

A Theory of Power Structure and Institutional Compatibility: China vs. Europe Revisited

Ruixue Jia

Gérard Roland

Yang Xie

LSE/UCSD

UC Berkeley

UC Riverside

March 16, 2023

Comparative history in light of economics of institution

Inclusive, open-access, equal vs. extractive, limited-access, unequal societies

E.g., North (1989), North–Weingast (1989), Acemoglu et al. (2001, 2005),
North et al. (2009), Acemoglu–Robinson (2012), Cox et al. (2019)

Views on Pre-modern Europe vs. Imperial China

E.g., Finer (1997), Fukuyama (2011), Tackett (2014), Zhang (2017),
Acemoglu–Robinson (2019), Stasavage (2020), Greif et al. (forthcoming)

- ▶ Stronger rule of law and property rights in Europe
- ▶ Exam-based elite status, freer peasantry, lower land concentration in China

The more inclusive, open-access, equal society – China or Europe?

Do these views contradict each other?

Reconcile the views in a **power structure** approach

Read institutional differences along two dimensions

| | Imperial China | Pre-modern Europe |
|--|---------------------|-------------------|
| Absolute power of Ruler | Strong | Weak |
| Power/rights between Elites and People | Relatively balanced | Very asymmetric |

- ▶ China: society in the historical core of Imperial China

Europe: Romano-Germanic influenced/assimilated, once feudal society

- ▶ Mainly 9–14c., with persistence beyond

Provide a theory to explain the compatibility pattern

Main argument

Stronger absolute power of Ruler

= greater **conditionality** of power/rights of the ruled on Ruler's will

Given such conditionality, more power/rights of People

⇒ People more loyal to Ruler – punishment effect

⇒ Elites more loyal, too – **political alliance effect**

Such effects **stronger** when such conditionality **greater**

⇒ absolutist Ruler pushes for more power/rights of People

Historical notes

George Orwell (1947): idea of Ruler and People “being in a sort of alliance against the upper classes is almost as old as history”.

Han Feizi (3rd century BC), main philosopher of Legalist school expressed the idea in China.

Max Weber: “monarchs throughout the ages, from ancient Mesopotamia up to Imperial Germany, have been welfare-minded because they needed the support of the lower strata against the higher; ...the stability of monarchy rests in part on the ruler’s ability to balance” the “lower” and “the higher strata.”

This paper

Historical narratives on power structure

- ▶ Ideal type, *longue durée* approach

Do not deny but help interpret within-society variations and changes

A game-theoretical model for stability of autocratic rule

- ▶ Institutional compatibility between two dimensions of power structure, also long-run implications

Insights on specific institutions and stylized facts

- ▶ E.g., Chinese bureaucracy, European cities, stability of autocratic rule

Contribution

Institutions and development

North (1989), North–Weingast (1989), Acemoglu et al. (2001, 2005),
North et al. (2009), Besley–Persson (2011, 2014), Acemoglu–Robinson (2012, 2019),
Mokyr (2016), Cox et al. (2019)

- ▶ Three-estate framework vs. two-estate in literature
- ▶ Repressive in one dimension, inclusive in another
- ▶ Strategies of rulers to fend off challenges to their rule (Acemoglu and Robinson (2000, 2001), Acemoglu et al. (2004), Padro i Miquel (2007), ...
- ▶ Related paper by Persico (2021) : with imperfect protection of civil rights, rulers have an incentive to provide public goods equally to different groups.

Contribution

Political divergence between China and Europe

Jones (1981), Turchin (2009), Fukuyama (2011),
Gennaioli–Voth (2015), Ko et al. (2018), Acemoglu–Robinson (2019),
Ma–Rubin (2019), Scheidel (2019), Fernández-Villaverde et al. (2020),
Roland (2020), Stasavage (2020), Huang–Yang (2021), Greif et al. (forthcoming)

- ▶ Emphasis in the literature on geographical conditions of challenge to power (spatial distribution of threat) and of land productivity
- ▶ We emphasize institutional aspects of response to challenges via differences in power structure
- ▶ Lens of power structure helps sheds light on General Ruler–People alliance vs. state–society struggles, specific institutions
- ▶ Dual divergence of power structure and stability of autocratic rule starting from exogenous initial differences

Historical narratives on power structure

Ruler's absolute power

| | China | Europe |
|---------------------------------|--|--|
| Strength of rule of law | Ruler above the law E.g., Bloch (1940), Unger (1977), Mann (1986), Finer (1997), Tamanaha (2004), Fukuyama (2011), Acemoglu and Robinson (2019) | Ruler constrained by Church and law |
| Ultimate ownership of land | Reserved for Ruler; confiscation legitimate when Ruler deemed it necessary E.g., Chao and Chen (1982), Levi (1988), Finer (1997), Wang (2000), Hsing (2011) | Confiscation very constrained; Ruler expected to "live of his own" |
| Ruler's control over population | "Subjects not citizens"; harsh penalty for disloyalty | Limited control; much less harsh punishment for disloyalty E.g., Bloch (1939), Lander (1961), Mann (1986), Finer (1997) |

How much of the ruled's power/rights is conditional on the Ruler's will?

Power/rights asymmetry between People and Elites

呂思勉 Lü (1944) on China:

父兄有天下，而子弟為匹夫 *Once the father or elder brother takes the throne, the sons and younger brothers will become mere commoners*

Bloch (1940) on Europe:

A subject peasantry ...the supremacy of a class of specialized warriors ...the fundamental features of European feudalism
...The idea of an agreement capable of binding the rulers; ...oppressive ...to the poor ...

Power/rights asymmetry between People and Elites

| | China | Europe |
|--|--|---|
| Hereditary vs. non-hereditary elite status | Exam open to commoners; non-hereditary appointments | Hereditary nobility |
| | E.g., Kemp (1970), Weber (1978), Finer (1997), Wickham (2009), Yan (2009), Parish (2010), Tackett (2014), Hsing (2011) | |
| Inequality in land ownership | Mostly free, landowning peasantry; land ownership less concentrated | Serfdom common in Middle Ages; land ownership more concentrated |
| | E.g., Chao and Chen (1982), Beckett (1984), Finer (1997), Wickham (2009), Zhang (2017) | |
| Inheritance rule | Partible inheritance | Primogeniture increasingly more common |
| | E.g., Goody et al. (1976), Goldstone (1991), Bertocchi (2006), von Glahn (2016) | |

Elite–People relationship more balanced in China than in Europe

Model

Players

Ruler (R)

- ▶ Prefers a certain status quo of autocratic rule
- ▶ **Open to interpretation**, e.g., peaceful, unified, autocratic rule

Challenger (C)

- ▶ **Outsider, some elites, or some common people**; can challenge the status quo
- ▶ **May or may not seek to dethrone R or be armed**

Elites (E) and People (P)

Relevance

- ▶ Lords and bureaucrats; peasants and urban commoners; excluding C
- ▶ E and P can help R preserve the status quo
- ▶ Focus on strategic interaction across estates, not within each estate

Each player maximizes her own expected payoff

Two stages

Stage 1: Design of power structure

- ▶ R takes as given the level of his absolute power – endogenize later
- ▶ R chooses the degree of power/rights asymmetry between E and P

Stage 2: Stability of the status quo

- ▶ C, E, and P play a game, taking as given the chosen power structure
- ▶ Details coming ...

Stage 2

Nature (N)



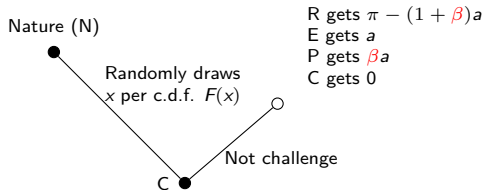
Randomly draws
 x per c.d.f. $F(x)$

C ●

$$x \geq 0, a > 0, \pi - 2a > r, 0 < p < 1, y > 0, w > \frac{p}{1-p} \cdot a, z > \frac{p}{1-p} \cdot y, \text{ perfect information, no m.s.}$$

Markov

Stage 2

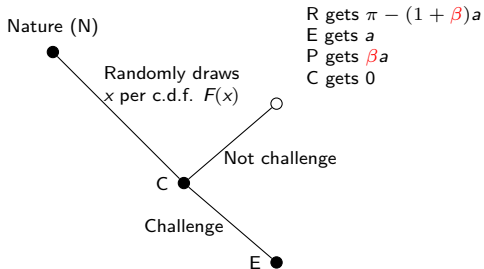


$$0 \leq \beta \leq 1, \beta^{\text{China}} \gg \beta^{\text{Europe}}$$

$$x \geq 0, a > 0, \pi - 2a > r, 0 < p < 1, y > 0, w > \frac{p}{1-p} \cdot a, z > \frac{p}{1-p} \cdot y, \text{ perfect information, no m.s.}$$

Markov

Stage 2

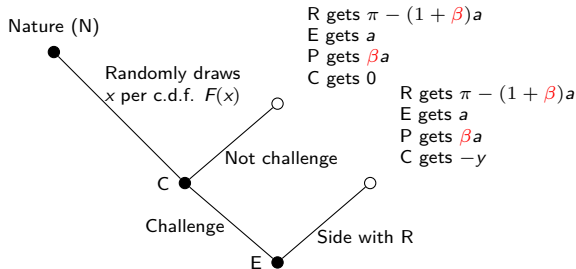


$$0 \leq \beta \leq 1, \beta^{\text{China}} \gg \beta^{\text{Europe}}$$

$x \geq 0, a > 0, \pi - 2a > r, 0 < p < 1, y > 0, w > \frac{p}{1-p} \cdot a, z > \frac{p}{1-p} \cdot y$, perfect information, no m.s.

Markov

Stage 2

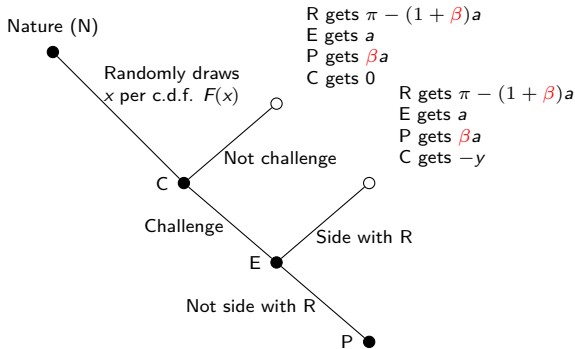


$$0 \leq \beta \leq 1, \beta^{\text{China}} \gg \beta^{\text{Europe}}$$

$$x \geq 0, a > 0, \pi - 2a > r, 0 < p < 1, y > 0, w > \frac{p}{1-p} \cdot a, z > \frac{p}{1-p} \cdot y, \text{ perfect information, no m.s.}$$

Markov

Stage 2

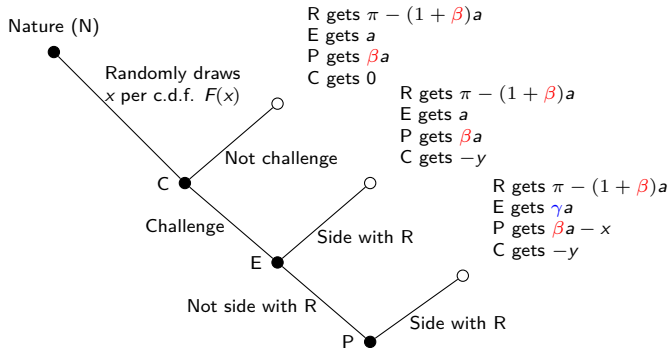


$$0 \leq \beta \leq 1, \beta^{\text{China}} \gg \beta^{\text{Europe}}$$

$$x \geq 0, a > 0, \pi - 2a > r, 0 < p < 1, y > 0, w > \frac{p}{1-p} \cdot a, z > \frac{p}{1-p} \cdot y, \text{ perfect information, no m.s.}$$

Markov

Stage 2



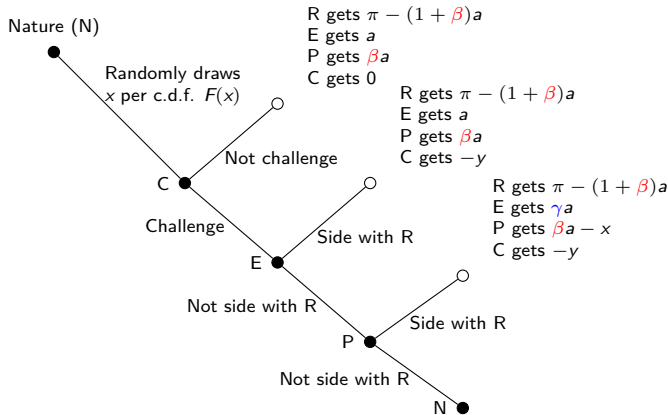
$$0 \leq \beta \leq 1, \beta^{\text{China}} \gg \beta^{\text{Europe}}$$

$$0 \leq \gamma \leq 1, \gamma^{\text{China}} \ll \gamma^{\text{Europe}}$$

$$x \geq 0, a > 0, \pi - 2a > r, 0 < p < 1, y > 0, w > \frac{p}{1-p} \cdot a, z > \frac{p}{1-p} \cdot y, \text{ perfect information, no m.s.}$$

Markov

Stage 2



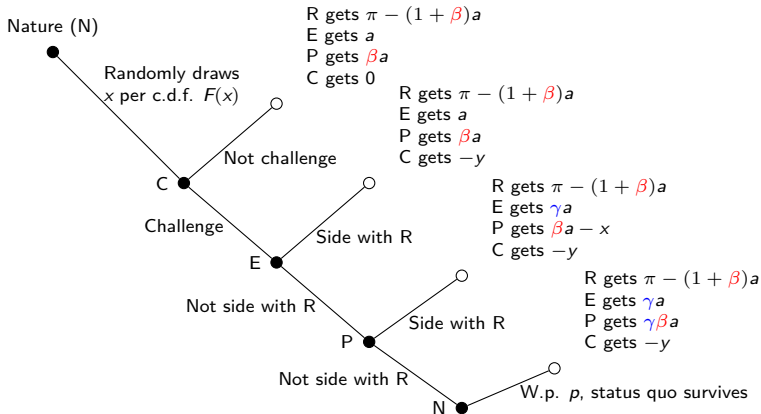
$$0 \leq \beta \leq 1, \beta^{\text{China}} \gg \beta^{\text{Europe}}$$

$$0 \leq \gamma \leq 1, \gamma^{\text{China}} \ll \gamma^{\text{Europe}}$$

$$x \geq 0, a > 0, \pi - 2a > r, 0 < p < 1, y > 0, w > \frac{p}{1-p} \cdot a, z > \frac{p}{1-p} \cdot y, \text{ perfect information, no m.s.}$$

Markov

Stage 2



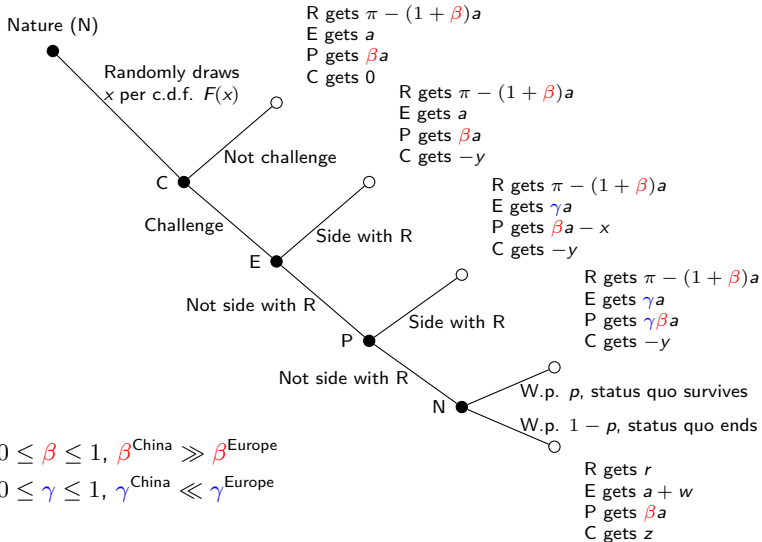
$$0 \leq \beta \leq 1, \beta^{\text{China}} \gg \beta^{\text{Europe}}$$

$$0 \leq \gamma \leq 1, \gamma^{\text{China}} \ll \gamma^{\text{Europe}}$$

$$x \geq 0, a > 0, \pi - 2a > r, 0 < p < 1, y > 0, w > \frac{p}{1-p} \cdot a, z > \frac{p}{1-p} \cdot y, \text{ perfect information, no m.s.}$$

Markov

Stage 2



$x \geq 0, a > 0, \pi - 2a > r, 0 < p < 1, y > 0, w > \frac{p}{1-p} \cdot a, z > \frac{p}{1-p} \cdot y$, perfect information, no m.s.

Markov

Intuition and result, Stage 2

P compares

$$\underbrace{x}_{\text{Cost if sides with R}} \quad \text{vs.} \quad \underbrace{(1 - \gamma) \cdot \beta a}_{\text{Punishment if otherwise but status quo survives}} \cdot \underbrace{p}_{\text{Its probability}} \quad \equiv \quad \underbrace{\hat{x}}_{\text{Cost threshold}}$$

P sides with R if and only if $x \leq \hat{x}$

E/C “follow” P, i.e., sides with/does not challenge R if and only if $x \leq \hat{x}$

More power/rights of People, i.e., $\beta \uparrow$

\Rightarrow greater punishment upon P, i.e., $(1 - \gamma)\beta a \uparrow \Rightarrow$ P more loyal, i.e., $\hat{x} \uparrow$

\Rightarrow E/C more loyal/reluctant to challenge – **political alliance effect**

Such effects stronger when absolute power greater, i.e., $\gamma \downarrow$

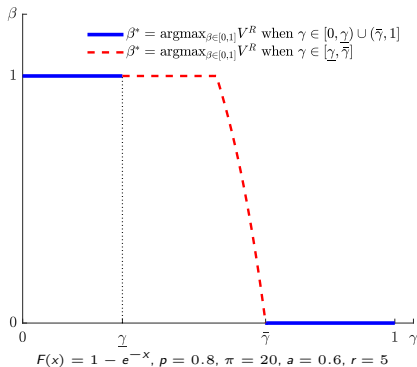
Intuition and result, Stage 1

R chooses β

$$\underbrace{1 - (1 - p) \cdot \mathbf{P}[x > (1 - \gamma)\beta a p]}_{\text{Stability higher if } \beta \text{ higher, effect stronger if } \gamma \text{ lower}}$$

vs.

$$\underbrace{\pi - a - \beta a}_{\text{Status quo payoff lower if } \beta \text{ higher}}$$



Endogenize Ruler's absolute power

Extension 1: People's preference over γ

- ▶ People may not always prefer weaker absolute power of Ruler

i.e., People may be better off when their power/rights can be taken away

Extension 2: Current stability influences future power structure

- ▶ China and Europe as different steady states

Divergence

Further discussion and stylized facts

Understanding specific institutions

E.g., bureaucracy with civil service exam in China

- ▶ Started with strong absolute power of Ruler – low γ
- ▶ Civil service exam generalized access to elite status, raising β
- ▶ Elites (bureaucrats) relied on Ruler for legitimacy, further lowering γ
- ▶ Ruler *and* People may have benefited from strong autocratic rule

Understanding specific institutions

E.g., bureaucracy with civil service exam in China

- ▶ Started with strong absolute power of Ruler – low γ
- ▶ Civil service exam generalized access to elite status, raising β
- ▶ Elites (bureaucrats) relied on Ruler for legitimacy, further lowering γ
- ▶ Ruler *and* People may have benefited from strong autocratic rule

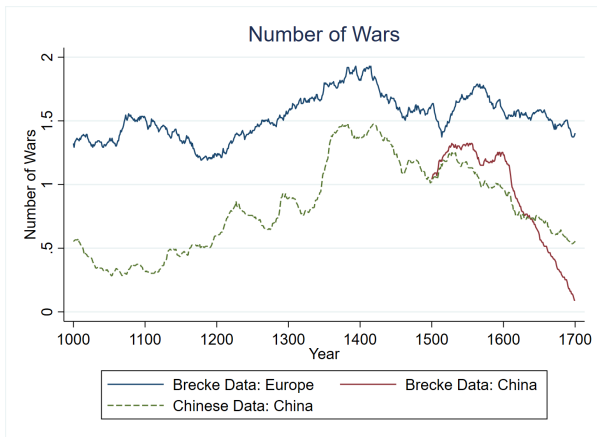
E.g., cities in Europe

- ▶ Ruler tried to form alliance with People by chartering city rights, raising β
- ▶ Not always helpful, due to Ruler's weak absolute power – high γ London
- ▶ Within Europe, urbanization picked up only in states without strong assembly
- ▶ Overall, relatively small population that could enjoy city privileges

Auxiliary predictions

| Interpretation | Prediction | China (high β , low γ) | Europe (low β , high γ) |
|-------------------------------|----------------------------|---|--|
| Challenge as armed | Frequency of wars | Low | High |
| Challenge as to dethrone R | Ruler's risk of deposition | Low | High |
| Status quo as unification | Unified autocratic rule | Resilient | Vulnerable |

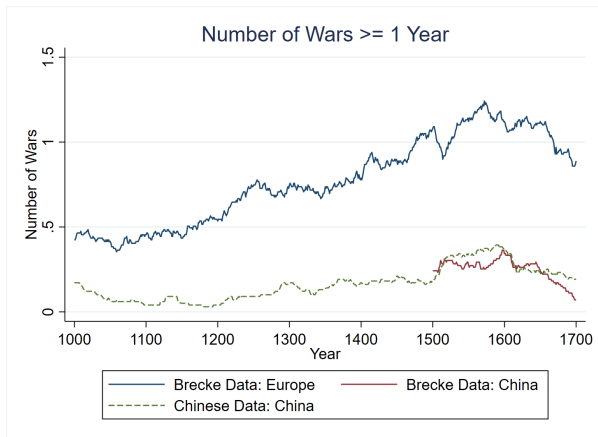
Number of wars started in a given year



Olympic average within each retrospective 100-year window; Brecke (1999), Chinese Military History (2003)

Status quo of afore-defined Chinese/European society challenged

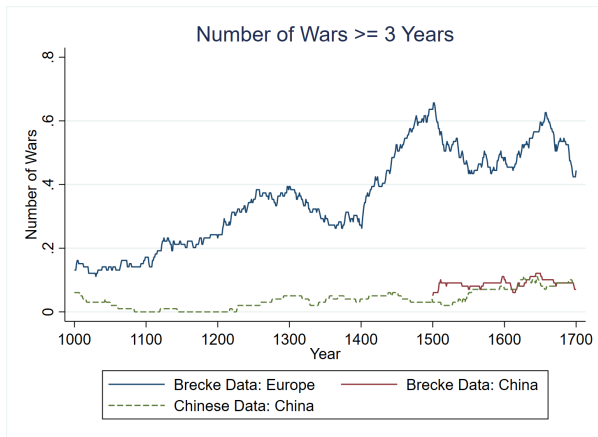
Number of wars started in a given year



Olympic average within each retrospective 100-year window; Brecke (1999), Chinese Military History (2003)

Status quo of afore-defined Chinese/European society challenged

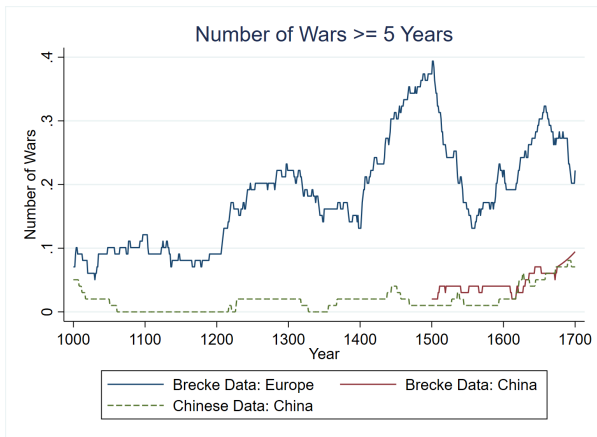
Number of wars started in a given year



Olympic average within each retrospective 100-year window; Brecke (1999), Chinese Military History (2003)

Status quo of afore-defined Chinese/European society challenged

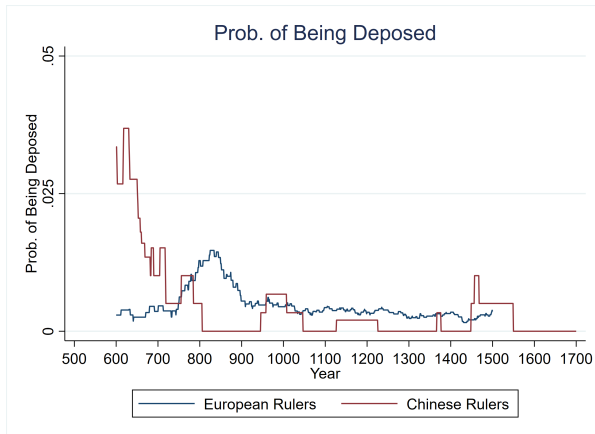
Number of wars started in a given year



Olympic average within each retrospective 100-year window; Brecke (1999), Chinese Military History (2003)

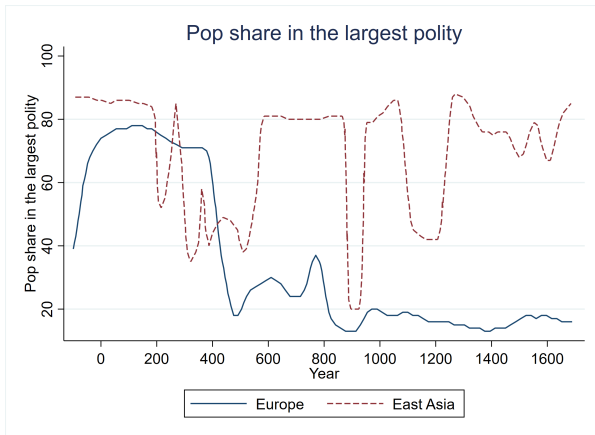
Status quo of afore-defined Chinese/European society challenged

Risk of deposition for a Ruler in a given year



Olympic average within each retrospective 100-year window; Morby (1989); Europe excluding Eastern Europe and Russia

Percentage of population claimed by the largest polity



Replicated from Scheidel (2019); Europe the continent, East Asia by UN

Concluding remarks

| | Imperial China | Pre-modern Europe |
|--|---------------------|-------------------|
| Absolute power of Ruler | Strong | Weak |
| Power/rights between Elites and People | Relatively balanced | Very asymmetric |
| Stability of autocratic rule | High | Low |

1. Absolute power of Ruler = **conditionality** of power/rights of the ruled
2. Ruler–People alliance stabilizes autocratic rule through **strategic interaction**
3. Ruler pushes for more power/rights of People when absolute power strong

Alliance

Concluding remarks

Within Europe, e.g., France vs. Germany, England over time

Within China, e.g., dynastic cycles, communist rule

Beyond China vs. Europe, e.g., Mamlukism in the Muslim world

Beyond political stability, e.g., Confucianism–Legalism confluence in culture

Beyond autocratic rule, e.g., democratization vs. meritocratization

Strategy

Many thanks!

Ming Zhang; EDI

Avner Greif, Joel Mokyr

Chris Bidner, Gary Cox, Wei Cui, Georgy Egorov, Patrick Francois, Guido Friebel, Scott Gehlbach, Murat Iyigun, Saumitra Jha, Mark Koyama, Ling Li, Weijia Li, Zhao Liu, Zhaotian Luo, Christopher Meissner, Emerson Niou, Pietro Ortoleva, Albert Park, Jean-Laurent Rosenthal, Jared Rubin, Larry Samuelson, Tuan-Hwee Sng, Michael Zheng Song, Konstantin Sonin, David Stasavage, John Sutton, Guido Tabellini, Chenggang Xu, Li-An Zhou, Xueguang Zhou

BOFIT, CPSSS, Fudan, Harvard, Monash, Tsinghua, UBC, UC Davis, UCSD, USC

APSA, ASSA, CESI, NBER OE, SIOE

Contribution

Promoting Elite–People symmetry as a strategy to fend off challenges

E.g., Acemoglu–Robinson (2000, 2001), Acemoglu et al. (2004), Padro i Miquel (2007)

- ▶ E.g., meritocratization vs. democratization

Or vs. ex-post ad-hoc division, external fear, etc.

- ▶ Ex-ante committed payoff schedule through institutional design

- ▶ Does not change but relies on where absolute power lies

Persico (2021)

Last

Political alliance between Ruler and People

George Orwell, *The English People* (1947):

[A]n idea almost as old as history, ...the King and the common people being in a sort of alliance against the upper classes

Leslie Morton, *A People's History of England* (1938):

Even the strongest combination of barons had failed to defeat the crown when ...it had the support of other classes and sections of the population. ...[T]he fyrd ...had been the trump card of the Crown in its struggles with the nobility

韓非子·備內：

徭役多則民苦，民苦則權勢起，權勢起則復除重，復除重則貴人富。苦民以富貴人，起勢以藉人臣，非天下長利也。故曰：徭役少則民安，民安則下無重權，下無重權則權勢減，權勢減則德在上矣。

1215, a year of significance

April: Barons marched from Stamford to London

May: King John chartered several rights of London

- ▶ Election of mayor by Londoners, abolishing tallage, etc.

June: Londoners joined the barons, Magna Carta sealed

Examples

Relevance of People to political stability

Position of People indeed critical to stability

- ▶ E.g., end of the Qin, Xin, Sui, Tang, Yuan, and Ming dynasties

Hundred Years' War, German Peasants' War, etc.

29 entries of significant historical examples, c. 200 BC–c. 1700

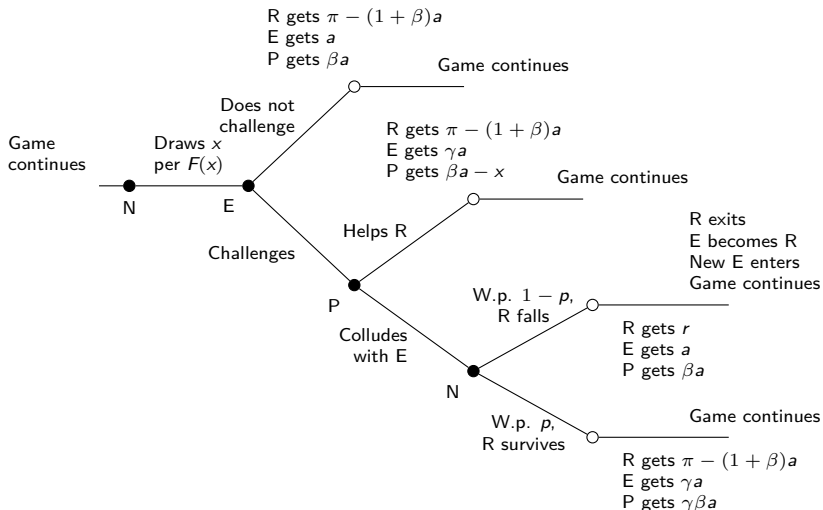
Ruler's reliance on Elites in Europe

- ▶ An equilibrium outcome of the asymmetric Elite–People relationship

People influential on off-equilibrium paths

Game

Endogenize w , y , and z by collapsing C and E



$$x \geq 0, \quad a > 0, \quad \pi - 2a \geq r, \quad 0 \leq \beta \leq 1, \quad 0 \leq \gamma \leq 1, \quad 0 < p < 1$$

Dual divergence of power structure and political stability

Proposition

- ▶ R prefers γ to be as low as possible
- ▶ As $\pi - r \rightarrow \infty$, given any $\gamma < 1$, R prefers β to be as high as possible

Motion of power structure and stability of autocratic rule:

$$\beta_t = \beta(S_{t-1}), \quad \gamma_t = \gamma(S_{t-1}), \quad S_t = S(\beta_t, \gamma_t), \quad \text{where}$$

$$\beta'(\cdot) > 0, \quad \gamma'(\cdot) < 0, \quad S(\cdot, \cdot) \text{ as in Stage 2}$$

A steady state (β^*, γ^*, S^*) must satisfy

$$\beta^* = \beta(S^*), \quad \gamma^* = \gamma(S^*), \quad S^* = S(\beta^*, \gamma^*)$$

Multiple stable steady states may exist

Corollary. China vs. Europe \sim divergence from slightly different (β_0, γ_0, S_0)

Further