

# **THE NATURE, FORMATION, AND DEVELOPMENT OF STATES**

*Comparative Politics*

Guillermo Toral

IE University

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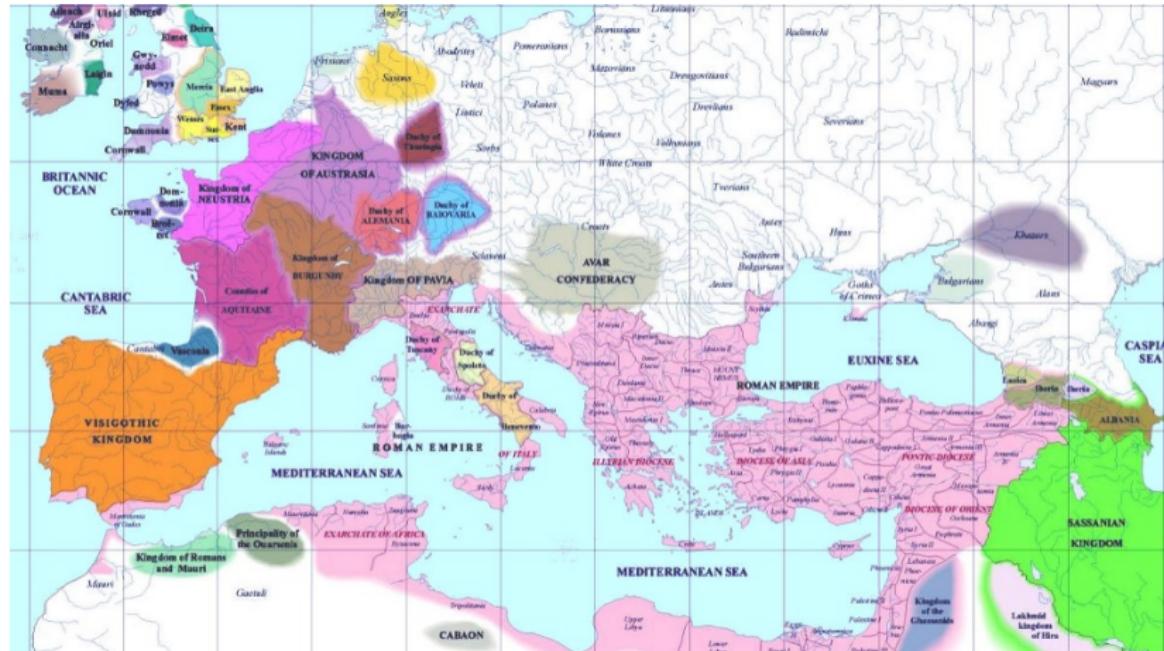
- What are states?
- How do states emerge and develop?
- Why do states vary in their capacity, and how can they boost it?
- Workshop and exercise: Interpreting regression tables
- Case: Organized crime in Latin American cities

# What are states?

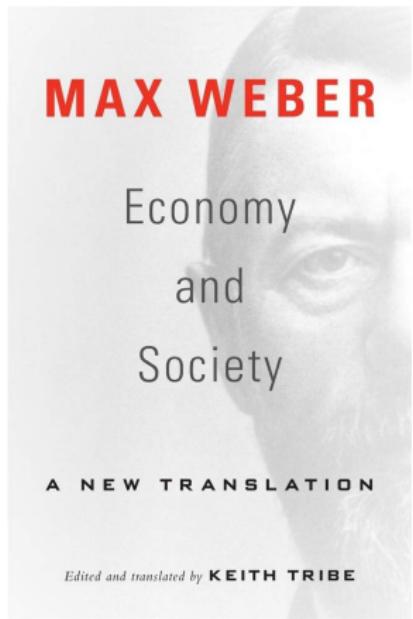
# Polities around the world today



# Polities around the Mediterranean around 600 AD



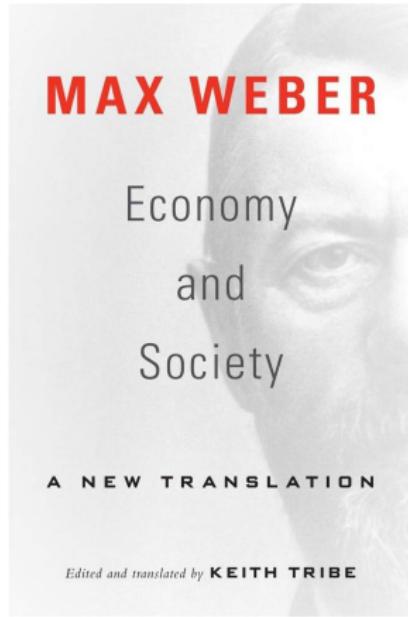
# Weber's concept of the state



*"A 'ruling organization' will be called 'political' insofar as its existence and order is continuously safeguarded within a given territorial area by the threat and application of physical force on the part of the administrative staff.*

*A compulsory political organization with continuous operations [...] will be called a 'state' insofar as its administrative staff successfully upholds the claim to the monopoly of the legitimate use of physical force in the enforcement of its order."*

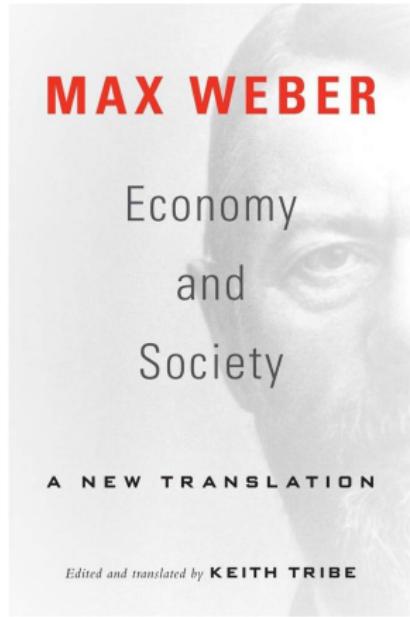
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- Territoriality

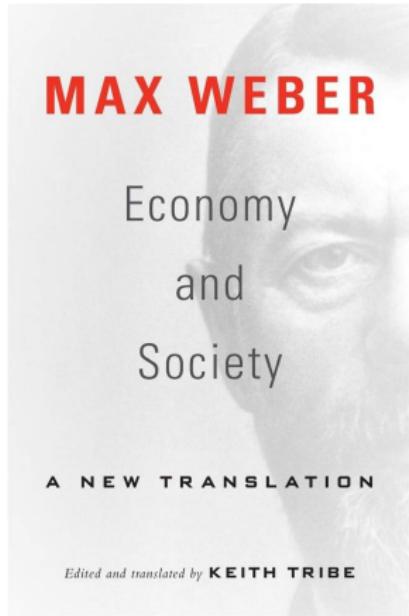
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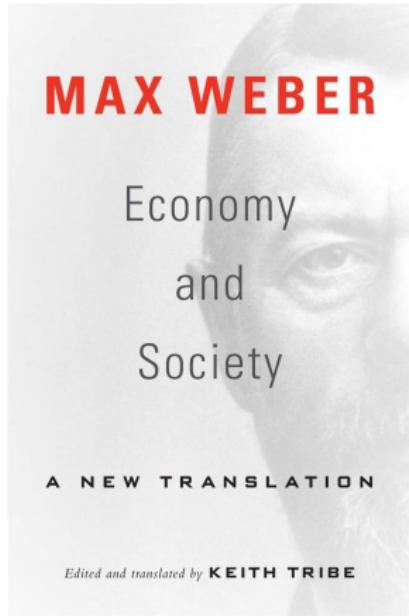
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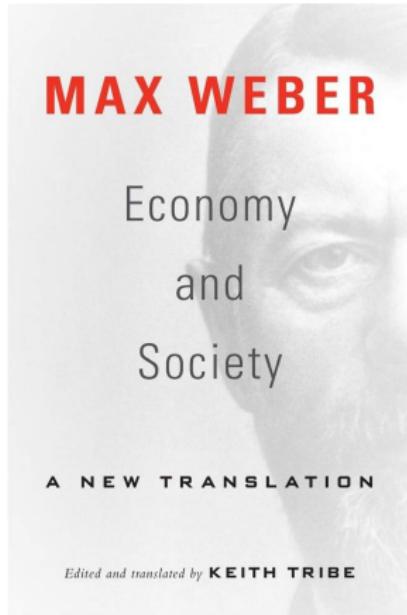
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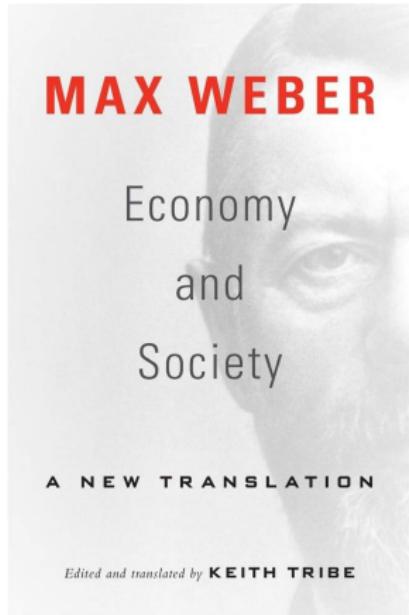
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- Successful claim to the monopoly of legitimate violence

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- Fixed geographic boundaries & territorial sovereignty

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- Displacement of kinship, ethnic, and religious sources of authority
- National identity
- Hegemony in politics and culture
- Trust in government
- Political conflicts organized within the boundaries of the state (e.g., partisanship, elections)

## How do states emerge and develop?

# Hobbes' theory of the state



- The state of nature

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- The sovereign
- Absolutism

# The state of nature in Hobbes



*"In such condition, there is **no place for industry; because the fruit thereof is uncertain**: and consequently no culture of the earth; no navigation, nor use of the commodities that may be imported by sea; no commodious building; no instruments of moving, and removing, such things as require much force; no knowledge of the face of the earth; no account of time; no arts; no letters; no society; and which is worst of all, **continual fear, and danger of violent death**; and the life of man, solitary, poor, nasty, brutish, and short."*

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  - Through coercion and violence, the state raises the costs of **free riding**

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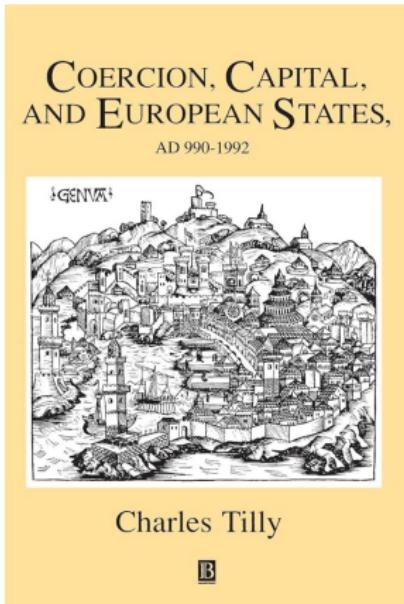
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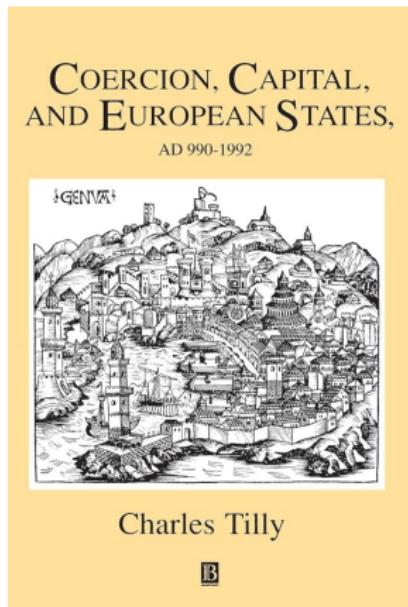
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- For Hobbes, a regime is **legitimate if it can protect** those who have consented to it – and not depending on how it came to be or what institutions it uses
- In Hobbes' theory of the state, **subjects are politically obliged to obey**, unless they are not protected by the sovereign

# Tilly's theory of the state

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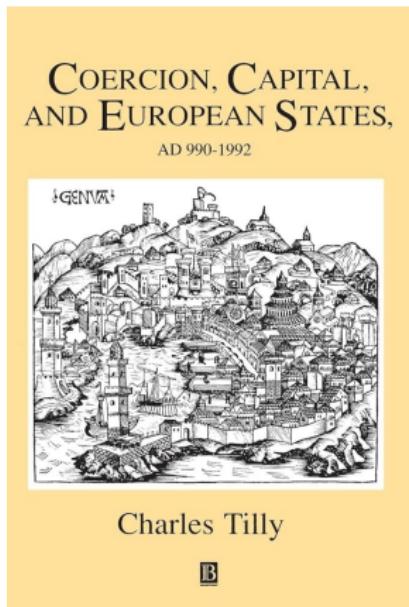


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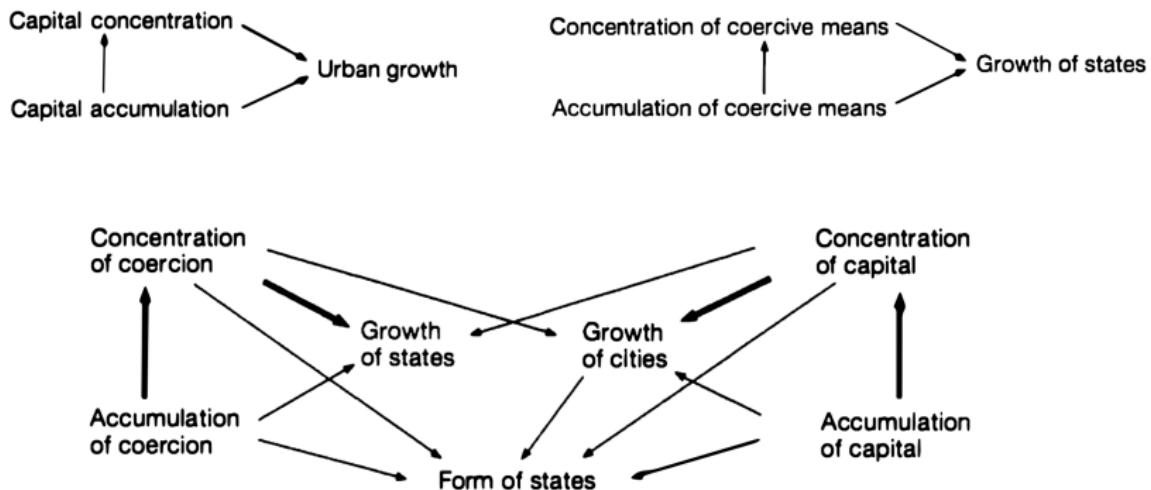
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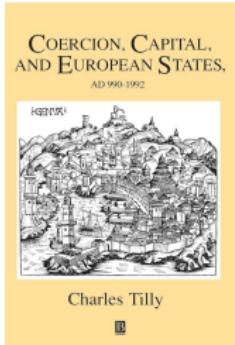
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- What sets national states apart for Tilly is that they got heavily invested not just in **extraction** and **war making**, but also in **protection** and **adjudication**

## Tilly's argument on the origin of modern states



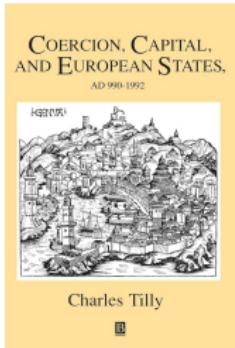
# Tilly on state-building as war-making

- “*War and preparation for war involved rulers in extracting the means of war from others who held the essential resources – men, arms, supplies, or money to buy them – and were reluctant to surrender them without strong pressure or compensation.*”



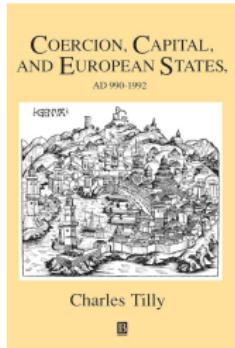
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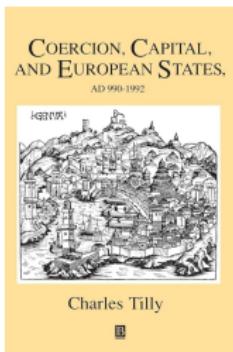
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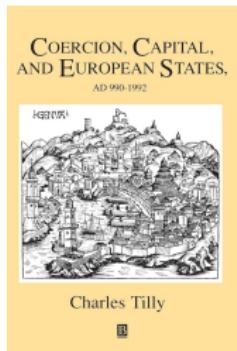
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- “***War made the state, and the state made war***”

# Tilly on states as mafias

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- “At least for the European experience of the past few centuries, a portrait of **war makers and state makers as coercive and self-seeking entrepreneurs** bears a far greater resemblance to the facts than do its chief alternatives: the idea of a social contract, the idea of an open market in which operators of armies and states offer services to willing consumers, the idea of a society whose shared norms and expectations call forth a certain kind of government.”

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- Tilly and other scholars in the predatory view of the state are more preoccupied with describing how states emerge, rather than legitimizing their existence (**descriptive versus normative**). Therefore, empirical analyses are more important.

# A typology of theories about state building, depending on what they emphasize

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- **Geography**: physical, economic, political, ethnic, etc.

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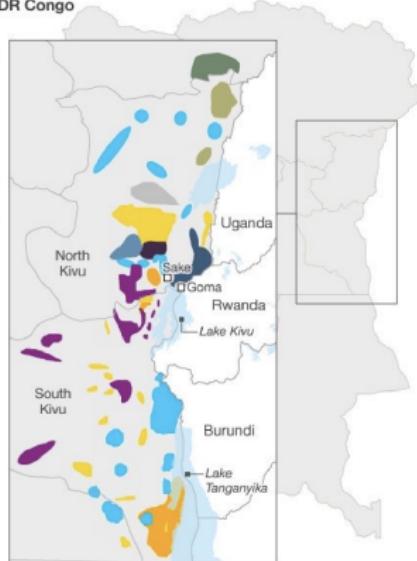
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- If you want to skim the article, you can download it at [www.guillermotoral.com/cp/sanchezdelasierra.pdf](http://www.guillermotoral.com/cp/sanchezdelasierra.pdf)

# Background: Rebel groups and mining in Congo

Rebel groups in eastern DR Congo

UN forces and the Congolese army are present in large towns

- ADF-NALU  
Ugandan-led Islamists
- APCLS  
Mai Mai group
- FDLR  
Mostly Hutu Rwandan rebels
- FRPI  
Based in gold-rich Ituri region
- M23  
Mostly Tutsi, said to be Rwandan-backed
- Rai Mutomboki  
Anti-FDLR group
- Sheka  
Mai Mai group
- UPCP  
Loose coalition of smaller nationalist groups
- Mai Mai groups  
Local forces claiming to act in self-defence
- Other armed groups



Source: Oxfam

\*An estimate of where armed groups were in November 2012 based on the best available information.  
The conflict is changing daily.

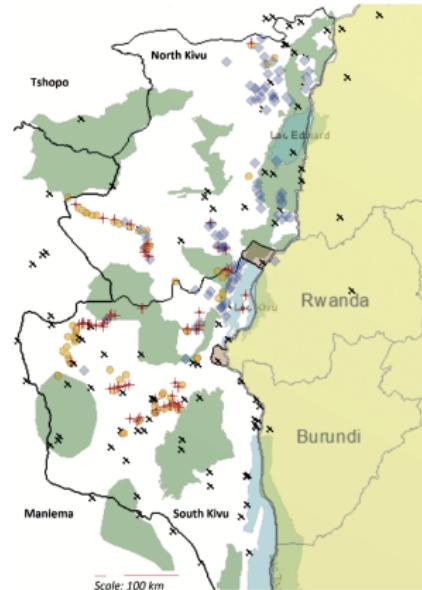
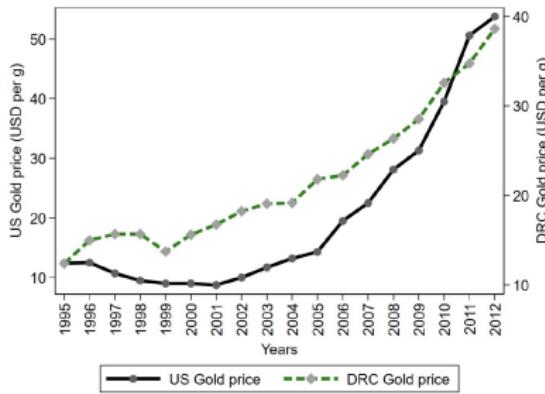
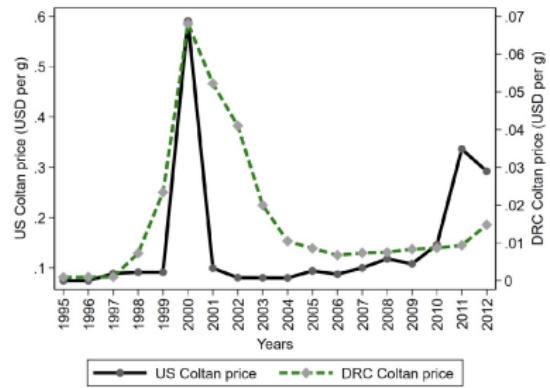


FIG. 2.—Locations of the support villages in the sample. Support villages with at least one coltan mine are marked with a cross. Support villages with at least one gold mine are marked with a disk. Support villages with neither gold nor coltan mines are marked with a diamond. The economy of such municipalities is based on cash crops—coffee, cacao, beans—less prevalent minerals in the sample (casiterite and tungsten), or, for a small sample, subsistence agriculture (Kalehe). Airplanes indicate local airstrips.

# Background: Changes to the price of coltan and gold



# Results: Effect of changes in minerals' price on coercion, extraction, and protection

TABLE 1  
EXPLAINING THE RISE OF TAXES ON PRODUCTION, STATIONARY BANDITS, AND PROTECTION

VARIABLES	MUNICIPALITY ATTACKED (1)	MINE					VILLAGE		
		Customs Tax (2)	Entry Fees (3)	Stationary Bandit (4)	Security Service (5)	Extensive-Margin Index (6)	Stationary Bandit (7)	Security Service (8)	Extensive-Margin Index (9)
Coltan $\times p_{ct}$	.15*** (.03)	.06** (.02)	.01 (.02)	.07*** (.03)	.06** (.02)	.16*** (.06)	.04 (.03)	.02 (.02)	.07 (.05)
Gold $\times p_{gt}$	−.02 (.03)	−.04 (.02)	−.04* (.03)	.05 (.04)	.05 (.04)	.10 (.07)	.12*** (.04)	.15*** (.04)	.33*** (.08)
Observations	4,158	4,046	4,052	3,991	4,032	3,903	4,302	4,302	4,302
R <sup>2</sup>	.39	.59	.69	.60	.62	.65	.50	.42	.50

NOTE.—Standard errors are in parentheses. This table presents the results from specification 1, using as dependent variables the extensive-margin outcomes. Column 1 uses as dependent variable whether the municipality was attacked in a given year (in any of its mines or its support village, by any actor). Columns 2–6 show the outcomes at the production site (mine), and cols. 7–9 those at the support village corresponding to the mine. Column 2 uses a dummy indicating whether an armed actor imposed customs taxation on mining output at the exit of the mine (enforced through a roadblock). Column 3 uses a dummy indicating whether an armed actor imposed an entry fee to work at the mine (enforced through a roadblock). Column 4 uses a dummy indicating whether an armed actor had established a monopoly of violence at the mine. Column 5 uses a dummy indicating whether an armed actor provided a security service at the mine. Column 6 uses the extensive-margin index at the mine as dependent variable. The extensive-margin index at the mine is constructed as the mean of customs taxation, entry fees, stationary bandit, and security service, normalized to mean zero and standard deviation of one. Column 7 uses instead a dummy indicating whether an armed actor had established a monopoly of violence at the support village corresponding to the mine. Column 8 uses a dummy indicating whether an armed actor provided a security service at the support village corresponding to the mine. Column 9 uses the extensive-margin index at the support village as dependent variable. The extensive-margin index at the support village is constructed as the mean of stationary bandit and security service at the village, normalized to mean zero and standard deviation of one. There are 239 municipalities in the sample, broken down into 239 support villages and their 411 corresponding mining sites. The mine × year-level data are collapsed at the municipality/year level. All columns include year- and municipality-level fixed effects. Standard errors are clustered at the level of the municipality to account for autocorrelation in the dependent variable, the mineral endowments (which are time invariant), and the mineral price. Appendix sec. E describes 13 robustness checks. The results are presented in tables F.2, F.5, and F.6 and figs. F.4–F.8. Table F.7 and fig. F.9 show the effect of the price shocks on the composition of stationary bandits. Table F.8 shows the results excluding the FARD, and table F.9 shows the results including only the FARD.

\*  $p < .1$ .

\*\*  $p < .05$ .

\*\*\*  $p < .01$ .

# Results: Effect of stationary bandits on welfare

TABLE 4  
ESSENTIAL FUNCTIONS OF A STATE AND HOUSEHOLD WELFARE—EFFECT OF STATIONARY BANDITS

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Savings Index	No. of Weddings	No. of Immigrants	Welfare Index	Welfare Index	Welfare Index	Welfare Index	
A. OLS								
Militia <sub>it</sub>	.05** (.02)	.16** (.06)	.46*** (.11)	.24*** (.06)	.20*** (.07)			
External <sub>it</sub>	.03 (.03)	-.20*** (.06)	-.13 (.11)	-.07 (.06)		-.04 (.07)		
Army <sub>jt</sub>	.03 (.04)	.25*** (.08)	.42*** (.14)	.32*** (.08)			.48*** (.12)	
Observations	3,582	3,466	3,523	2,669	1,426	1,579	1,474	
R <sup>2</sup>	.36	.54	.40	.51	.63	.63	.63	
Sample restriction	No	No	No	No	Yes	Yes	Yes	
p-value:								
Militia = External	.56	.00	.00	.00				
FARDC = External	.93	.00	.00	.00				
Militia = FARDC	.54	.33	.80	.48				
B. IV (2SLS)								
	Savings Index	No. of Weddings	No. of Immigrants	Welfare Index	Savings Index	No. of Weddings	No. of Immigrants	Welfare Index
SB <sub>it</sub>	.01 (.09)	.26 (.18)	1.70*** (.45)	.71*** (.21)	-.05 (.08)	-.27** (.13)	.99*** (.35)	.25 (.19)

## Summary of key results in the Congo bandits study

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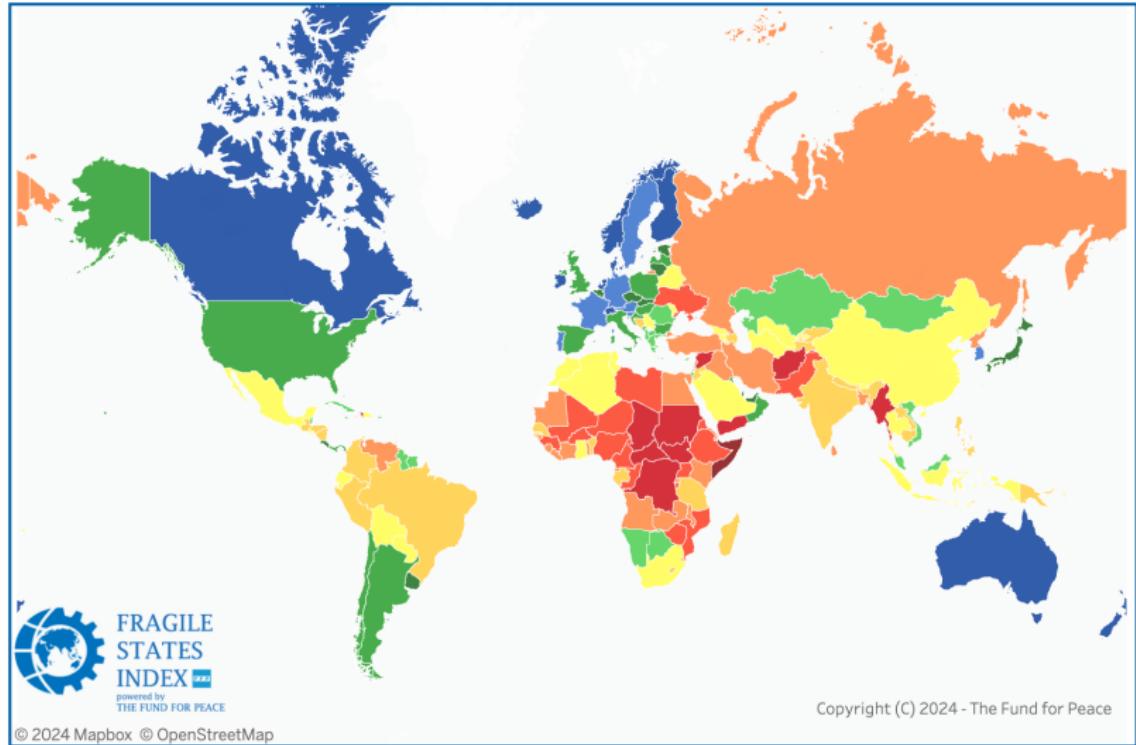
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- Having a stationary bandit with a mission that encompasses the population well-being (popular militia, Congolese army actors) increased household welfare
- Gold shocks led to the intensification of the functions of militias: working permits, more sophisticated tax systems, fiscal and judicial administration. Coltan shocks had the opposite effect.

Why do states vary in their capacity, and how can they boost it?

# States vary in their “Weberianness”

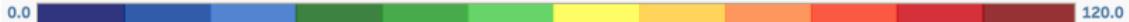


Sustainable

Stable

Warning

Alert



View on Tableau Public

Comparative Politics



Share

3. Nature, formation, and development of states

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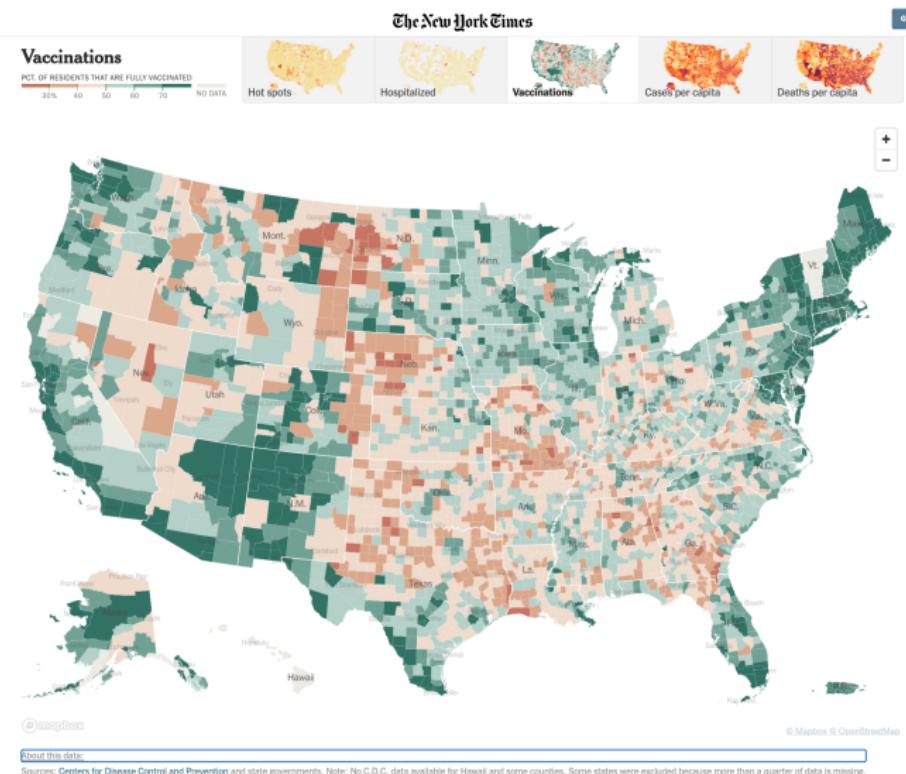
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- For example, unified market with secure property rights

- **Compliance capacity:**

- Actors' acceptance and co-production of order
- For example, successful vaccination campaign

# State capacity may vary across localities and sectors



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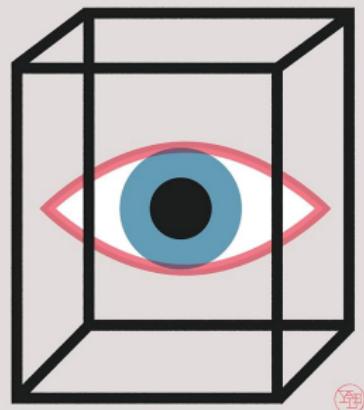
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  - State presence and transformation of its geography – physical and human
  - Information gathering and processing

# Legibility

## Seeing Like a State

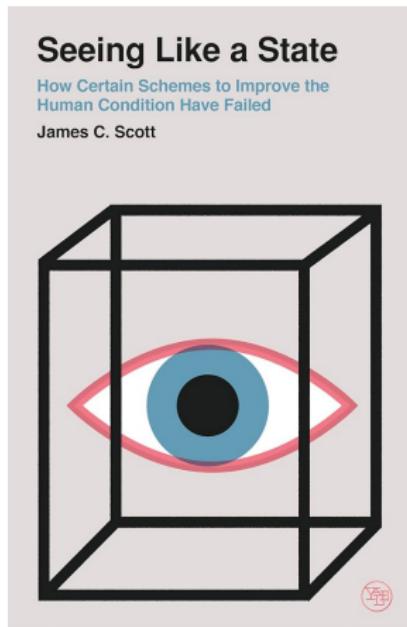
How Certain Schemes to Improve the Human Condition Have Failed

James C. Scott



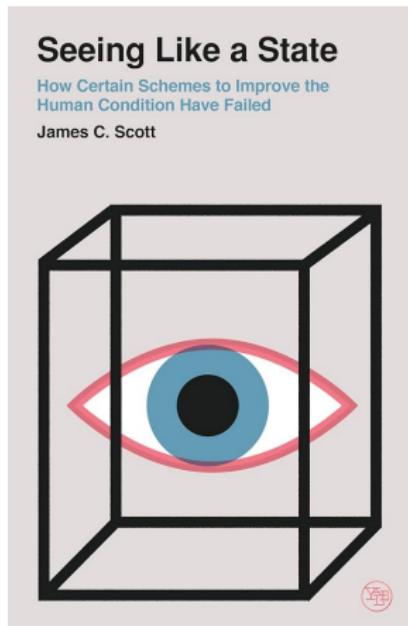
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# Legibility



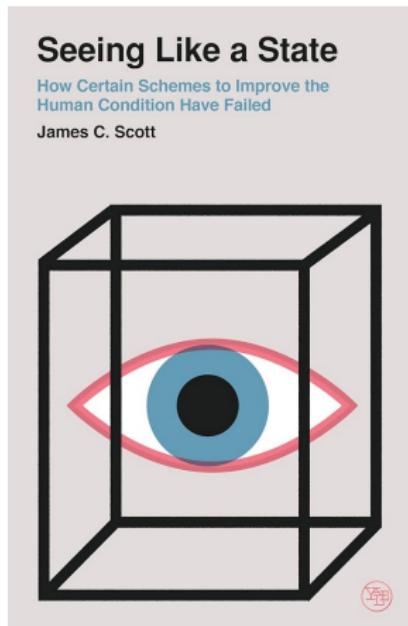
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- Legibility is **the breadth, depth, and standardization of the state's knowledge about its citizens** and their activities
- From this perspective, state capacity requires making local actors and practices legible to the state (i.e., visible and actionable in a rational or standardized manner)
- Legibility is central not just to extraction but also to coordination and compliance
- Empirical **measures** of legibility include the existence of censuses or cadasters, strength of statistical agencies, and quality of government data

# Census data quality as a measure of legibility

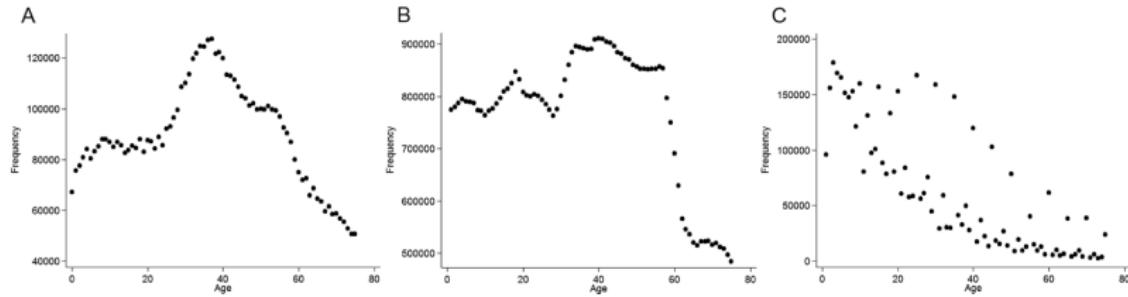
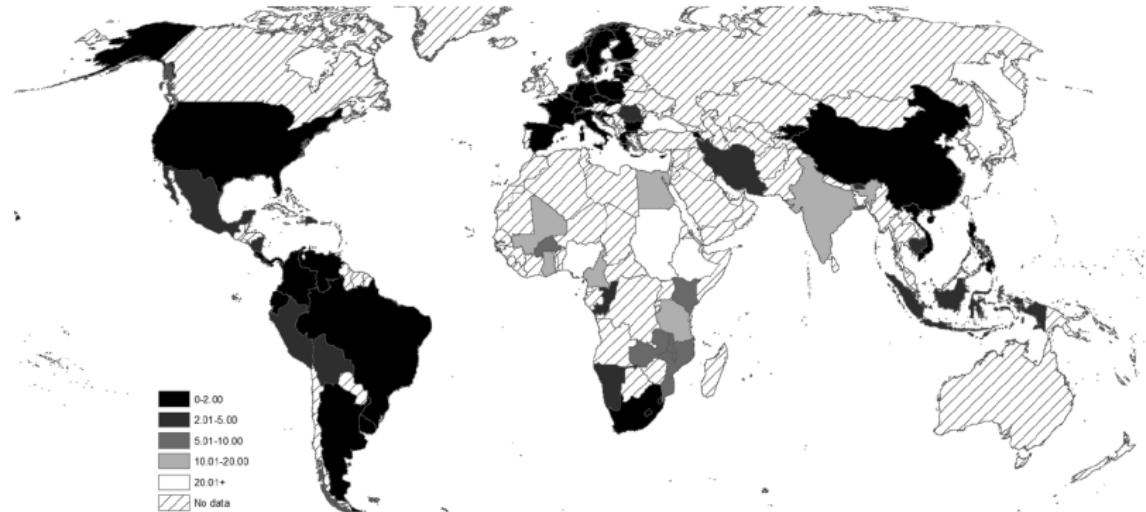


Figure 1. The effect of demographic shocks on the smoothness of age curves: A, Switzerland, 2000; B, France, 2006; C, Sierra Leone, 2004

From a study on **legibility and the informational foundations of state capacity** (which you can download at [www.guillermotoral.com/cp/lee.pdf](http://www.guillermotoral.com/cp/lee.pdf))

# Census data quality as a measure of legibility



# Census data quality predicts taxation

Table 4. Legibility and Taxation: Subnational Results

	Tax Revenue (1)	Tax Revenue (2)	Tax Ratio (3)	Tax Ratio (4)
Legibility	.319*	.104*	.0634*	.0587*
	(.138)	(.0385)	(.0249)	(.0225)
Regional GDP per capita		1.582 ** (.0846)		
Distance		-.0230+ (.0124)		-.0161+ (.00753)
Population density		.0549+ (.0269)		.0216+ (.0107)
Terrain ruggedness		.0159 (.0161)		.00697 (.00813)
Constant	-.0817*	-.0429** (.0356)	-.0195* (.00639)	-.0159* (.00597)
R <sup>2</sup>	.0825	.781	.0503	.121

Note. Number of observations = 399. Number of countries = 12. Myers scores are inverted so that higher values indicate greater legibility. Country-specific intercepts suppressed. Standard errors are in parentheses and are clustered by country.

+  $p < .10$ .

\*  $p < .05$ .

\*\*  $p < .01$ .

# Census data quality predicts public goods

Table 6. Legibility and Public Goods: National-Level Results

	Mortality (1)	Mortality (2)	Literacy (3)	Literacy (4)	Enrollment (5)	Enrollment (6)
Legibility	−.663** (.0398)	−.283** (.0481)	.797** (.0649)	.507** (.0839)	.586** (.0867)	.229* (.0942)
GDP per capita		−.531** (.0572)		.355** (.0738)		.367** (.0955)
Democracy		−.0835* (.0364)		.104 (.0726)		.0736 (.0636)
Population density		−.146** (.0322)		.0374 (.0456)		.131+ (.0678)
Terrain ruggedness		.0551+ (.0281)		.113+ (.0581)		.184** (.0655)
Constant	.333** (.0687)	.221** (.0531)	−.597** (.212)	−.514** (.193)	−.426* (.163)	−.413** (.147)
Number of observations	326	326	188	188	244	244
Number of countries	111	111	84	84	105	105
R <sup>2</sup>	.744	.888	.673	.758	.445	.576

Note. Decade-specific intercepts are suppressed. Standard errors are in parentheses and are clustered by country.

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## Workshop and exercise: Interpreting regression tables

## What is a regression?

- Regression is a type of analysis to estimate how one or multiple variables (e.g., education, gender, wealth) relate to one variable of interest (e.g., vote choice)
- Regression is different from, but intimately related to correlation
- Regression is not causation (but it can get us there in certain circumstances)
- There are many types of regression, the most common one being linear regression (aka OLS, for ordinary least squares)
- Different types of regression require different assumptions for us to "buy" the estimates we get

## What do regressions look like?

- In linear regression, we typically estimate a model of the form
$$Y = \alpha + \beta X_1 + \gamma X_2 + \varepsilon$$
- Y what we want to explain (aka, the dependent variable)
- $X_1$  (and  $X_2$ , potentially  $X_3, X_4$ , etc.) are variables whose association to Y we want to measure (independent variables)
- The Greek letters correspond to coefficients we will be estimating with the regression
- $\beta$ , in particular will give us the regression's estimate of how  $X_1$  is associated to Y

**Regression tables** typically present OLS estimates of the association between each independent variable (e.g.,  $X_1$ ) and the dependent variable (Y), together with many other useful pieces of information.

## What are the key pieces of information in a regression table and where do we find them? (1)

- **Dependent variable (y)**: The variable that the researcher is trying to explain (typically at the top of the table or column)
- **Independent variable(s) (e.g.  $X_1$ )**: The variables that the researcher is using to explain the dependent variable (typically row names)
- **Coefficient (e.g.  $\beta$ )**: The estimate of the association between a given independent variable and the dependent variable (main number in the cells of the table)
- **N**: number of observations that went into the model. Typically toward the bottom of the table

## What are the key pieces of information in a regression table and where do we find them? (2)

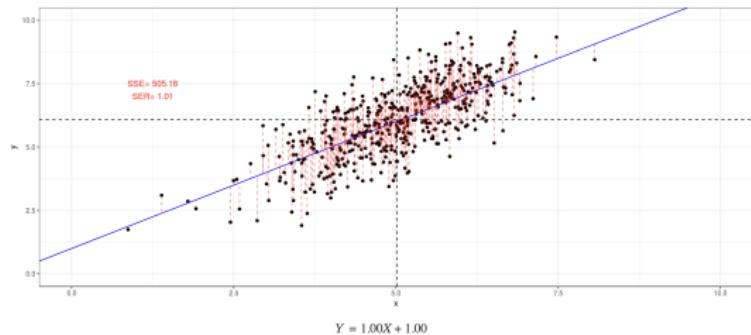
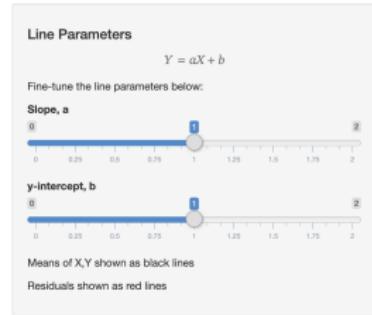
- **Standard error:** The estimate of how certain we can be about the size of a given coefficient (typically under the coefficient, in brackets). Standard errors can be corrected through different procedures (typically informed on the bottom of the table), for example through clustering.
- **p-value:** The probability of obtaining an estimate so extreme if the effect was actually zero (typically tables use stars by the coefficients to represent whether the p-value is under a certain threshold, and a legend below, e.g.,  $*p < 0.05$ ,  $**p < 0.01$ ,  $***p < 0.001$ ). If the p-value is below the threshold (and therefore there are stars), we tend to believe the estimate and we say it is “statistically significant” (because we conclude the association is so strong that is unlikely to be due to mere chance)

# Where do regression coefficients come from?

- OLS regression coefficients come from **minimizing the sum of squared residuals**, where the residual or error is the distance between a given observation's value on  $X$  and its predicted value for the outcome,  $\hat{Y}$ .
- Calculating OLS coefficients comes down to an optimization problem. There are formulas one can use to estimate them.
- In practice, we simply run code in software like R or Stata, where we tell the program what is the dependent variable and what are the independent variables.

# Where do regression coefficients come from?

## Visualizing Linear Regression



Linear regression chooses slope and intercept to minimize SSE (sum of squared errors)

We also want a smaller SER (standard error of the regression)

This model is coded with R and Shiny by Ryan Safner

Interactive app at

[ryansafner.shinyapps.io/ols\\_estimation\\_by\\_min\\_sse/](http://ryansafner.shinyapps.io/ols_estimation_by_min_sse/)

# Do regression coefficients estimate causal effects?

- Generally speaking no, regression coefficients do not necessarily measure causal effects
- Most often, they just measure associations – how variation in one variable is associated to variation in the outcome, holding all other controls constant
- Unless we have an experiment or something approximating an experiment, we need to worry about confounders
- But when we do have a randomized experiment, or a research design credibly approximating an experiment (i.e., a quasi-experiment) regression coefficients are valid estimates of causal effects

## Exercise: Interpreting regression

Download the article on legibility at

**www.guillermotoral.com/cp/lee.pdf**. Examine Model (2) in Table 4 and discuss, in groups, the following questions.

- What is the dependent variable? What are the independent variables? How many observations are included in the regression?
- What is the regression coefficient corresponding to legibility?
- What is the standard error of that regression coefficient? What is its p-value? Is that association statistically significant?
- What does that coefficient suggest about the relationship between legibility and mortality?
- Is that estimate causal? Why or why not?
- What is the key hypothesis this regression tests?
- What is the research design used here?

# Exercise: Interpreting regressions

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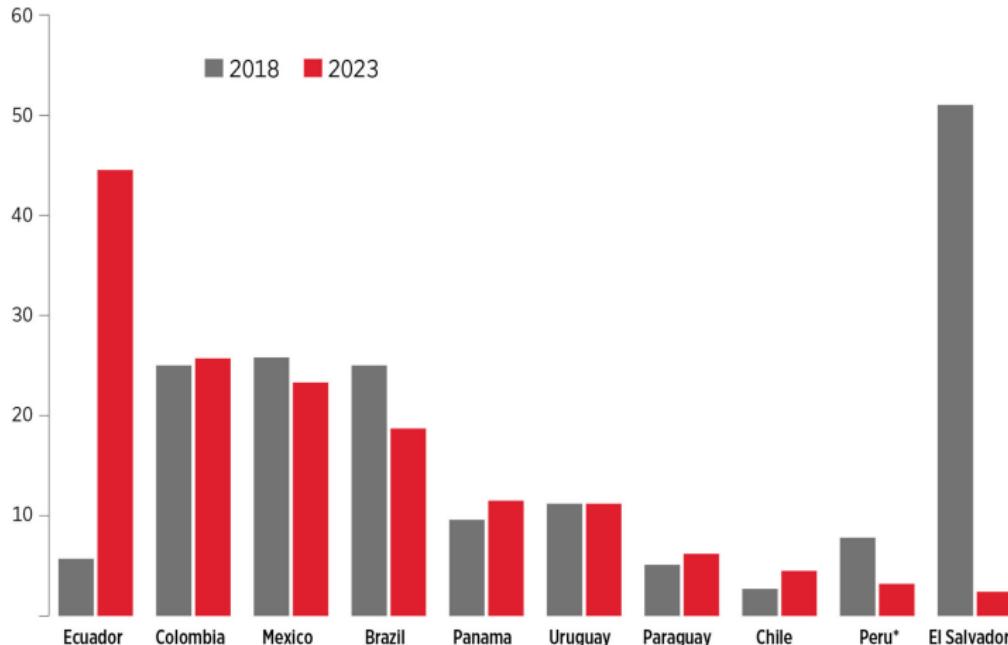
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## Case: Fighting organized crime in Latin America

# Organized crime is a major challenge - in Latin America and elsewhere

## Homicide rates in Latin American countries over the last five years

HOMICIDE RATES PER 100,000 PEOPLE



# Some of these organizations resemble proto-states

Article | Conceptualizing Criminal Governance

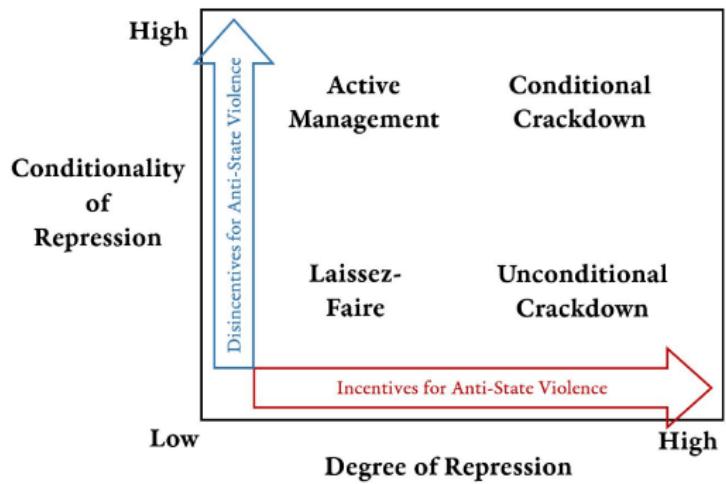
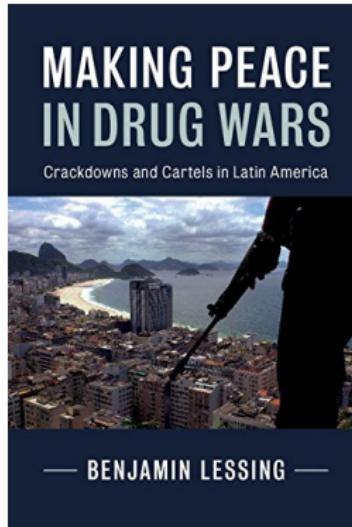
Figure 2  
What is governed? Dimensions of criminal governance, by function.

Function Dimension	Low	Medium	High
<b>Policing and Enforcement</b>			
Prohibit theft / enforce property rights	Posted prohibition but weak enforcement	Effective prohibition; sense that property is secure	Ban theft in vicinity, storage of stolen goods in community; provide security for local firms
Prohibit sexual, domestic violence	Ban rape and pedophilia but weak enforcement	Effective ban on rape and pedophilia; perpetrators punished	Bans on domestic violence, sexual harassment, calling
Regulate homicide, interpersonal violence	Require notification	Require permission	Ban all unauthorized homicide
Law of silence (omerta)	Wealthy enforced ban on going to police	Residents rarely go to police; general fear of being seen with police	Residents expected to actively protect gang members during police incursions
Control entrance, exit, and movement	Passive monitoring	Require identification on entry; impose curfews	Control outside movement; expel unworthy residents
Arms control	Only internal control	Civilian "registration" of arms	Regulate who may possess; requisition in times of war
Other public behavior	Regulate externally-producing behavior	Regulate clothes, colors, music referencing rivals	Regulate religious practice, sexual behavior, etc.
<b>Judicial</b>			
Dispute resolution	Only major or gang-related disputes; arbitrary process	Community disputes; two-person juries or institutionalized process	Multi-jury trials, "legal" precedents, public norms, appeals
Trial & punishment; restorative justice	Only when directly gang-related	Limited involvement with civilians	Active investigation, reckoning
Debt collection and contract enforcement	Only gang-related	Enforce 3rd party debts and contracts	Elaborate record-keeping; "credit scores"
<b>Fiscal</b>			
Tax collection / extortion	Arbitrary, unpredictable	Regular payment schedule; fee-for-service	Receipts; mutual sense of what is being provided in exchange
Public goods and welfare provision	"Free": Coordination problems	"Cheap" services: e.g. clean streets, prune trees	"Expensive" goods: infrastructure, welfare, etc.
Micro-credit	Members	Non-member criminals	Civilians
<b>Regulatory</b>			
Ilicit markets	Regulate drug consumption	Ban certain drugs or other activities	Tax criminal activity in area
Licit markets	Sell some legal goods	Tax some legal goods	Produce and monopolize legal goods; tax informal transport
<b>Political</b>			
Electoral politics	Passively endorse candidates	Sell access to candidates; keep others out	Coerce voters, long-term relationship with candidates
Community politics	Participate	Try to coopt/penetrate	Actively destroy or dominate

Note: Examples of governance activities are cumulative, e.g., High levels include activities at Low and Medium levels.

*"In informal urban areas throughout the developing world, and even in some US and UK neighborhoods, tens if not hundreds of millions of people live under some form of criminal governance. For them, states' claims of a monopoly on the use of force ring hollow; for many issues, a local criminal organization is the relevant authority. Yet the state is far from absent: residents may pay taxes, vote, and even inform on gangs as punishment for abusive behavior."*

# What to do?



# What to do? Evidence by Lessing

		Laissez-Faire	Active Management	Unconditional Crackdown	Conditional Crackdown
IVs	Degree of Repression	Low	Low/Medium	High	High
	Conditionality of Repression	Low	High	Low	High
DV:	Anti-State Violence	Low	Very Low	High	Low
Case-Episodes	Colombia	Cocaine Bonanza 1970s-1983	—	Crackdown: 1983-1991  Manhunt: 1992-1993	<i>Sometimiento:</i> 1991-1992  [Lawn-Mowing: 1995—]
		Rio de Janeiro	Rent Extraction (Numbers Racket): —1970s	Crackdown: 1980s-2008  [Post-Pacification: 2014—]	GPAE (Localized): 2001-2003  Pacification: 2008-2013
	Mexico	Interregnum: 1990s-2004	State-Sponsored Protection Racket: —1990s	Limited Crackdown: 2004 Full Crackdown: 2006—	[Focus on Zetas (Navy only): 2011-2013]

TABLE 1.1 Predicted Effects of Policy Types on Anti-State Violence and Observed Outcomes.

1

# What to do? The case of Medellin (Colombia)

Figure 1: Combo census: Estimated locations, with barrio

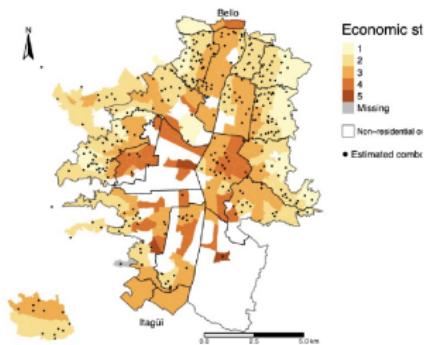
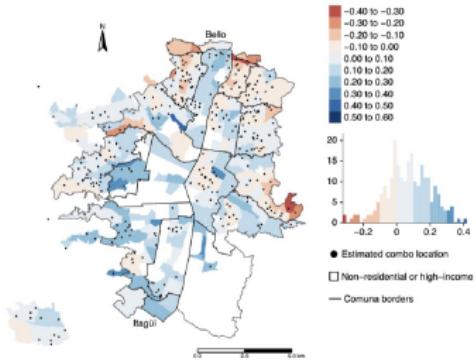
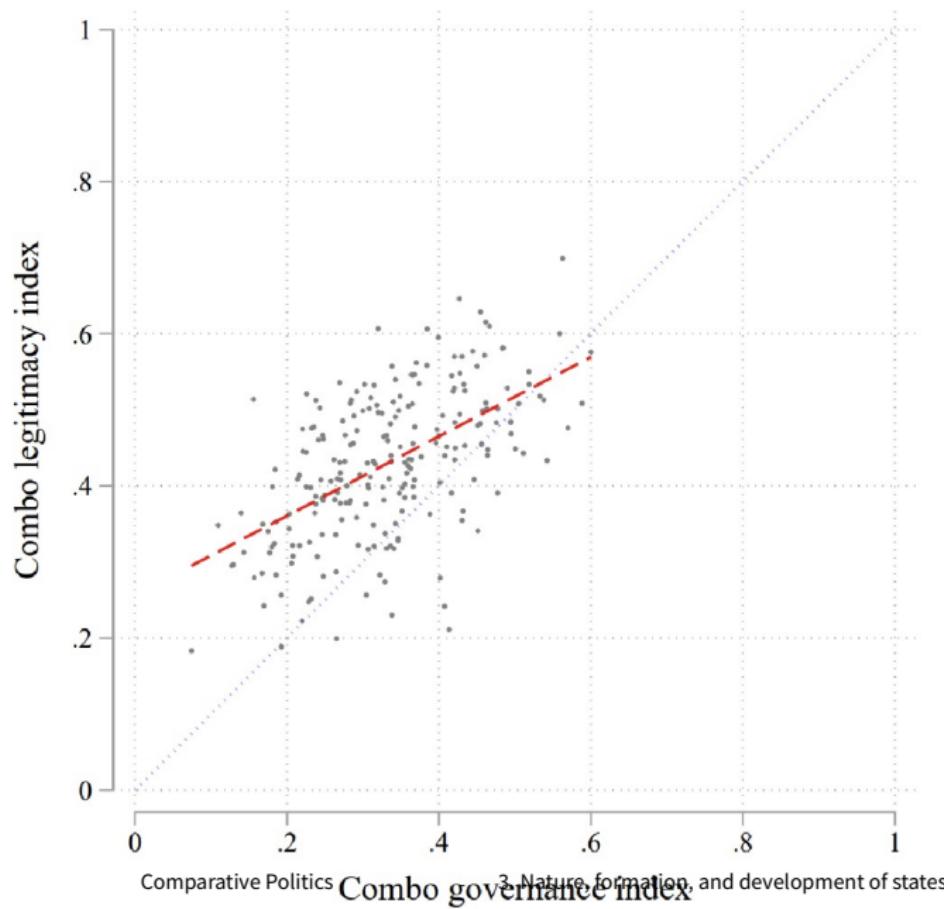


Figure 2: Relative state governance by barrio, 2019



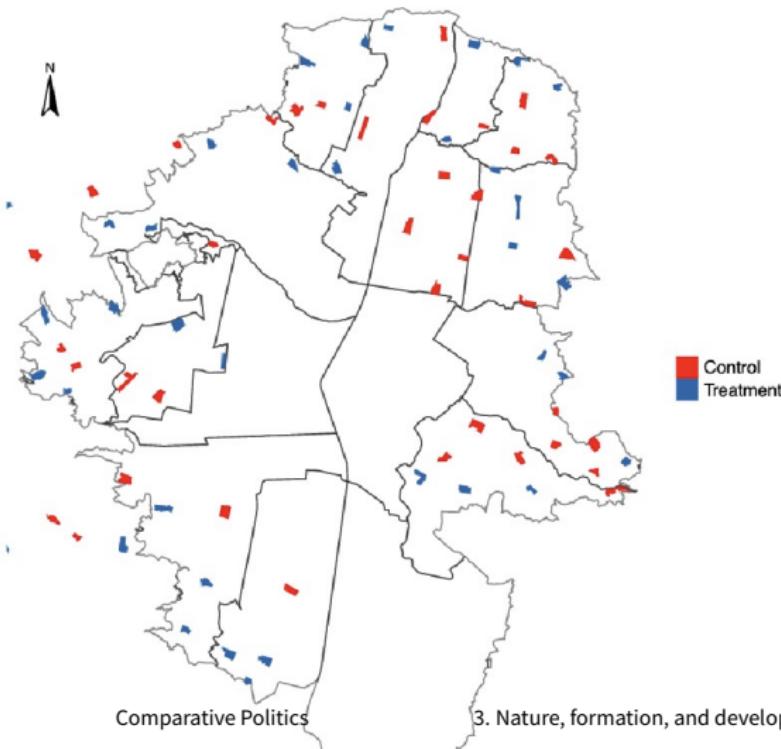
*Notes:* Each barrio's value is the average relative state governance (state-combo governance index) for all 17 items from Table 2. We did not survey high-income barrios.

# What to do? The case of Medellin (Colombia)



# What to do? Randomized experiment in Medellin (Colombia)

Figure D.1: Treatment and control sectors



# What to do? Randomized experiment in Medellin (Colombia)

Table 6: Program impacts on primary and secondary outcomes

	Control	Mean	ATE	SE	P-value	ATE as % of SD	N
	(1)	(2)	(3)	(4)	(5)	(6)	
Relative State Governance Index	0.066	-0.028*	0.015	0.064	-0.088	2,314	
State Governance Index	0.413	-0.017*	0.010	0.089	-0.065	2,362	
Combo Governance Index	0.345	0.009	0.011	0.414	0.032	2,316	
Relative State Legitimacy Index	0.131	0.012	0.019	0.550	0.037	1,845	
State Legitimacy Index	0.572	0.012*	0.007	0.094	0.060	1,906	
Combo Legitimacy Index	0.437	0.002	0.015	0.874	0.009	1,845	

# Wrap-up

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