### Political Distortions and Economic Development The 31<sup>st</sup> Simon Kuznets Memorial Lecture March 31, 2022 #Kuznets2022

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Princeton University, African School of Economics, & NBER

I have been interested in studying and "doing something about" political distortions since middle school.



First as a pro-democracy activist (1983)

Lement : You should show this to and discuss it with buly

Political Mechanisms in Economic Development: A Game-Theoretic Analysis.

Houantchekon, Leonard

March 11, 1993

The failure to understand fundamental politico-economic mechanisms ... is worldwide ... We understand liberal democracy so poorly that we do not know why is it that liberal democracy has arisen only in nations that are market-oriented, not in all of them but only in them ... India's difficulties in economic development are in part consequences of their leaders's inability to understand that growth requires growth mechanisms: if not the market, which Indian policies cripples, then the authority of the government that they have chosen to ignore.1

Although it is now widely accepted that economic performance depends critically on the existence of a "bad" or a "good" government, the clarification and evaluation of politico-economic mechanisms remain a challenge for economists and political scientists. This is the purpose of the emerging discipline of Positive Political Economy. That is, the study of rational decisions in the context of the political and economic institutions. This paper aims to contribute to this literature. We provide a model of rational economic and political agents to address the following issues: what is the impact of political institutions on investment and capital accumulation? How does politics affect public investment in education? In our model, firms engage in a capital accumulation game and compete as economic interest groups for political influence. Political parties get financial contributions and bribes from interest groups to produce "policy positions", and compete for vote shares in elections. When elected, they implement public policies. Consumers' tastes affect the demand for goods produced by firms and their policy preferences partly determine the composition of the legislature.

1 From " Politics and Markets", Lindblom Charles, pp 5-6

#### Then as first year PhD student at Northwestern (1993)

### Introduction

Theoretical Benchmarks

Political Distortion
Voter-Induced Distortion: Patronage
Firm-Induced Distortion: Political Connections
State Capture



Future Directions

## Introduction

### Background

- Differences in living standards across countries are large and persistent, linked to different growth trajectories.
- Differences also driven by productivity gaps and misallocations.
- **Stylized fact:** Disparities in capital and labor account for at most 50% of the differences in income-per-capita (Klenow and Rodriguez-Clare, 1997; Hall and Jones, 1996; see Caselli, 2005 for a review).
- The gap in GDP per worker between richer and poorer countries is mostly due to differences in TFP. 
   • Jones 2016 (table)
   • Jones 2016 (graph)
   • Jones 201

## Accounting for differences in TFP through political institutions

 Recent macroeconomics literature emphasizes the role of misallocation of production factors at the micro level (Banerjee and Duflo, 2005; Restuccia and Rogerson, 2008; Hsieh and Klenow, 2009).

"If resources are allocated optimally, the economy will operate on its production possibilities frontier and when resources are misallocated, the economy will operate inside this frontier." (Jones 2016)

- Government policies shape the allocation of inputs across heterogenous producers via idiosyncracies in prices, contract enforcement, and selecting public office holders.
- Implication: there exists a first-best benchmark affected by distortions.

## A step back: political institutions as the fundamentals of development

- "The factors we have listed (innovation, economies of scale, education, capital accumulation, etc.) are not causes of growth; they *are* growth" (North and Thomas 1973).
- All these ingredients of the aggregate production function are shaped by institutions (e.g., Hall and Jones 1999; Acemoğlu et al. 2014).
- Political institutions affect development through their influence on governance and state capacity (e.g., Besley and Persson 2009).
- They define mechanisms for the selection of office holders, the menu of policy decisions they could take, and the logic of enforcement of said policies (Myerson 1985).

### What institutions?

- Acemoğlu and Robinson (2016): political institutions associated with economic institutions that promote prosperity emerge from a balanced increase in state capacity and the distribution of power.
- But whole sectors of society without power leave us very far from actually *inclusive* institutions. This has distributive consequences (e.g. Alesina and Rodrik 1994)
- We need to design political institutions that allow for the "disempowered to act as principal": institutions that are "both accountable to the needs of the poor and have the capacity to meet those needs" (Page and Pande 2018).

• The poor live in less egalitarian democracies

Women are less empowered in developing regions

## The shadow of history

- A robust research program has focused on the role of historical institutions in economic outcomes:
  - Colonial/Precolonial Institutions (e.g., La Porta et al. 1998; Acemoğlu et al. 2001, 2002, 2012; Dell 2010)
  - Fractionalization and heterogeneity of ethnicities and culture (e.g., Alesina and La Ferrara, 2005; Michalopoulos and Papaioannou, 2013)
- The literature has given us tremendous insights on the origins of institutions and its effects on development...
- ... but it has limited policy implications, and could be misread as historical determinism.

## The (limited) shadow of history

- Acemoğlu, Robinson and coauthors: Historical conditions can explain at most 50 percent of current institutions.
- Nunn and Wantchekon (2011): Slavery only explains 15–25 percent of the variation in current trust levels.
- Michalopoulos and Papaioannou (2013): Pre-colonial institutions might explain less than 10 percent of the variation in current economic outcomes.
- Davis and Weinstein (2002): We cannot overlook that some other, hardly studied, factors also contribute to persistence without institutions.

### Converging to convergence

- Finally, there are large variations in economic and political outcomes within countries/regions that had the same historical institutions...
- ... and a trend towards convergence between richer and poorer countries, not only on growth rates and income, but also on proximate causes human capital and policies and fundamentals institutions and culture (Kremer et al. 2021).

### Convergence in institutions

Canen and Wantchekon 2022



### This lecture

Rather than asking whether institutions contribute to growth, we need to examine what *type* of institutions are most effective for growth...

- ... and *how* they can be implemented.
  - The role of **counterfactual policies**.
  - The role of institutional experimentation.

For instance: antitrust laws, decentralization, policy deliberation, etc.

**Example**: In 1975, China was underdeveloped due legacies of absolutism, and the cultural revolution (Mühlhahn, 2019), but nearly all studies now emphasize institution reforms: public management decentralization and policy experimentation (Xu, 2011; Wang and Yang, 2022).

## The concept of political distortions

#### What is a **political distortion**?

When a political system induces choices that are suboptimal in terms of welfare and development outcomes.

They affect:

- Human capital formation and innovation
- Capital investment.
  - Regulatory policies, procurement, etc.
- Spatial frictions and misallocation.
  - Infrastructure spending, market distortions, etc.

They can be complementary to other distortions in development and macroeconomics (transportation, information frictions, market access).

## Outline

- We will briefly discuss benchmark growth models which allow for a role of politicians and government, with:
  - Public investment (Barro, 1990)
  - Innovation and technological change (Aghion et al., 2015; Acemoğlu and Robinson, 2006)
- We will present departures from those benchmarks (political distortions).
- We will document how they lead to:
  - Misallocation of public investment, and
  - State capture.
- We will discuss what policies seem to alleviate these distortions.

## Theoretical Benchmarks

### Models with public investment Barro 1990

Barro (1990) constructs a growth model that includes public services as a productive input for private producers. • Technical details

- Focus on publicly-provided goods that are subject to congestion which are rival but to some extent non-excludable (includes highways, water and sewer systems, courts, and so on).
- An individual's decision to expand own capital and hence output congests the facilities available for other producers.
- The growth rate in a decentralized economy is suboptimal. So the model favors income taxation over lump-sum.
- Conclusion: Growth is endogenous, affected by production taxes.
- **Corollary:** Distortions in growth when investments/taxes are targeted to co-ethnics.

## Models with innovation and market competition Aghion, Akciğit, and Howitt 2015

Aghion, Akçiğit, and Howitt (2015) give a Schumpeterian growth model in which firms innovate until they succeed, and then block others' market entry.

Setup:

- Let final output  $Y_t = A_t$ , where  $A_t$  is the technology.
- There are  $\mu$  advanced sectors, where innovation may happen; and  $1 \mu$  backwards sectors (where  $A_t = A_{t-1}$ ).
- In each advanced sector j only one incumbent  $I_j$  and one potential entrant  $E_j$  are active in each period.
- Only the potential entrant innovates.

## Models with innovation and market competition

Aghion, Akçiğit, and Howitt 2015

- **Innovation:** Before production, potential entrant  $E_j$  invests in R&D in order to replace the incumbent  $I_j$ .
- If successful, productivity of sector j increases by factor  $\gamma$  and new entrant is monopolist.
- Otherwise, the current incumbent remains monopolist at productivity  $A_{j,t} = A_{j,t-1}$ .
- If a potential entrant  $E_j$  spends  $A_t \lambda z_{jt}^2/2$  in R&D in terms of the final good, then she innovates with probability  $z_{jt}$ .
- The entrant picks innovation effort to maximize expected profits  $\pi$ .
- **Political economy:** Democracy level  $\beta \in [0, 1]$  equals probability that successful innovation leads to successful entry.
- The joint probability of an an unblocked entry is  $\beta z_j$ .

# Models with innovation and market competition Aghion, Akciğit, and Howitt 2015

Equilibrium:

- Innovation effort  $z_{jt} = \bar{z} = \beta \pi / \lambda$  is increasing in democracy  $\beta$  and profit  $\pi$  is decreasing in R&D cost  $\lambda$ .
- Average productivity growth

$$rac{\mathcal{A}_t-\mathcal{A}_{t-1}}{\mathcal{A}_{t-1}}=\gammarac{\mueta z(\gamma-1)+1}{\mu(\gamma-1)+1}$$

is also increasing in democracy, and democracy is more growth-enhancing closer to the frontier.

More technical details

# Models with innovation and market competition Aghion, Akciğit, and Howitt 2015

More evidence:

- Aghion, Alesina, and Trebbi (2007) give empirical cross-country evidence.
- This model is consistent with Acemoğlu and Robinson (2006):
  - Political elites may block technological innovation, for fear they will reduce their terms in power.
  - Blocking technological innovation entrenches politicians and keeps less productive firms in power ⇒ welfare losses.

## Taking stock of the theoretical benchmarks

- Other benchmarks:
  - Models with redistribution (Alesina and Rodrik, 1994)
  - Models with expropriation and contract enforcement (Aguiar and Amador, 2011)
- The previous models showcase that such political economy incentives can meaningfully distort economic outcomes and welfare.
- Even in these simple environments, there are effects on:
  - Economic growth and consumption
  - Debt profiles
  - Technological innovation
  - Firm productivity

## Empirical questions from these benchmarks

- How does democracy affect public investment?
- How do political connections affect innovation, market competition, and procurement?
- What are the quantified GDP and welfare losses?
- What type of policies can curb such distortions?

We will look at distortions in public investment, market competition, property rights enforcement driven by democratic breakdown, political connections, or weak courts.

## Political Distortion

Voter-Induced Distortion: Patronage

Burgess, Jedwab, Miguel, Morjaria, & Padró i Miquel 2015

How does democracy affect targeted redistribution to co-ethnics?

- We will study Burgess et al. (2015) as an example: transitions of democracy and autocracy in Kenya.
- Effects on road expenditure on co-ethnic districts.
- The effects are present in autocracy (1969–1992), but disappear in democratic times.
- In other contexts e.g. Anderson et al. (2015), Bobonis et al. (2017), Beg (2021), evidence of political redistribution as insurance to vulnerable clients for political favours.
- Evidence in the US on political allocation of benefits to winners/access etc.

Burgess, Jedwab, Miguel, Morjaria, & Padró i Miquel 2015



Burgess, Jedwab, Miguel, Morjaria, & Padró i Miquel 2015



Benefits to co-ethnics mostly during dictatorship (between solid red lines)



Welfare: public investment would have been different, absent distortions.

### Ghana: Private investment Goldstein and Udry 2008

Question:

- How do property rights affect investment decisions?
- Most studies had found weak impacts.

Context:

- Fallowing maize and cassava plots boosts subsequent yields.
- But in Eastern Ghana, individuals have  $\sim 1/3$  chance of losing control over a plot in any year in which it is not cultivated.

Methodology:

- Estimate effect of local socio-political position on fallowing decision, conditional on plot characteristics and **household fixed effects**.
- Estimate effect of fallowing (instrumented by socio-political position) on productivity.

### Ghana: Private investment Goldstein and Udry 2008

Results:

- "[T]hose who hold a local social or political office fallow their land longer than others in their households and, as a consequence, achieve higher profits."
- True for both inherited and merit-based offices.
- Larger effect for plots obtained through political processes.
- Women are especially penalized, and not only because they rarely held offices.
  - Mean productivity: 600,000 GHC/ha.
  - Gender gap: 900,000 GHC/ha.

# Pakistan: Patronage and paternalism Beg 2021

- Economic dependency of rural workers on landed elites. Paternalistic ties.
- Workers value risk-sharing due to volatility in agricultural income.
- Evidence for greater consumption by client households. Patrons offer risk mitigation mechanisms to gain voters' support.
- The paternalistic incentives of landlords are strongest when land productivity is low and the efficiency cost of sharecropping is low.
- Changing agricultural technology undermines their paternalistic ties with tenants.

#### Firm-Induced Distortion: Political Connections

### Indonesia: Effect of connections on share price Fisman 2001

- Leaders can allocate and target benefits if they win. How to measure?
- Fisman (2001) is a first and salient approach:
  - Focus on Indonesia, and the effect of events of Suharto's poor health on connected firm's stock/security prices (dependent variable).
  - Measure connections based on specialist's "index" of firm's reliance on political connections (independent variable).

	Jan. 30-Feb. 1,			July 4-9,		April 1–3, 1997
	1995	April 27, 1995	April 29, 1996	1996	July 26, 1996	
POL	-0.58* (0.34)	-0.31 (0.18)	-0.24* (0.15)	-0.95*** (0.27)	-0.57*** (0.22)	-0.90** (0.35
Constant	1.29 (0.79)	0.21 (0.32)	0.12 (0.46)	0.83 (0.64)	-0.07(0.41)	0.77 (0.97)
$R^2$	0.037	0.043	0.025	0.147	0.078	0.075
Observations	70	70	78	79	79	79

### Cross-country: Prevalence of political connections Faccio 2006

- The previous results are widespread.
- Faccio (2006): Descriptive dataset on 20,202 publicly traded firms across 47 countries.
- Connections with a politician defined as: One of its largest shareholders (≥ 10% control) or top officers (e.g. CEO) is an MP, minister or closely related to one (e.g. family ties, previous experience in that firm).
- Connections are common in 35 of 47 countries, especially those with high corruption.
#### Italy: Effect of connections on innovation

Akçiğit, Grigsby, Nicholas, & Stantcheva 2018

- Firm level data from Italy with firm connections to politicians (i.e. local politicians working at a specific firm)
- Model with similar considerations as the Schumpeterian ones above, but firm heterogeneity etc.
  - Larger firms are more likely to be connected (as it is costly), older (since they are less likely to exit), but less innovative.
  - Less innovative even though connections reduce their costs.
  - Supporting evidence using micro-level admin data on firms and politicians in Italy, exploiting an RDD on close elections (i.e. comparing connected firms who barely won vs. those who barely lost).

Key mechanism: An incumbent firm can choose to entrench itself by investing in political connections to deter the innovators' entry. Industries with more political connection have less innovation, older firms and less productivity growth.

#### How do political connections generate distortions?

- The previous slides suggest connections are widespread, and firms benefit from them.
- The recent literature has gone further: how do those benefits come about?
- Let us overview two mechanisms: preferential lending and public procurement.
  - Possibly large welfare costs: government spending more for the same (or poorer quality) of services.
  - It has been shown in many contexts (e.g. US Jayachandran (2006), Brazil Arvarte et al. (2019), Russia, etc.).
  - Today we will focus on evidence in Pakistan and Lithuania.

## Pakistan: Effect of connections on lending

Khwaja and Mian 2005

- Firms with a politician board-member:
  - Receive 42% larger loans
  - Have 50% higher default rates
- Effect driven entirely by government banks (no effect from private banks).
- Preferential treatment increases with political strength and decreases with electoral awareness:
  - Larger loans for firms with stronger (victory margin, etc) politicians, and when its politician wins.
  - PC firms get larger loans from government banks when its politician is from a constituency with low electoral participation
- Data rejects a "Social" interpretation of the results above
- Economy-wide annual costs:
  - Lower bound: 0.15 0.3% of GDP
  - Higher estimate: additional 1.6% of GDP.

# Lithuania: Effect of connections of procurement

Baltrunaite 2020

- A campaign contribution ban was implemented in Lithuania in 2012.
- Contrast contributors' bidding behavior and probability of winning contracts to noncontributors.



## Lithuania: Effect of connections of procurement

Baltrunaite 2020

- Empirical Strategy: Difference-in-differences design.
- **Identifying Assumption**: Contributing and non-contributing firms would have had the same change in procurement behavior absent the ban.

TABLE 3. Main results.						
	Winner					
Dependent variable	(1)	(2)	(3)	(4)	(5)	(6)
Contribute	0.094*	0.065**	0.066**			
	(0.048)	(0.028)	(0.028)			
Contribute × Ban	-0.041*	$-0.044^{***}$	$-0.051^{***}$	$-0.042^{***}$	$-0.048^{***}$	-0.056**
	(0.021)	(0.017)	(0.017)	(0.014)	(0.015)	(0.022)
Contribute × Placebo						0.021
						(0.029)
Procurement controls	х	х	х	х	х	X
Firm controls		х	x			
Industry FE × Year FE			х		х	Х
Firm FE				х	х	х
$R^2$	0.08	0.09	0.09	0.16	0.15	0.15
N	596,039	575,835	575,835	593,477	575,527	575,527

#### Effects of connections on other outcomes

#### Access to credit/finance:

- Increase in probability of bailouts in the U.S. (Faccio et al., 2006).
- Increase in loans from state banks in Brazil (e.g. Claessens et al., 2008), among many other effects.

#### **Returns:**

- Lower taxation (Francis et al., 2016).
- Easier access to import licenses (Mobarak and Purbasari, 2006).
- Regulatory capture and effects on energy subsidies, among others (e.g. Dal Bo et al., 2006)

Typically, one can measure such connections either through hiring practices, or campaign contributions. For the latter, beyond Baltrunaite (2020), see also Boas et al. (2014) in Brazil.

#### State Capture

#### Elite capture and "crony capitalism"

Distortions can be systemic and entrenched – and there can be a "distortion-trap" – even in democracies with competitive elections.

- So far, we have focused on "short-term" and "micro"-level distortions.
- But such avenues can be entrenched and long-lasting, permeating the political system.
- Crony capitalism is a system of "structural" political distortions.
- Political connections are nearly universal. Firms are owned and/or managed by political or military elites.
- Legacy of the developmental states in Asia, North Africa (Egypt, Syria, Indonesia, ...). Hybrid systems such as China (Bai, Hsieh and Song, 2020).

• Economist figure

#### The forms of state capture

- State capture (i.e. firms influencing state policy to their benefit) is widely prevalent, affecting economic policies, welfare and trust in institutions.
- It also exists in many distinct forms.
  - Gupta brothers in South Africa "effectively [seized] control of the state apparatus".

They obtained government contracts after appointing members of the National Treasury, and possibly the Finance Minister himself.

Bolloré scandals in Togo and Guinea

#### Direct and indirect capture Canen, Ch. & Wantchekon 2021

Canen et al. (2021) studies the choice between:

- **Direct** forms of capture: those that grant firms direct control over tenured state government officials in charge of implementing policy (i.e. bureaucrats).
  - e.g. patronage, bureaucrat capture
- **Indirect** forms of capture: those that grant control of bureaucrats indirectly, that is through elected officials such as mayors who then influence bureaucrats.
  - e.g. lobbying, charitable contributions to politicians

# Effect of electoral competition on firms' choice of capture Canen, Ch, & Wantchekon 2021

With higher electoral uncertainty, direct forms of capture increase.

	Dependent variable: direct capture index						
	Commune election				Legislative election		
	(1)	(2)	(3)	(4)	(5)	(6)	
Winning margin (1st-2nd runner)	-0.2156*** (0.0677)	-0.4886*** (0.1040)	-0.4696*** (0.1379)		0.0849 (0.1303)	0.0723 (0.1634)	
Winning margin (2nd-3rd runner)				0.0653 (0.1879)			
Observations	112	112	112	94	96	95	
R-squared	0.047	0.180	0.260	0.229	0.107	0.136	
Politician Controls			$\checkmark$	$\checkmark$		$\checkmark$	
Commune Controls	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			
Department FE			$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
SE Department-level	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	

Notes: Standard errors in parentheses are clustered at the department level

# Effect of electoral competition on firms' choice of capture Canen, Ch, & Wantchekon 2021

**The model provides a mechanism:** Direct control acts as an insurance mechanism for the firm.

- It increases the probability firm receives (already paid for) market distortions.
- This insurance is more valuable the higher the electoral uncertainty: insurance pays only if the incumbent is displaced.

#### Democracy and electoral competition is not a panacea Canen, Ch, & Wantchekon 2021

Summary of the Comparative Statics/ Counterfactuals					
	(	Counterfactual			
	Improved Bureaucrat Selection	Increased Electoral Competition	Improved Politician Selection		
Change in Market Distortions	0	0	(-)		
Change in Direct Control	(–)	(+)	(–)		

- Electoral Competition: May not be sufficient to curb distortions, as firms reoptimize using new margins.
  - Electoral competition is not a sufficient mechanism to curb on government control, when firms can switch forms of capture.

a Comparative Statics / Counterfactuals

#### Democracy and electoral competition is not a panacea Canen, Ch, & Wantchekon 2021

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- Electoral Competition: May not be sufficient to curb distortions, as firms reoptimize using new margins.
  - Electoral competition is not a sufficient mechanism to curb on government control, when firms can switch forms of capture.
- Politician Selection: A solution, but how to implement?
  - Grassroots, consumer advocacy, etc.

#### Remedies

A simple implication from these results would be that banning political connections, or lobbying, would be beneficial.

- Theoretical support: Ashworth (2006), Coate (2004), Prat (2002), ...
- Empirical support: Baltrunaite (2020), Avis et al. (2022), Gulzar et al. (2022),

. . .

• Campaign finance rules around the world

#### Public management

- Increased transparency
  - Audits on government contracts (e.g. Ferraz and Finan, 2008, 2011) and taxes (e.g. Shimales et al., 2017)
    Brazil audits graph
  - Monitoring that discloses losses to consumers given political agents behavior (e.g. Olken, 2007; Duflo, 2018)
  - Banerjee et al. (2022): Anticipation of disclosure causes politicians to shift public investment.
- Technology
  - ID cards (Muralidharan et al., 2016; Banerjee et al., 2018), digital collection (Ali et al., 2014), e-invoicing (Banerjee et al., 2020), voting (Fujiwara, 2015)
- Regulatory reform (Laffont and Tirole, 1993)
- Public procurement (Bosio et al., 2020)

Overall: Public management is effective in limiting political distortions.

#### Political selection: Demand for good types

Information provision to - and impact on - voters:

- Once considered a promising avenue of research (Pande 2011). But evidence is mixed.
- Chong et al. (2015): Information about corruption decreases incumbent party support, voter turnout and support for the challenger party, as well as erodes partisan attachments.
- Arias et al. (2022): Given voters' low expectations, relatively severe malfeasance revelations increased incumbent vote share on average.
- Cruz et al. (2021): "Clear" campaign promises are more likely to vote for candidates with policy promises closest to their own preferences. Those informed about current and past campaign promises reward incumbents who fulfilled their past promises; they perceive them to be more honest and competent.
- Dunning et al. (2019): No overall evidence on the effect of a "typical" nonpartisan information campaign on voting behavior.

Overall: The effect of information provision depends on the type of information, its relevance, and the power to act on it (Kosec and Wantchekon 2020)

### Political selection: Supply of good types

More innovative interventions do show that changing the supply of politicians is possible.

- Deliberation/Town-hall meetings (Bidwell et al., 2021; Fujiwara and Wantchekon, 2013)
  - Casey et al. (2021) partnered with 2 major political parties in Sierra Leone to experimentally vary how much say voters have in selecting parliamentary candidates.
  - Estimates suggest that more democratic procedures increase the likelihood that parties select voters' most preferred candidates and favor candidates with stronger records of public goods provision.
- Non-financial considerations (Francois, 2000; Dal Bo et al., 2013)
  - In Gulzar and Khan (2021), experimentally varied how political office is portrayed to ordinary citizens.
  - Candidacy decisions explained by social influence, not information salience, suggesting non-financial motivations for political entry shape how politicians perform in office.

#### Political selection: Gender dimensions

Gender quotas are a stark case of supply-side political selection.

- Chattopadhyay and Duflo (2004): Gender quotas affected public good provision. Women leaders invest more in infrastructure favored by women.
- Besley et al. (2017): Gender quotas raised competence of male leaders.
- Beaman et al. (2009): Exposure to women leaders via a quota improved perception of effectiveness of women leaders.

#### Public reason and social contracts

- **Theory:** "The liberal ideal of public reason holds that those advocating for laws (policies) ought to offer adequate supporting reasons that could be shared by all reasonable members of the political community" (Macedo, 2011)
- Evidence: Participative Governance
  - Literature on participatory governance shows mixed results on a range of political economy outcomes (Casey, Glennerster, & Miguel, 2011; Chaudhury & Parajuli, 2010; Duflo, Dupas, & Kremer, 2008: Humphreys, De la Sierra, & Van de Walle, 2012; & Olken, 2008; see Casey (2008) for a review).
  - Besley et al. (2005) show that the more disadvantaged attend the most and get the most.
  - However the process of decision-making is still a black box. (See Bosancianu et al. (2022) for a recent effort in disentangling different dimensions of political inequality.)

▶ Literature

### Institutional experimentation in Nigeria

**RISE Nigeria** is evaluating the impact of two stage policy deliberation and social contracts between stakeholders in education on behavioral change, education investment and outcomes

Intervention components:

- Information gathering and dissemination on policy preferences
- Deliberation through the organization of Education Summits
- Drafting and signing of a "Social Contract"

#### ▶ Slides

#### **Future Directions**

#### Future directions

- Development of a unified and yet flexible endogenous growth models with generic institutions, quantifiable with newly available data.
  - Would incorporate features of public finance, contract enforcement and democratic governance (e.g. political competition)
  - These models would generate socially optimal allocation of public investments, forms or levels of political connections or state capacity
  - Measuring political distortions/crony capitalism and their welfare effects. For instance, political connections might lead to misallocation of talent through aspiration failures.

#### A research agenda for political economy

The consequences for human welfare involved in questions like these are simply staggering: Once one starts to think about them, it is hard to think about anything else.

- Robert Lucas, Jr., On the Mechanics of Economic Development (1988)

#### A research agenda for political economy

#### Political Mechanisms in Economic Development: A Game-Theoretic Analysis.

Houantchekon, Leonard

March 11, 1993

The failure to understand fundamental politico-economic mechanisms...is worldwide... We understand liberal democracy so poorly that we do not know why is it that liberal democracy has arisen only in nations that are market-oriented, not in all of them but only in them... India's difficulties in economic development are in part consequences of their leaders's inability to understand that growth requires growth mechanisms: if not the market, which Indian policies cripples, then the authority of the government that they have chosen to ignore.<sup>1</sup>

▶ Full paper

## Appendix

### Basic development accounting

Jones 2016

	GDP per worker, y	Capital/GDP $(K/Y)^{\alpha/(1-\alpha)}$	Human capital <i>, h</i>	TFP	Share due to TFP
United States	1.000	1.000	1.000	1.000	-
Hong Kong	0.854	1.086	0.833	0.944	48.9%
Singapore	0.845	1.105	0.764	1.001	45.8%
France	0.790	1.184	0.840	0.795	55.6%
Germany	0.740	1.078	0.918	0.748	57.0%
United Kingdom	0.733	1.015	0.780	0.925	46.1%
Japan	0.683	1.218	0.903	0.620	63.9%
South Korea	0.598	1.146	0.925	0.564	65.3%
Argentina	0.376	1.109	0.779	0.435	66.5%
Mexico	0.338	0.931	0.760	0.477	59.7%
Botswana	0.236	1.034	0.786	0.291	73.7%
South Africa	0.225	0.877	0.731	0.351	64.6%
Brazil	0.183	1.084	0.676	0.250	74.5%
Thailand	0.154	1.125	0.667	0.206	78.5%
China	0.136	1.137	0.713	0.168	82.9%
Indonesia	0.096	1.014	0.575	0.165	77.9%
India	0.096	0.827	0.533	0.217	67.0%
Kenya	0.037	0.819	0.618	0.073	87.3%
Malawi	0.021	1.107	0.507	0.038	93.6%
Average	0.212	0.979	0.705	0.307	63.8%
1/Average	4.720	1.021	1.418	3.260	69.2%

The product of the three input columns equals GDP per worker. The penultimate row, "Average," shows the geometric waverage of each column across 128 countries. The "Starte due to TPF" column is compared as described in the text. The 69.2% have in the last row is computed looking across the columns, ie, as approximately 3.5/(3.5 + 1.5). Some: Computed using the Penn World Table 8.06 for the year 2010 assuming a common value of  $\alpha = 1/3$ .

# How much GDP is explained by TFP Jones 2016



For the richest countries as a whole, TFP contributes around 50% of the differences in GDP.

Back to Background

# The poor live in less egalitarian democracies Pande 2020



Back to What institutions?

#### Women are less empowered in developing regions Norris 2020



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Source, Varieties of Democracy V10.0 (July 2020)

Back to What institutions?

## Barro (1990)

Government services in an A - K model:

• Under a standard A - K framework with CARA preferences,  $\rho$  discount factor and A TFP, the growth rate of consumption is:



• Suppose public services g are supplied to households and are an input to private production together with capital (k) - i.e.:

$$y = k\phi\left(\frac{g}{k}\right),$$

and government expenditure is financed through a flat income tax:

$$g = \tau y = \tau k \phi \left(\frac{g}{k}\right)$$

• The (second-best/decentralized) growth rate of consumption is then:

$$\frac{\dot{c}}{c} = \frac{1}{\sigma} (\underbrace{(1-\tau)\phi\left(\frac{g}{k}\right)(1-\eta(k))}_{\text{Private Marrian Bature to Conital}} -\rho),$$

Private Marginal Return to Capital

where  $\eta$  is the elasticity of y relative to g, given k.

 In this framework, improved property rights or tax systems are interpreted by investors as a decrease in marginal tax rates.

Back to Benchmark 1

#### Effects of improvement in property rights on growth



Decrease in  $\tau$  means shift of solid curve ( $\gamma$ ) towards dashed ( $\gamma_L$ ) curve.

### Aguiar and Amador (2011): Overview

• Small open economy with government, workers and firms

- Single, tradable good with price one
- Faces constant world interest rate: R = (1 + r) > 1

Workers:

- Supply labor inelastically
- Have preferences:

$$\sum_{t=0}^{\infty}\beta^{t}u(c_{t})$$

Consumption decisions controlled by government:  $c_t = w_t + T_t$ 

#### Firms

- Owned by capitalists and operate a deterministic, neoclassical production function f(k, l)
- Capital sunk within a period
- Hire workers in competitive labor market:

$$f_l(k_t, l_t) = w_t$$

- Face tax on capital income  $\tau$ , opportunity cost of capital: r + d
- Firm's first order condition for capital:

$$(1-\tau_t)f_k(k_t,l_t)=r+d$$

• First best capital  $k^*$ :  $f_k(k^*, 1) = r + d$ .
## Political Economy in Aguiar and Amador (2011)

- N parties, probability  $p = \frac{1}{N}$  of getting to power at any t
- Assumption:
  - $ilde{ heta} u(c)$  when in power,  $ilde{ heta} > 1$
  - u(c) when out of power
- Expected utility when in power (deterministic  $c_t$ ) can be rescaled as:

$$W_t = \frac{\tilde{W}_t}{p\tilde{\theta} + 1 - p} = \theta u(c_t) + \beta \underbrace{\sum_{s=t+1}^{\infty} \beta^{s-t-1} u(c_s)}_{\equiv V_{t+1}}$$

• disagreement parameter:  $heta\equiv ilde{ heta}/(p ilde{ heta}+1-p)\in(1, ilde{ heta})$ 

• Focus on self-enforcing, deterministic, "efficient", equilibrium of game between government and capitalists, solving for the equilibrium that:

$$V(b_0) = \max_{c_t, k_t} \sum_{t=0}^{\infty} \beta^t u(c_t)$$

subject to

$$b_0\leq \sum_{t=0}^\infty R^{-t}(f(k_t)-(r+d)k_t-c_t)$$

#### $\underline{W}(k_t) \leq W_t, \ \forall t$

where  $\underline{W}(k_t)$  is the "punishment" (payoff under financial autarky). multipliers:  $\mu_0$  and  $\lambda_t \mu_0 R^{-t}/\theta$ .

#### First Order Conditions



- Limited commitment links investment and debt:
  - a government that is deep into debt cannot credibly promise to respect property rights of capitalists
- With standard discounting: current incumbent willing to trade-off consumption today versus tomorrow at the interest rate.
- With political frictions: current incumbent is unwilling to do so (desire consumption in power).
- Greater political disagreement  $\Rightarrow$  slower convergence.

## Aghion, Akçiğit, and Howitt (2015) details

• The entrant picks innovation effort (probability) to maximize expected profits:

$$\max_{z_{jt}} \quad \left\{ z_{jt} \beta \pi Y_t - A_t \lambda \frac{z_{jt}^2}{2} \right\}$$

where  $\pi$  represents per unit monopoly profits.

• The average productivity of a country at the end of t is:

$$A_t = \mu \big[\beta z \gamma \bar{A}_{t-1} + (1-\beta z) \bar{A}_{t-1}\big] + (1-\mu) \bar{A}_{t-1}$$

• So average productivity growth is

$$rac{A_t-A_{t-1}}{A_{t-1}}=\gammarac{\mueta z(\gamma-1)+1}{\mu(\gamma-1)+1}.$$

#### Acemoğlu and Johnson (2005)

Importance of property rights institutions to economic growth, investment, financial development?

• Studies effect of "property rights institutions" / "contracting institutions"

$$Y_{c} = \alpha \times F_{c} + \beta \times I_{c} + Z_{c}' \times \gamma_{0} + \epsilon_{c}$$

- Variation: European Colonization
  - First stage relationship between Property rights institutions and determinants of colonization strategy resulting from disease environment, initial indigenous population (Mortality and Population Density)
  - $L_c$ : British Legal origin

$$F_{c} = \delta_{1} \times L_{c} + \eta_{1} \times M_{c} + Z_{c}' + \gamma_{1} + u_{1c}$$
$$I_{c} = \delta_{2} \times L_{c} + \eta_{2} \times M_{c} + Z_{c}' + \gamma_{2} + u_{2c}$$

- Property rights institutions have a first-order effect on long-run economic growth, investment, and financial development.
- Contracting institutions appear to matter only for the form of financial intermediation.

#### Results

TABLE 4 Contracting vs. Property Rights	Institutions	GDP per C	ipita and	Investmen	I-GDP Rat	lo (251.5)	TABLE 5 Contracting vs. Property Righ (28L8)	its Institut	ions: Privets	Credit and	Stock Mat	ket Capitali	artion
		Internet	r tos Picera	re Rora Is	STR. YORK				Increase	or no Pare	er Barn h		
	Log	Log	Log	Log	Log	Log		Log	Log	Log	Log	Log	Log
	Settler	Population	Settler	Settler	Settler	Settler		Settler	Population	Settler	Settler	Settler	Settler
	Martury	Density	Montally (a)	Martury	Montanty	Mortally		Mortality	Density	Mortality	Mortality	Mortality	Mortality
	(1)	(30)	130	60	(1)	(6)		00	(2)	(3)	(4)	(5)	(6)
	Pas	el A. Depen	dent Varia	ble: Log C	iDP per Ca	péta,		Pas	al A. Dopen	dent Verial	de: Credit I	o Privato S	ieter,
		,	ecces Ma	Bo or rains						Second St.	ago of a SLI		
Legal formation.	-95	008			-35	.85	Legal formation	68	08			04	.15
	0.840	(.21)			(35)	0.452		(.08)	(.06)			(.07)	(34)
Procedural complexity			.097				Procedural complexity			05			
			6.175							(.05)			
Number of procedures				.02			Number of procedures				440		
				(294)							(ma)		
Constraint on executive	<i>m</i>	.88	34	.88			Constraint on executive	117	37	.04	.09		
	(.29)	(.27)	6.185	(.23)				(10)	( (0)	(00)	( 00)		
Average protection against risk of					-99		Assesses protection praint risk of					- 4	
espropriation					(.36)		convertation					(.07)	
Private property						9-45	Printe property						.70
						(31)	Trising property						1 100
		Results in	liquivales	1 OLS Spe	effication				Perela	in Kashala	at OLE Sea	of Fronting	1.457
Measure of contracting institutions	16	13	050	013	.11	.01	Measure of contracting institutions						
	(.10)	(.10)	(.07)	(.009)	(.09)	(.10)							-,08
Measure of property rights institutions	-35		34	- 39	.65	.74		(.040	(.04)	0.0200	(1963)	(040	(.04)
	(.07)	(.07)	(.05)	(.04)	(.46)	(.14)	Presente of property rights internations	.00	100	.08	3079	-13	100
Observations	53	60	60	60	51	59	01	1.000	(100)	(00)	(00)	040	(.00)
	Pape	B. Depende	et Variab	le: Investo	nest-GDP	Ratio,	Observations	- 54	80				04
			iccord Sta	go of uSLS				Paper B. I	repension v	analaci sa	KK MADEL	Capitaliat	OD, SPORE
Legal formalism	80	-1.34			.47	3.61	Load formation			ing:	OL ESCO		
	(1.55)	(1.37)			0.660	(9.49)	Loga formation	35	- 14			10	.04
Freedural complexity			60					(107)	(.65)			(.07)	(.55)
			(1.10)				Procedural complexity			13			
Number of procedures				- 08						(.09)			
				6.201			Number of procedures				022		
Constraint on executive	4.70	4.84	4.83	4.06							(003)		
	(1.82)	(1.77)	(1.90)	(1.44)			Constraint on executive	-20	-13	.19	-14		
Assesses protection sealest risk of					4.68			(.09)	(.07)	[205]	(.08)		
expropriation					(5.13)		Average protection against risk of					-31	
Entrate property						13.05	expropriation					(.07)	
						(4.57)	Private property						-54
		Results in	Realizadore	101880		(447)							(.20)
Measure of contracting institutions									Results	in Equivale	#10L8 Spc	vification	
	-1.05	94	50	08		1.44	Measure of contracting institutions	17	-45	08	006	-15	08
Measure of any sector stable boothestown	0.00	0,00	1.403	0.073	0.70	1.040		(.04)	6.043	[.03]	(.904)	(.05)	(.04)
seasone or hockern utility manufactor	1.08	1.00		1.00	3,88	6.98	Measure of property rights institutions	-39	.04	.055	.05	.10	.21
(Geometrics)	0.379	630	1.480	6490		0.000		(.03)	(.03)	(.03)	(.03)	(.04)	(.06)
Care Friday	81	-70	- 00	- 01	16		Observations	- 59	59	. 59	- 59	50	51

- Contracting institutions and legal rules have some effect on stock market capitalization. Limited or no effects on major economic outcomes, including long-run growth, the investment to GDP ratio, and the overall amount of financial intermediation in the economy.
- Property rights institutions, which determine the degree to which the government, politicians, and elites are constrained in their relationships with the rest of the society, matter significantly for all these outcomes.
- Explanation: Individuals often find ways of altering the terms of their formal and informal contracts to avoid the adverse effects of weak contracting institutions but find it harder to mitigate the risk of expropriation

Back to Benchmarks

# Boehm, Oberfield (2020): Contract Enforcement

Court quality measure: average age of pending civil cases in each court

- Impacts on plant material cost, input bundles, vertical integration?
- Instrument to Factor Reverse Causality:
  - Speed of enforcement: ln(*court age*)
  - instrument for industry-level variable and court speed is industry-level variable  $\times \ln(\textit{court age})$



# Boehm, Oberfield (2020): Contract Enforcement

#### Results on Outcomes

Table I Materials Shares and Court Quality (Fact 1)							
	Dependent variable: Materials Expenditure in Total Cost						
	(1)	(2)	(3)	(4)	(5)	(6)	
Avg Age Of Civil Cases * Rel. Spec.	$-0.0167^{**}$ (0.0046)	$-0.0129^{*}$ (0.0051)	$-0.0118^{*}$ (0.0053)	$-0.0156^+$ (0.0085)	$-0.0201^{*}$ (0.0082)	$-0.0212^{**}$ (0.0078)	
LogGDPC * Rel. Spec.		0.0114 (0.0086)	$\begin{array}{c} 0.0102 \\ (0.0091) \end{array}$		$\begin{array}{c} 0.00710 \\ (0.0095) \end{array}$	0.00556 (0.0096)	
Rel. Spec. $\times$ State Controls			Yes			Yes	
5-digit Industry FE District FE	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	
Estimator	OLS	OLS	OLS	IV	IV	IV	
$R^2$ Observations	$0.480 \\ 208527$	$0.482 \\ 199544$	$0.484 \\ 196748$	$0.480 \\ 208527$	$0.482 \\ 199544$	$0.484 \\ 196748$	

Standard errors in parentheses, clustered at the state  $\times$  industry level.

 $^+ \ p < 0.10, \ ^* \ p < 0.05, \ ^{**} \ p < 0.01$ 

"Rel. Spec.  $\times$  State Controls" are interactions of trust, language herfindahl, caste herfindahl, and corruption with relationship-specificity.

Table II Input Mix and Court Quality (Fact 2)									
		Dependent variable: $X_j^R/(X_j^R + X_j^H)$							
	(1)	(2)	(3)	(4)	(5)	(6)			
Avg age of Civil HC cases	$-0.00547^{*}$ (0.0022)	$-0.00621^{**}$ (0.0023)	$-0.00530^{*}$ (0.0024)	$-0.0144^{**}$ (0.0044)	$-0.0146^{**}$ (0.0044)	$-0.0167^{**}$ (0.0045)			
Log district GDP/capita		-0.00389 (0.0045)	-0.00384 (0.0046)		$-0.00912^+ \ (0.0051)$	$-0.00980^+$ (0.0051)			
State Controls			Yes			Yes			
5-digit Industry FE	Yes	Yes	Yes	Yes	Yes	Yes			
Estimator	OLS	OLS	OLS	IV	IV	IV			
$R^2$ Observations	$0.441 \\ 225590$	$0.446 \\ 204031$	$0.449 \\ 199339$	$0.441 \\ 225590$	$0.446 \\ 204031$	$0.449 \\ 199339$			

Standard errors in parentheses, clustered at the state  $\times$  industry level.

<sup>+</sup> p < 0.10, \* p < 0.05, \*\* p < 0.01

"State Controls" are trust, language herfindahl, caste herfindahl, and corruption.

Table III Vertical Integration of Plants and Court Quality (Fact 3)								
	Dependent variable: Vertical Integration							
	(1)	(2)	(3)	(4)	(5)	(6)		
Avg Age Of Civil Cases * Rel. Spec.	$0.0195^+ \ (0.011)$	$0.0269^{*}$ (0.012)	$0.0280^{*}$ (0.012)	0.0292 (0.019)	$\begin{array}{c} 0.0314^+ \ (0.018) \end{array}$	$0.0368^{*}$ (0.018)		
LogGDPC * Rel. Spec.		$\begin{array}{c} 0.0464^{*} \ (0.022) \end{array}$	$0.0288 \\ (0.024)$		$\begin{array}{c} 0.0491^{*} \\ (0.023) \end{array}$	$\begin{array}{c} 0.0330 \\ (0.024) \end{array}$		
Rel. Spec. $\times$ State Controls			Yes			Yes		
5-digit Industry FE District FE	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes		
Estimator	OLS	OLS	OLS	IV	IV	IV		
$R^2$ Observations	$0.443 \\ 163334$	$0.451 \\ 156191$	$0.453 \\ 154021$	$0.443 \\ 163334$	$0.451 \\ 156191$	$0.453 \\ 154021$		

Standard errors in parentheses, clustered at the state  $\times$  industry level.

 $^+ p < 0.10, * p < 0.05, ** p < 0.01$ 

"Rel. Spec. × State controls" are interactions of trust, language herfindahl, caste herfindahl, and corruption with relationship-specificity.

Back to Contract enforcement

# The crony-capitalism index (The Economist)





Back to Crony capitalism

#### Campaign finance rules around the world

	Africa			Beyond Africa			
	Yes	No	No Data	Yes	No	No Data	
Ban on corporate donations to candidates	13.73%	78.43%	7.84%	26.36%	68.22%	5.43%	
Spending Limits	31.37%	60.78%	7.84%	55.81%	39.53%	4.65%	
Ban on donors participating in procurement	0.00%	37.25%	62.75%	5.43%	64.34 %	30.23%	

Back to Public management

#### In Avis et al. (2020), effects of audits larger in less corrupt municipalities.



Back to Public management

# Engaging Citizens: Results

#### **Table 1: Selected Participatory Governance Evaluations**

Study	Intervention	Intervention Outcome(s)					
Casey, Glennerster, & Miguel (2011)	Block grants for communities in Sierra Leona that promote democratic-decision making and inclusion	Material well-being, Institutions, Power dynamics	?				
Chaudhury & Parajuli (2010)	Transferred local school mgmt to the communities in Nepal	School access, Learning	?				
Duflo, Dupas, & Kremer (2008)	Community monitoring of teachers in Kenya	Teacher attendance, Student performance	$\checkmark$				
Humphreys, de la Sierra, & van de Walle (2012)	Organized elected village committees in the DRC that chose development projects	Governance, Gender inclusion, economic impacts	×				
Olken (2008)	Community participation in the monitoring of road projects in Indonesia	Corruption	×				
. What we are doin	g now? II. Why isn't it workin	ng? 🔰 🛛 🕅 . What shou	ld we do?				

Back to Public reason and social contracts