Lectures 5-6

Non-market strategy under weak institutions

1

Outline

1. Does weakness of institutions matter for business and economic performance?
2. Which institutions matter most?
3. Why institutions can be weak?
4. Performance of autocracies
5. Lessons for the formulation of a non-market strategy

2

Weak Institutions

- Four I's framework:
  - Issue
  - Interests
  - **Institutions**
  - Information
- Institutions: arenas in which conflicting interests interact
- In many (developing) countries in which you might have to work (Russia, China, South Korea, etc.), many institutions' (legislature, courts, bureaucratic agencies) *modus operandi* can be overruled by some interest (via corruption or political power)
- In other words, institutions are **weak**

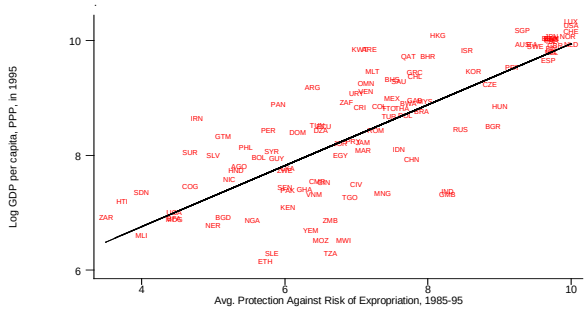
3

Variation in Institutional Strength

- There are large differences in the strength and quality of institutions – parliaments, courts, government agencies, etc. – across countries
- Consequence - large variation across the world in:
  - Enforcement and protection of property rights
  - Legal systems
  - Extent of corruption
  - *De facto* constraints on politicians and political elites
- Does it matter for the effectiveness of your business, and of the economy's performance in general?

4

Institutional strength and economic performance



Strength of institutions is endogenous

- Institutions could vary because underlying factors differ across countries.
  - Geography, ecology, climate
  - Culture
- Montesquieu's story:
  - Geography determines "human attitudes"
  - Human attitudes determine both economic performance and political system.
  - Institutions potentially influenced by the determinants of income.
- Identification problem:
  - Correlation does not imply causality

6

Geography hypothesis: Montesquieu

- Montesquieu:
  - “The heat of the climate can be so excessive that the body there will be absolutely without strength. So, prostration will pass even to the spirit; no curiosity, no noble enterprise, no generous sentiment; inclinations will all be passive there … ”
  - "People are ... more vigorous in cold climates"

7

Geography hypothesis: Montesqieu

- Moreover, Montesquieu argues that lazy people tend to be governed by despots, while vigorous people could be governed in democracies; thus hot climates are conducive to authoritarianism and despotism

8

Geography hypothesis: modern versions

- Jared Diamond:
  - Importance of geographic and ecological differences in agricultural technology and availability of crops and animals.
- Jeffrey Sachs:
  - "Economies in tropical ecozones are nearly everywhere poor, while those in temperate ecozones are generally rich … " because “ …certain parts of the world are **geographically favored**. Geographical advantages might include access to key natural resources, access to the coastline and sea…, advantageous conditions for agriculture, advantageous conditions for human health."

9

Geography hypothesis: modern versions

- Jeffrey Sachs:
  - "Tropical agriculture faces several problems that lead to reduced productivity of perennial crops in general and of staple food crops in particular" …
  - "The burden of infectious disease is similarly higher in the tropics than in the temperate zones"
- Geography might also affects the quality on institutions:
  - Colder climate favors production technology with increasing returns to scale – large land ownership
  - Large landowners need – for further expansion – better protection of property rights
  - One way of guaranteeing this is to strengthen the institutions

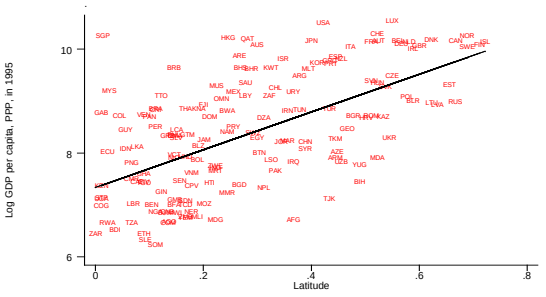
10

Geography hypothesis: modern versions

- If these hypotheses are correct:
  - On one hand, geography affects economic performance
  - On the other hand, geography – historically – affects the quality of institutions
  - Thus, there is no direct causality that runs from the quality of institutions to business and economic performance
  - Then, the strength or the quality of institutions does not matter for business operation?

11

Montesquieu's story?



Need for exogenous variation

- Exploit "natural experiments" of history, where some societies *that are otherwise similar* were affected by historical processes leading to divergence in institutional quality
- Needed: a source of variation that affects the quality of institutions, *but has no other effect*, independent or working through omitted variables, on income

13

European colonization as a "natural experiment"

- Acemoglu, Johnson, Robinson (*AER* 2001) paper finds one such source of variation
- After the discovery of the New World and the rounding of the Cape of Good Hope, Europeans dominated many previously diverse societies, and fundamentally affected their social organizations and the quality of their institutions.

14

European colonization as a "natural experiment"

- Approximating a "natural experiment" because
  - Many factors, including geographic, ecological and climatic ones, constant, while big changes in institutions.
  - Changes in institutions **not** a direct function of these factors; i.e. the quality of the institutions **was not** chosen by the society itself as a function of geography
  - Analogy to a real experiment where similar subjects have different "treatments"

15

European colonization as a "natural experiment"

- Consequences?
- Look at changes in prosperity from before colonization (circa 1500) to today in the *former colonies sample*

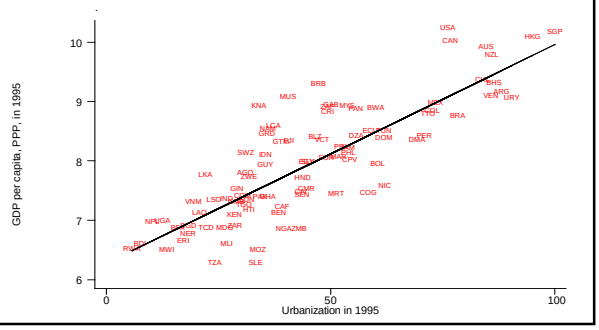
16

Measuring prosperity before national accounts

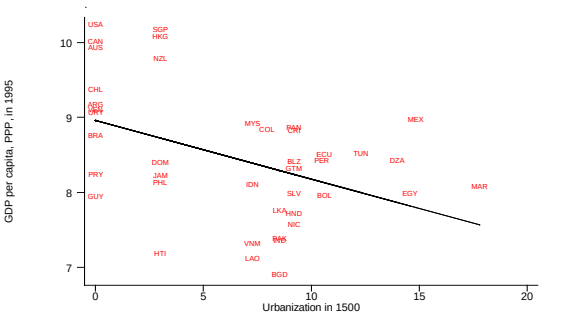
- To answer these questions, we need a measure of prosperity before the modern era.
- Urbanization is a good proxy for GDP per capita (Bairoch, Kuznets, de Vries).
- Only societies with agricultural surplus and good transportation network can be urbanized.
- Urbanization is highly correlated with income per capita today and in the past.
- And we can construct data on urbanization in the past (Bairoch, de Vries, Eggimann)

17

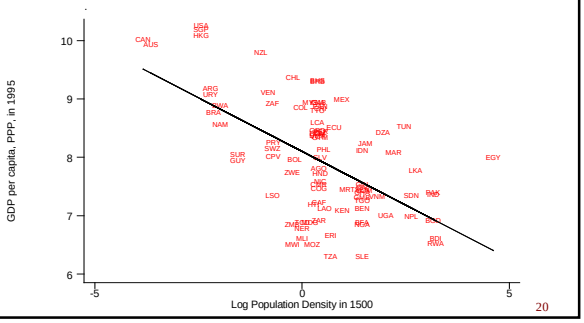
Urbanization and income today



Reversal since 1500



Reversal since 1500



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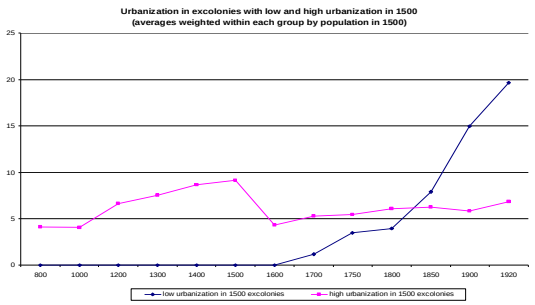
When did the reversal happen?



21

What's happening?

- Former colonies with high urbanization and population density in 1500 have relatively poor economic performance today, while those with low initial urbanization and population density have generally prospered.
  - Clearly, these economic gains in the growing societies are not equally shared. Native Indians and aborigines in the New World have almost completely disappeared

22

Understanding the patterns from 1500 to 2000

- Geography hypothesis?
  - It cannot be driven by geographical differences; no **change** in geography.
- Reversal related to changes in institutions/social organizations.
- Relatively better institutions "emerged" in places that were previously poor and sparsely settled.
  - E.g., compare Australia vs. the Caribbean.

23

Understanding the patterns from 1500 to 2000

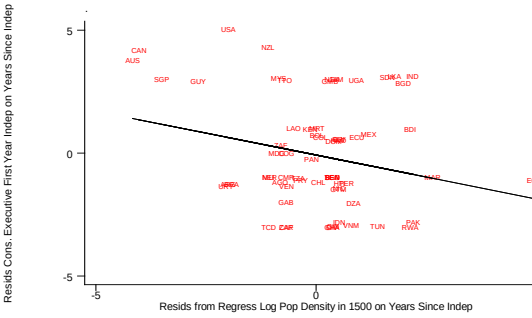
- Thus an *institutional reversal*
  - Richer societies in 1500 ended up with worse institutions.
  - Europeans introduced relatively good institutions in sparsely-settled and poor places, and introduced or maintained previously-existing weak institutions in densely-settled and rich places.
- Strength/weakness of institutions has persisted and affected the evolution of income, especially during the era of industrialization

24

The institutional reversal

25

The institutional reversal



Determinants of institutions in the colonial experience

- Factor 1: more profitable to set up good institutions when Europeans themselves will benefit.
  - Better institutions in places where Europeans settle and become a significant fraction of population (typically places with low initial population density).
- Factor 2: more profitable to set up good institutions when little to expropriate.
  - Better institutions in places with low population density and/or fewer resources to extract (i.e., low prosperity, low urbanization)

27

Understanding the timing of the reversal

- Why did the reversal take place in the 19th century?
- Weak institutions imposed by Europeans were not very costly (in terms of income lost) when they dominated the major productive opportunities.
  - E.g., the plantation complex generated investment in sugar production; Barbados, Cuba, Haiti, Jamaica among the richest places in the world at some point between 16th and 19th centuries

28

Understanding the timing of the reversal

- The major cost of the weakness of institutions arises when new opportunities, in this instance in industry and commerce, require investment by new groups and broad-based participation.
  - 19th century was a period of industrialization, and societies with relatively stronger institutions were the ones allowing free-entry by new entrepreneurs

29

Which institutions matter most?

- Douglass North (1989):
  - « contract theory » of the state: the state provides legal framework that enables private contracts that facilitate economic transactions
  - « predatory theory » of the state: the state has the power to transfer resources from one group of citizens to another
  - Strong institutions simultaneously support private contracts (fair, quick, and efficient courts) and guarantee protection from expropriation by the government or elites (rigid *de facto* constraints on the executive power)
- But are these equally important? The weakness of *which* institutions is worse for conducting business?

30

Unbundling institutions

- Distinguish between:
  1. "Property rights" institutions: protect citizens from various forms of expropriation by elites: e.g., separation of power, constraints on the executive.
  2. "Contracting" institutions: determine the terms and ease of contracting between citizens: e.g., quality of courts, judicial efficiency, bankruptcy law

31

Empirical challenges

1. High potential overlap between contracting and property rights institutions: countries with strong PRI have often also good CI
2. Endogeneity problem again (even worse!): finding sources of *exogenous* and *unrelated* variation for the two types of institutions

32

Unbundling institutions

- Acemoglu and Johnson (*JPE* 2005) paper
- Finding: Having stronger property rights institutions is more important than having stronger contracting institutions - for economic growth, investment and financial development.
- Having stronger contracting institutions is important only for the *form* of financial development (debt versus equity)

33

Solutions to challenges

1. The overlap is not perfect: there are some countries with good PRI but average CI and vice versa
2. Endogeneity problem:
   - History of European colonization
   - Use the fact that the quality of PRI is driven by settlers' incentives …
   - … while the quality of CIs is inherited through colonial *origin*
   - Need data on settler mortality and legal origin

34

Variation in data

- Quality of contracting institutions:
  - Enforcing a simple commercial debt in Dominican Republic costs 440% of income per capita and takes 495 days on average
  - The same measures for New Zealand are 12% of income per capita and 50 days
- Strength of property rights institutions:
  - Government expropriation of business income/assets is considered virtually impossible in most OECD countries
  - The same is considered very likely in Sub-Saharan Africa and Central America

35

Empirical strategy

- Test:
  - Are business/economic performance measures by the quality of PRI and CI?
- Here, performance measures are
  - Level of GDP per capita
  - Ratio of investment to GDP
  - Private credit as % of GDP
  - Stock market capitalization as % of GDP

36

Empirical strategy

- Because of endogeneity, though, we first have to estimate how the quality of PRI and CI depends on « instrumental variables »
- Here, the « instruments » for the quality of PRI is mortality of European settlers around 1500-1700 and indigenous population density in 1500; the « instrument » for the quality of CI is English legal origin

37

Empirical findings

- Findings in Stage 1:
  - The mortality of European settlers around 1500-1700 and indigenous population density in 1500 strongly affects the quality of PRI (measured by current *de facto* constraint on the executive) and these variables do *not* affect the quality of CI;
  - English legal origin affects the quality of CI (measured by low legal formalism) and it does not affect the quality of PRI

38

Empirical findings

- Findings in Stage 2:
  - The variation in the quality of PRI caused by the first-stage instruments is strongly correlated with GDP per capita, investment, and bank credit (but not with stock market capitalisation);
  - The variation in the quality of CI caused by the first—stage instrument is strongly correlated with stock market capitalisation but is *not* correlated with GDP per capita, investment, and bank credit

39

Conclusion

- Economies can function « normally » in the face of weak contracting institutions …
- … but not under weak property rights institutions (i.e., in the presence of a significant risk of expropriation from the government or other powerful groups):
  - While weak CIs are very costly, private parties can change the terms of contracts to include these imperfections
  - Moreover, they can also rely on reputational mechanisms to make sure that contracts are not broken
  - E.g. Vietnamese informal trade relationships

40

Why institutions can be weak?

- Until now, we have explored the effect of better (stronger) institutions on business and economic performance
- We have established that there is a causal link and clarified which institutions matter most
- Next question: If the strength of (PR) institutions is so important, what prevents some countries from strengthening these institutions?

41

Political Coase Theorem

- We start by exploring a very generic problem: the lack of commitment by (potential) power-holders
- If more surplus can be generated by setting better PR institutions, can not even a dictator be better off from having more income to tax (efficient predation)?

42

Coase Theorem

- When property rights are well-defined and there are no « transaction costs », economic agents will « contract » to achieve an efficient (i.e. output- or surplus-maximizing) outcome, **irrespective** of who has the property rights on particular assets

43

Coase Theorem

- Economic example:
  - A firm, an entrepreneur E, and investors V
  - E can put high effort, which increases profits
  - Let the firm be owned by E
    - He puts high effort (because the firm is his), and pays dividends to V
  - Let the firm be owned by V
    - V still can contract with E so that E puts high effort; the contract specifies that the surplus generated by high effort of E is shared between E and V
  - The distribution of ownership does not matter for efficient outcome!

44

Coase Theorem

- What if there are transaction costs? E.g. the contract between E and V cannot be written or enforced (say the courts are weak)
- Then, the distribution of ownership is crucial
  - If E owns the firm, the efficient outcome is obtained
  - If V own the firm, we have an inefficient outcome

45

Political Coase Theorem

- Example:
  - A country, a dictator D, producer groups P
  - P can work hard and produce high GDP …
  - … which can be taxed by D
  - Let the country be governed by P (i.e., they have control over the tax rates)
    - They put high effort and the country is wealthy

46

Political Coase Theorem

- Let the country be governed by D
- Can he still induce high effort?
- Yes: he contracts with P so that P work hard and the generated surplus is split between D and P (« efficient predation »)
- Thus, the distribution of political power should not matter for economic outcomes
- If all the parties are rational, we should get the best possible economic outcome under the available technology

47

Is this view too optimistic?

- As we have seen earlier, weak PR institutions cause poor business/economic performance
- Weak PR institutions exist because of the severe misalignment in the economic interests of political decision-makers and the rest of the society

48

Theory of Social Conflict

- Thus, as with the Coase Theorem in economics, we should analyze the reasons of contractual incompleteness
- If the contracts between D and P cannot be written or enforced, then the distribution of political power will matter for the quality of institutions (and for business and economic performance)

49

Theory of Social Conflict

- What is the cause of this contractual incompleteness?
- Since the contracts are enforced by the state, and the state is run by the political decision maker (D), he has **the power to override** the contract that he signs with P
- Thus, P realize that D cannot credibly commit to not to use this power to exploit them
- P then abstains from putting high effort

50

Theory of Social Conflict

- This is **the commitment problem** associated with political power
- Given that the policy maker has the discretion to use his power, this inability to commit causes the economic inefficiency
- E.g., people in a dictatorial society abstain from investing (e.g. improving their land plots) because they know that the returns that they realize from this investment can be fully captured by the dictator or the powerful elite

51

Theory of Social Conflict

- Note that D is also worse off
- If only he could credibly commit to not to abuse his power, P would exert high effort and he would share in the surplus!
- Under this contractual incompleteness, the distribution of political power matters
- In particular, if P have the political power, they know that their produce cannot be captured and thus exert high effort

52

Commitment Problem

- The commitment problem is twofold:
  - The ruler cannot commit to not to use his power in ways that benefit him in the future – as long as he does not relinquish it
  - But why citizens do not pay the ruler to relinquish (transfer) his political power?

53

Commitment Problem

- But then the commitment problem again kicks in – in the opposite direction:
- Since the return on high effort (human capital investment) does not realize before some future date …
- … if the ruler relinquishes his power, the citizens cannot credibly commit to making him side payments in the future …
- … exactly because the ruler does no longer possess the political power to enforce such promises!

54

Is commitment problem hopeless?

- There is no outside party to enforce the contracts between D and P
- D, as a political power holder, can renege on his promises
- Therefore, only the « self-enforcing » (or « incentive-compatible ») arrangements can be made
- I.e., under this arrangement, it should not pay to D to renege on his promise **after** the effort level by P is chosen

55

Incentive-compatible promises

- Note that the relationship between P and D is not one-shot, but a continuous one
- P and D may enter into an implicit agreement where D « promises » not to grab everything because of future rents from continued market production by P
- These promises have to be self-enforcing

56

Incentive-compatible promises

- Suppose P follow the « trigger » punishment strategy:
  - In the beginning of period 1, P and D enter into an agreement
  - P exert effort according to this agreement (suppose, it is high effort) in period 1
  - If D does not renege on his promise at the end of period 1, then in period 2, P again exert high effort, and so on
  - If, instead, D reneges at the end of period 1, from period 2 onwards (forever), P exert *only* low effort

57

Incentive-compatible promises

- D realizes that is he reneges at some moment, from that moment onwards he will only have low payoffs
- Thus, under some conditions, even in the absence of commitment power, the efficient outcome can be supported
- When these conditions hold, the Political Coase Theorem holds true!
- What are those conditions?

58

Incentive-compatible promises

- D is *expected* to remain in power forever (or, at least, for an uncertain and a long enough period of time) *and* he is not short-sighted
  - The shorter is the expected « lifespan » of D, the lower is his continuation payoff
  - Thus, the less likely it is that an efficient outcome is self enforcing
- The replacement of D is costly
  - The costlier it is to replace D, the lower is his risk of termination of his rule
  - Thus, the higher is his expected continuation payoff

59

Performance of autocracies

- So far: we have explored the factors that impede installing stronger institutions in an autocracy
- However, not all autocracies function poorly
- How can a dictatorship have good economic performance? In the absence of elections (and supposing – realistically – that the dictator is not benevolent), what are the players that can induce good business and economic performance?

60

Performance of Autocracies

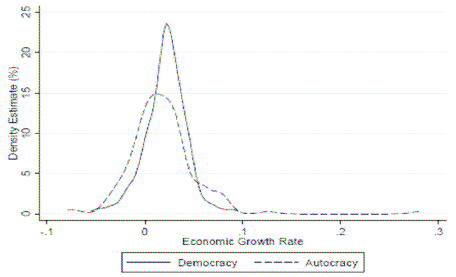


Figure 1: Economic Growth Distributions among Democracies and Autocracies

61

Performance of Autocracies

- In terms of economic growth:
  - *On average*, democracies perform better than autocracies
  - However, the are some cases where autocracies perform *much* better or *much* worse than democracies

62

Performance of Autocracies

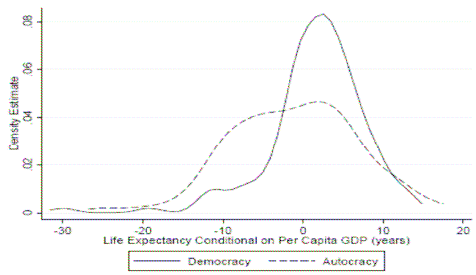


Figure 2: Health Performance Distributions among Democracies and Autocracies

63

Performance of Autocracies

- In terms of health performance:
  - Again, on average democracies perform better than autocracies, but
  - The lower tail of the distribution for democracies gets worse than that for autocracies (mainly because of South Africa and Botswana – HIV epidemics)

64

Performance of Autocracies

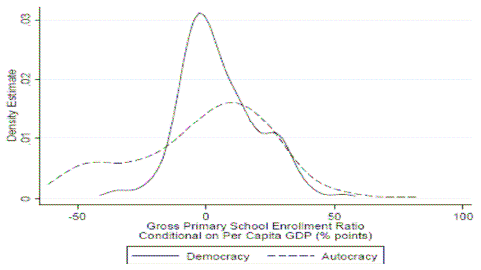


Figure 3: Education Performance Distributions among Democracies and Autocracies

65

Performance of Autocracies

- In terms of education:
  - On average, autocracies perform somewhat better than democracies, but …
  - There is a big number of autocracies with a very poor performance
  - However, there are some autocracies which are outstanding

66

Performance of Autocracies

- Overall, the development performance of autocracies is much more heterogeneous than that of democracies
- In other words, when things go wrong, they can go really bad in autocracies
- But, there are numerous cases when autocracies function quite well. Why?

67

Making Autocracy Work

- Besley and Kudamatsu (2007)
- A simple model of accountability in the absence of regularized elections
- The role of selectorate – a group of individuals on whom the leader depends to hold onto power
- Good policies are implemented in an autocracy when the selectorate removes poorly performing leaders from office
- Selectorate is able to discipline the politician (i.e. inducing good general-interest policy) if their grip on power is sufficiently strong. Thus, successful autocracies are those with strong selectorates who can commit to removing bad leaders

68

Empirical analysis

- *Empirical approach*: rely on an *objective* criterion for identifying successful autocracies, to avoid arbitrarily selecting only cases that are consistent with theory
- Steps of analysis:
  1. Identifying successful autocracies
  2. Testing the model using this sampling

69

Empirical analysis

- *Key finding*: leadership turnover is much higher in better-performing autocracies
- However, this occurs without a change in the ruling party or clan
- This indicates the importance of the selectorate's hold on power

70

Lessons for the formulation of a non-market strategy

1. Strength of institutions that put *de facto* constraints on the executive power is fundamental for being able to conduct business
2. The weakness of contractual institutions can be overcome, but you need to heavily rely on reputational mechanisms
3. In autocracies: the right inter-temporal incentives of the ruler and the control by the selectorate can give rise to better economic performance even under weak institutions

71