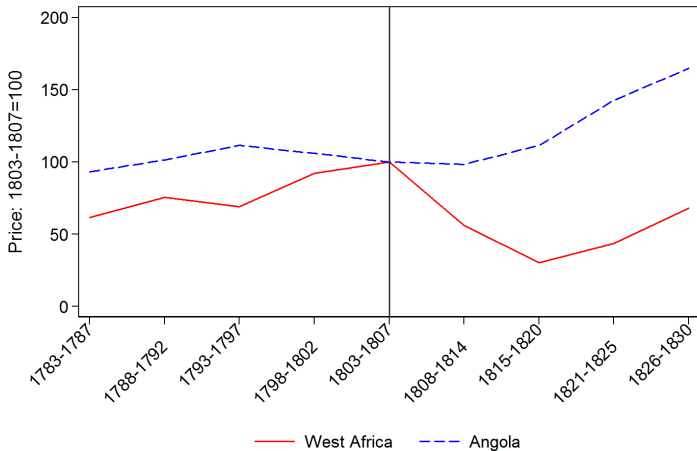
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Placebo test: Trend breaks in alternate years

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Additional Robustness

- Definition of NearPort: Remove comparison group. 500km distance bands.

- Specification: Prais–Winsten estimation. Newey-West standard errors. Bootstrapped standard errors. Add lag conflict. Remove observations within 3 years of 1807. Control for temperature. Clemente-Montañés-Reyes Unit Root Test. Bai and Perron structural break tests. Synthetic control analysis. Restrict to areas with conflict before 1807. Restrict to areas without conflict before 1807.

- Confounding Treatments: Drop countries colonized within the sample period. Red Sea placebo. Remove conflicts near non-African conflicts. Control for non-African conflicts.

- Greater Observation by Europeans? Conflicts do not move further from the coast. Remove areas within 250 km of an explorer route. No more books mention Africa.

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Relative changes in demand: Real slave prices

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Model: Setup

- A ruler uses conflict to produce S slaves at a cost of $C(S)$, where $C(0) = 0$, $C_S > 0$ and $C_{SS} > 0$.
- The ruler earns pX from slaves exported and $Y(S - X) = Y(D)$ from slaves kept for domestic use, where $Y(0) = 0$, $Y_D > 0$ and $Y_{DD} < 0$.
- Define $R(S)$ as the maximum revenue $pX + Y(S - X)$ that the ruler can achieve by choosing X, given S.
- Minimum revenue constraint: $R(S) \geq \bar{R} > 0$.
- The ruler solves:

$$\max_S R(S) - C(S) \tag{4}$$

$$s.t. R(S) \geq \bar{R}. \tag{5}$$

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Model: Predictions

- Abolition if (5) is not binding (West-Central and Southeast Africa):

$$\frac{\partial S}{\partial p} = -\frac{R_{Sp}}{R_{SS} - C_{SS}} > 0.$$

- Abolition if (5) is binding (West Africa):

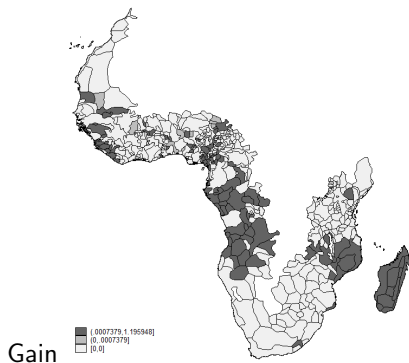$$\frac{\partial S}{\partial p} = -\frac{R_p}{R_S} < 0.$$

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Persistence: Gain and Loss

- We compute:

$$Gain_i = \ln\Big(1 + \frac{SlaveExports1800s_i - SlaveExports1700s_i}{Population1700_i}\Big)$$

$$\text{if } SlaveExports1800s_i \geq SlaveExports1700s_i$$

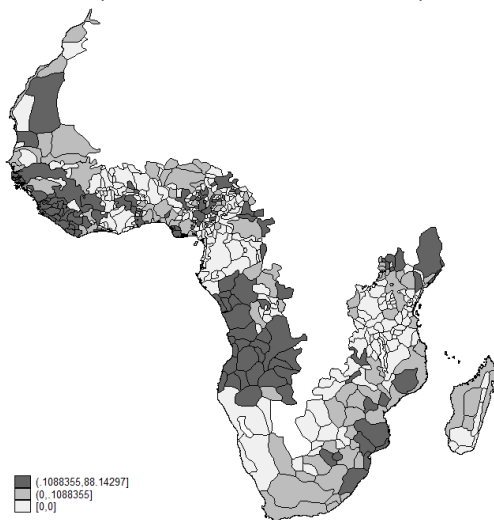$$Loss_i = \ln\Big(1 + \frac{SlaveExports1700s_i - SlaveExports1800s_i}{Population1700_i}\Big)$$

$$\text{if } SlaveExports1800s_i < SlaveExports1700s_i$$

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Persistence: Variables

Gain

Loss

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Persistence: Variables

ln(1+Battle Deaths per Capita)

(.1088355,88.14297]
(0, .1088355]
[0,0]

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Persistence: Estimation

- We estimate

$$\ln\Big(1 + \frac{BattleDeaths_i}{Population1990_i}\Big) = \beta_G \, Gain_i + \beta_L \, Loss_i + x_i'\gamma + \delta_c + \epsilon_i.$$

- i denotes ethnic groups.
- x_i includes a constant, land area of the ethnic group, the log of one plus per capita slave exports in the 1700s, absolute latitude, longitude, population in 1990, ruggedness, malaria suitability, elevation, constraints on rainfed agriculture, average rainfall, a "split" dummy, and average temperature.
- δ_c is a set of country fixed effects.
- We estimate this using a tobit and use robust standard errors.

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Table 6. Persistence

	(1)	(2)	(3)	(4)	(5)
	ln(1+Battle Deaths per Capita) X 1000				
ln(1+Gain Per Capita)	8.821***	7.036**	6.307**	10.270**	10.653**
	(2.794)	(3.345)	(2.451)	(4.537)	(4.454)
ln(1+Loss Per Capita)	3.361	4.930	13.129**	9.440	22.326**
	(2.819)	(4.310)	(5.469)	(8.797)	(9.128)
Controls	No	Yes	Yes	Yes	Yes
Country Fixed Effects	No	No	Yes	No	Yes
Sample	Near Port	Near Port	Near Port	All	All
Observations	511	511	511	828	828

			Summary Statistics		
	Mean	s.d.	Min	Max	N
ln Battle Deaths per Capita X 1000	0.79	4.92	0	88.1	511
Gain Per Capita	0.021	0.094	0	1.20	511
Loss Per Capita	0.016	0.094	0	1.22	511

Notes: *** Significant at 1% ** Significant at 5% * Significant at 10%. Robust standard errors in parentheses. All results estimated using a tobit. The excluded instruments in Colum (4) are a set of dummies for the European country that shipped the most slaves from the closest port during the 25 years before 1807. Controls are land area, ln(1+Slave Exports per Capita) in the 1700s, absolute latitude, longitude, population in 1990, ruggedness, malaria suitability, elevation, constraints on agriculture, rainfall, temperature, and a dummy for partitioned ethnic groups.

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Conclusion

- Political scientists (e.g. Herbst, Reid) have emphasized that the nature of conflict in African history was different, and has left behind a different legacy.
- Recent empirical work has confirmed aspects of this.
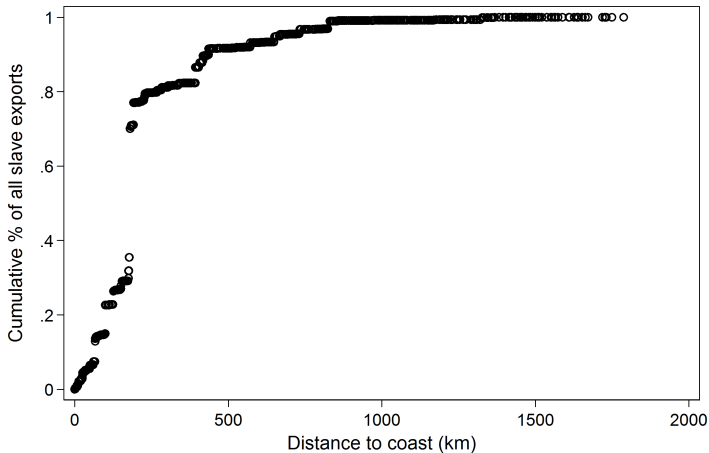- I have provided detail on the response to a specific shock and its long-run effects.

Appendix

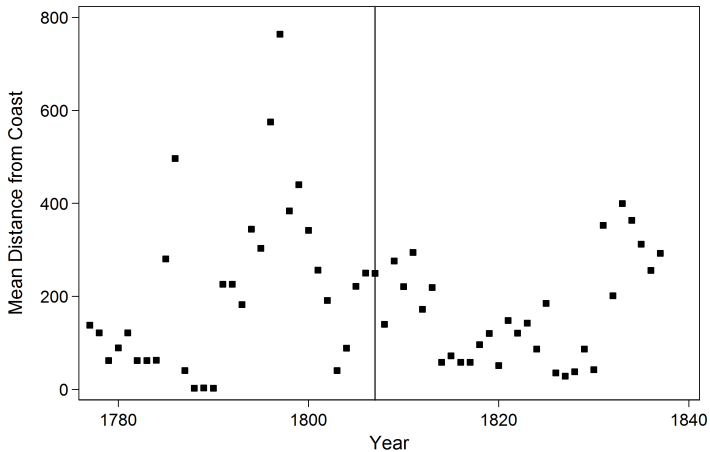# Regions for Synthetic Control
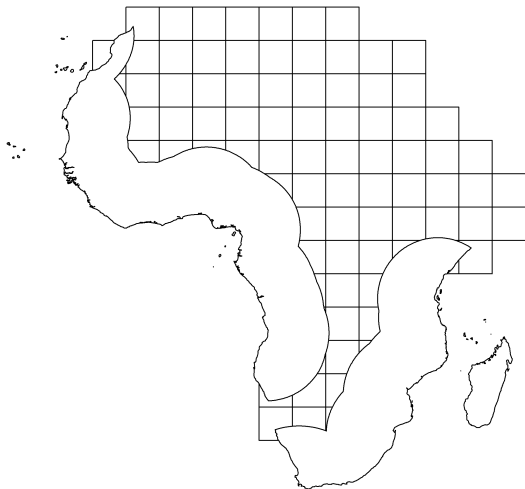
Synthetic Control
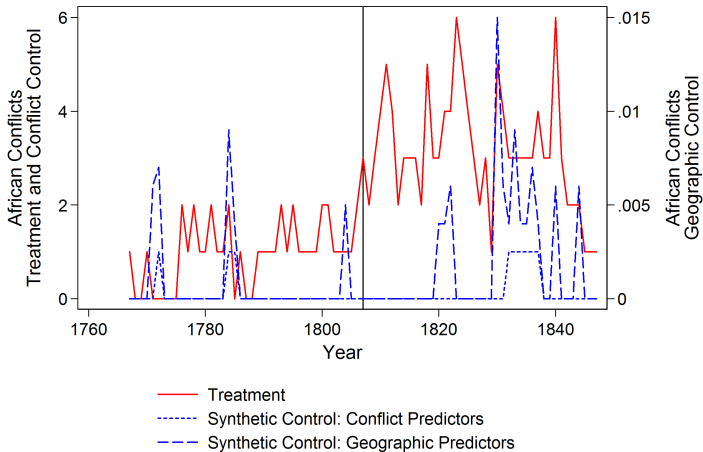
Slave Exports v. Coast Distance

Year v. Coast Distance

Clemente-Montañés-Reyes Unit Root Test