

POLITICAL ECONOMY OF  
DEVELOPMENT AND  
UNDERDEVELOPMENT

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## The State of the World Economy

- Vast differences in prosperity across countries today.
  - Income per capita in sub-Saharan Africa on average  $1/20^{th}$  of U.S. income per capita
  - In Mali, Democratic Republic of Congo (Zaire), and Ethiopia,  $1/35^{th}$  of U.S. income per capita
- What explains the different economic outcomes?
- How could we understand development and underdevelopment?

## Plan of the lectures

- This lecture; two parts.
  1. Sources of prosperity: Institutions matter
    - Institutions vs geography vs culture
  2. How do institutions emerge?
    - Four theories of institutions
- Future lectures: Understanding and modeling institutions.
  - **Lecture 2**: How institutions affect the allocation of resources and are chosen for distributional consequences.
  - **Lecture 3**: How institutions may be more efficient (or less distortionary) in the short run than in the long run
    - \* 'Reversal of Fortune' among countries.
  - **Lecture 4**: How equilibrium institutions change or may be reformed.
    - \* Democratization vs. Consolidation vs. Repression

## Part 1: Sources of Prosperity

- Outline
  - Proximate causes of prosperity
  - Fundamental causes of prosperity: Institutions vs culture vs geography
  - “Natural experiments” of history:
    - \* European colonization
    - \* South vs. North Korea
    - \* Chinese experience

## Proximate Causes of Prosperity

- **Physical capital differences**; poor countries don't save enough.
- **Human capital differences**; poor countries don't invest enough in education and skills.
- **"Technology" differences**; poor countries don't invest in R & D and technology adoption, and don't organize their production efficiently.
- **Markets**; markets don't function in poor countries.

**Question:** Why don't poor countries save enough, invest enough, develop and use technologies and have functioning markets?

## Potential *Fundamental* Causes of Prosperity

- **Institutions**; humanly-devised rules shaping incentives.
- **Geography**; exogenous differences of environment.
- **Culture**; differences in beliefs, attitudes and preferences.

## What Are Institutions?

- Douglass North (1990, p.3):  
“Institutions are the rules of the game in a society or, more formally, the humanly devised constraints that [shape human interaction](#).”
- Economic institutions (e.g., property rights)
  - shape economic incentives, contracting possibilities, distribution
- Political institutions (e.g., form of government, constraints on politicians)
  - shape political incentives and distribution of political power.

## Institutions? Key Distinctions (1)

- Formal vs. Informal Institutions
  - How rules are codified vs. how rules are applied
    - \* e.g., Constitutions of U.S. and many Latin American countries are similar, but the practice of politics is different.
  - Why? Because the distribution of **political power** is different

## Institutions? Key Distinctions (2)

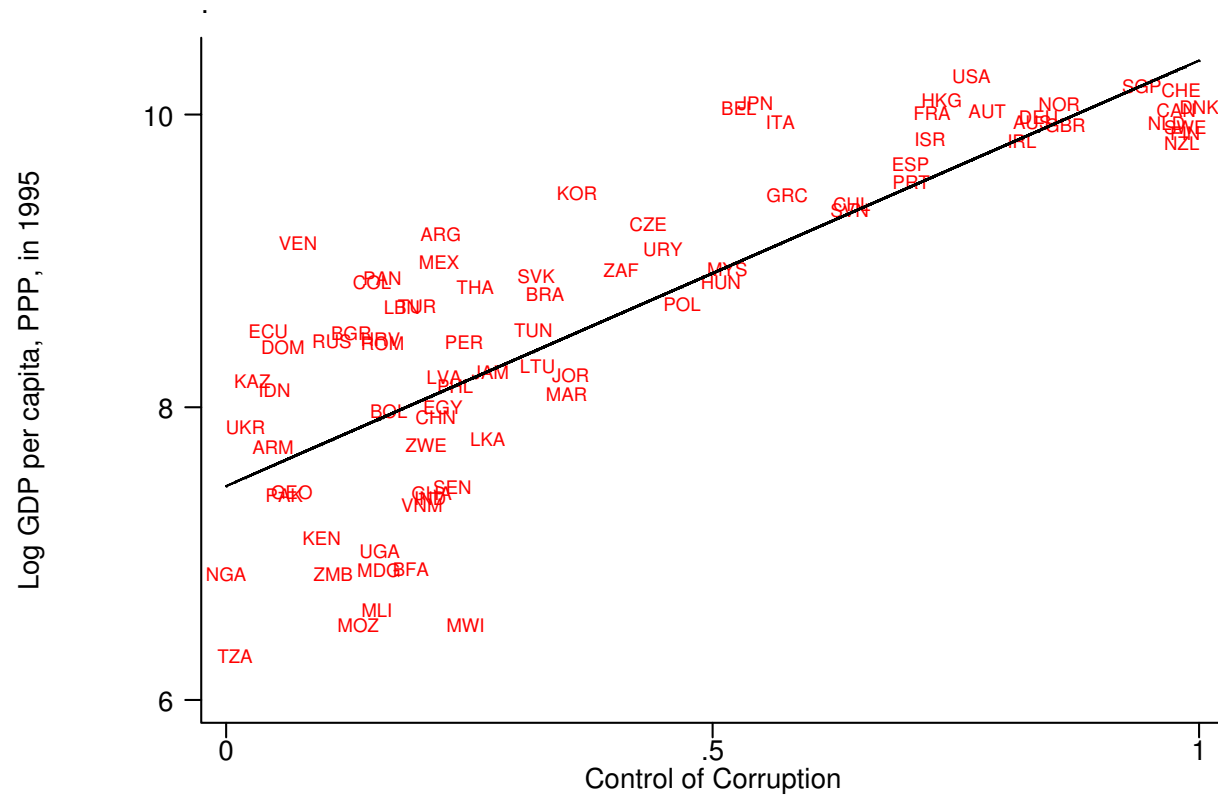
- De jure vs. de facto political power
  - De jure political power: power allocated by political institutions
    - \* e.g., power allocated to a party by an election
  - De facto political power: determined by economic, military or extra-legal means
    - \* e.g., power of rebel groups in a Civil War, or the threat of such groups in peace.
    - \* de facto power typically relies on solving the “collective action problem”

## Institutional Variation

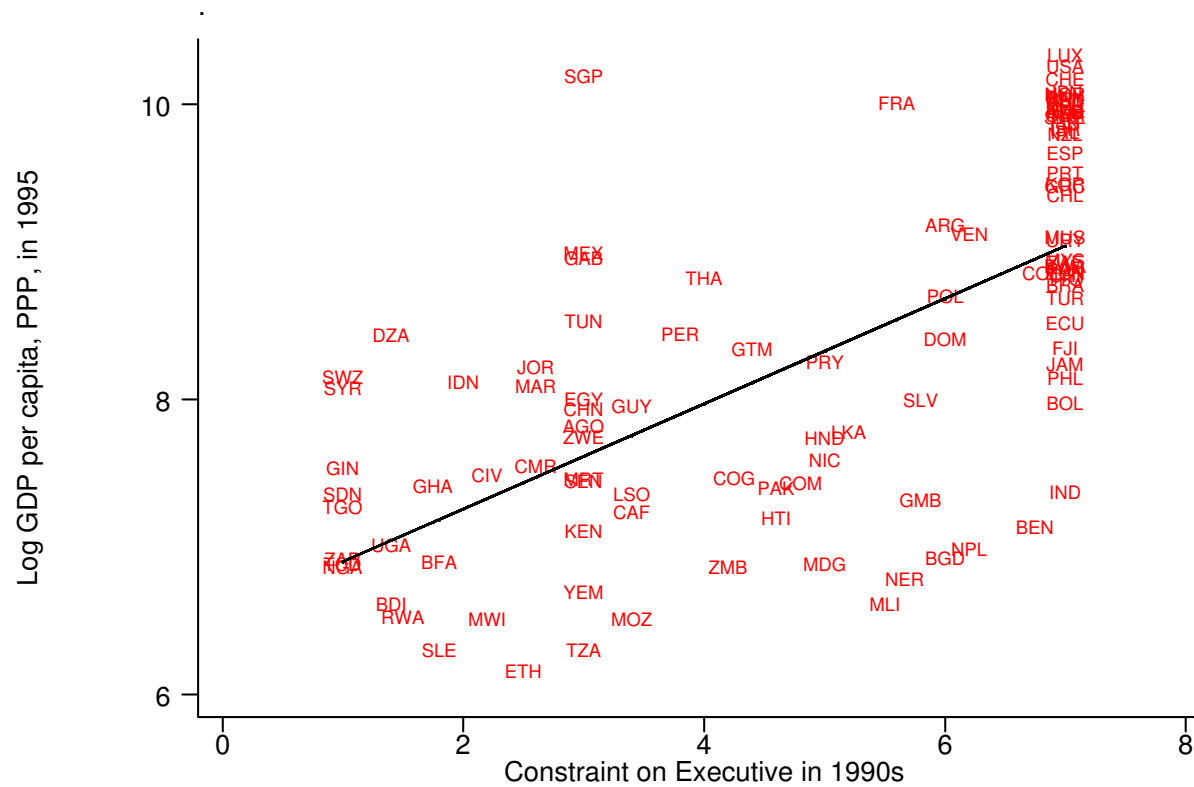
- Big differences in economic and political institutions across countries.
  - Enforcement of property rights.
  - Legal systems.
  - Corruption.
  - Entry barriers.
  - Democracy vs. dictatorship
  - Constraints on politicians and political elites.
  - Electoral rules in democracy.



## Economic institutions and economic performance (2)



# Political institutions and economic performance



## But Institutions Are Endogenous

- Institutions could vary because underlying factors differ across countries.
  - Geography, ecology, climate
  - Culture
  - Perhaps other factors? (affecting exogenous component of productivity or technology)

## Geography Hypothesis: Montesquieu's Story

- Warm climate  $\Rightarrow$  laziness  $\Rightarrow$  poverty and despotism.

“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; laziness there will be happiness.”

Moreover, lazy people tend to be governed by **despots**, while vigorous people could be governed by **democracies**.

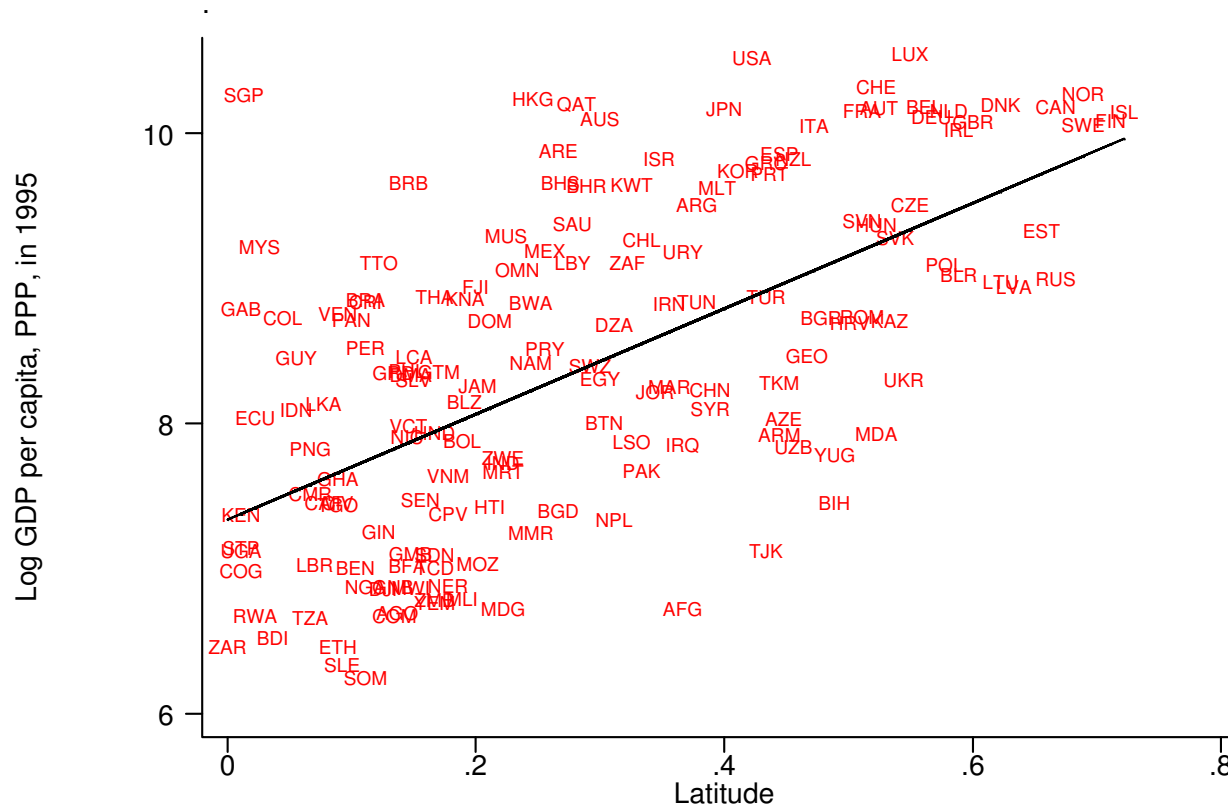
## Geography Hypothesis: Modern Versions (1)

- Jared Diamond: “Guns, Germs and Steel”.
  - Importance of geographic and ecological differences in agricultural technology and availability of crops and animals.
  - Particularly important are differences across continents.
  - But much variation **within** continents.

## Geography Hypothesis: Modern Versions (2)

- Jeff 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 health.”
  - “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”

# Montesquieu's story?



## Empirical Pitfalls of Correlations and Ordinary Least Squares Estimates

- Montesquieu's story an example of **omitted variable bias** and identification problem in empirical work
  - Other omitted factors, e.g., human nature, culture, geography, vary across countries and affect economic performance.
  - These are also correlated with or may have a causal effect on institutions.
- **Reverse causality**:
  - Income affects institutions
- **Attenuation bias**:
  - Measures of institutions very coarse, poorly correspond to conceptual measures, creating “errors in variables” problem.

## Empirical Pitfalls for Geography

- The same concerns apply to the correlation between geographic characteristics and income per capita.
- Correlation does not make causation.

## Need for Exogenous Variation

- Exploit “natural experiments” of history, where some societies that are otherwise similar were affected by historical processes leading to institutional divergence.
  - Identify “instruments” for institutions;
    - \* that is, a source of variation that affects institutions, but has no direct effect or an effect working through omitted variables, on income.
- Examples of potential natural experiments of history:
  1. European colonization
  2. South vs. North Korea
  3. Chinese experience

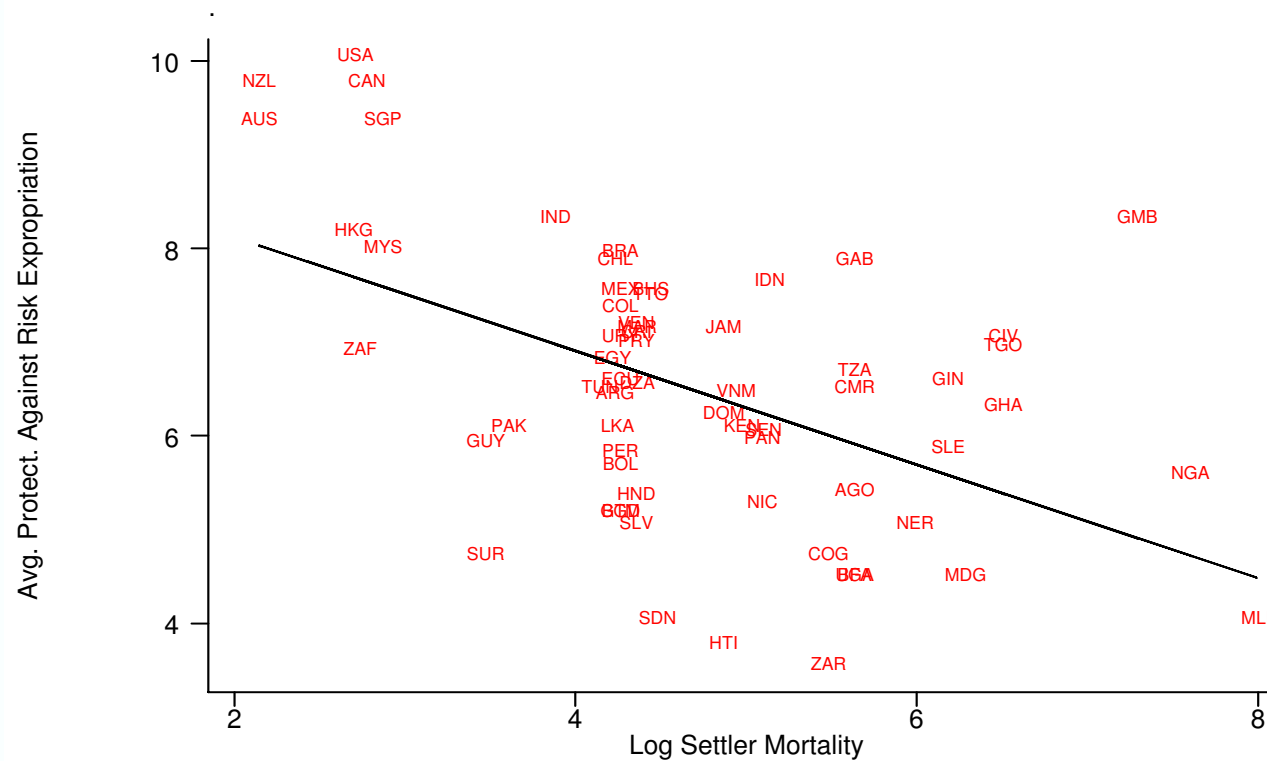
## European Colonization as a “Natural Experiment”

- Why a “natural experiment”?
  - Because many factors, including geography, ecology and climate, are held constant, while Europeans set up different institutions in different parts of the globe.
- Potential “Instrument” suggested by this historical episode: **settler mortality**.

## Settler Mortality As an Instrument: The Argument

- Settler mortality affects settlement decisions of colonizers.
- With high settler mortality, colonizer chooses **extractive** institutions, which are bad for long-run growth.
- With low settler mortality, colonizer more likely to settle and choose **developmental** institutions.
- Colonial institutions have a tendency to **persist**.
- Settler mortality has no direct effect on current performance, except its desired effect through institutional development.
  - **Identification assumption**: check by controlling for various channels of influence and falsification exercises.
- Mechanism: (potential) settler mortality  $\Rightarrow$  settlements  $\Rightarrow$  early instit's  $\Rightarrow$  current instit's  $\Rightarrow$  current performance

# Settler mortality and current institutions



## The first stage

First Stage Regressions:

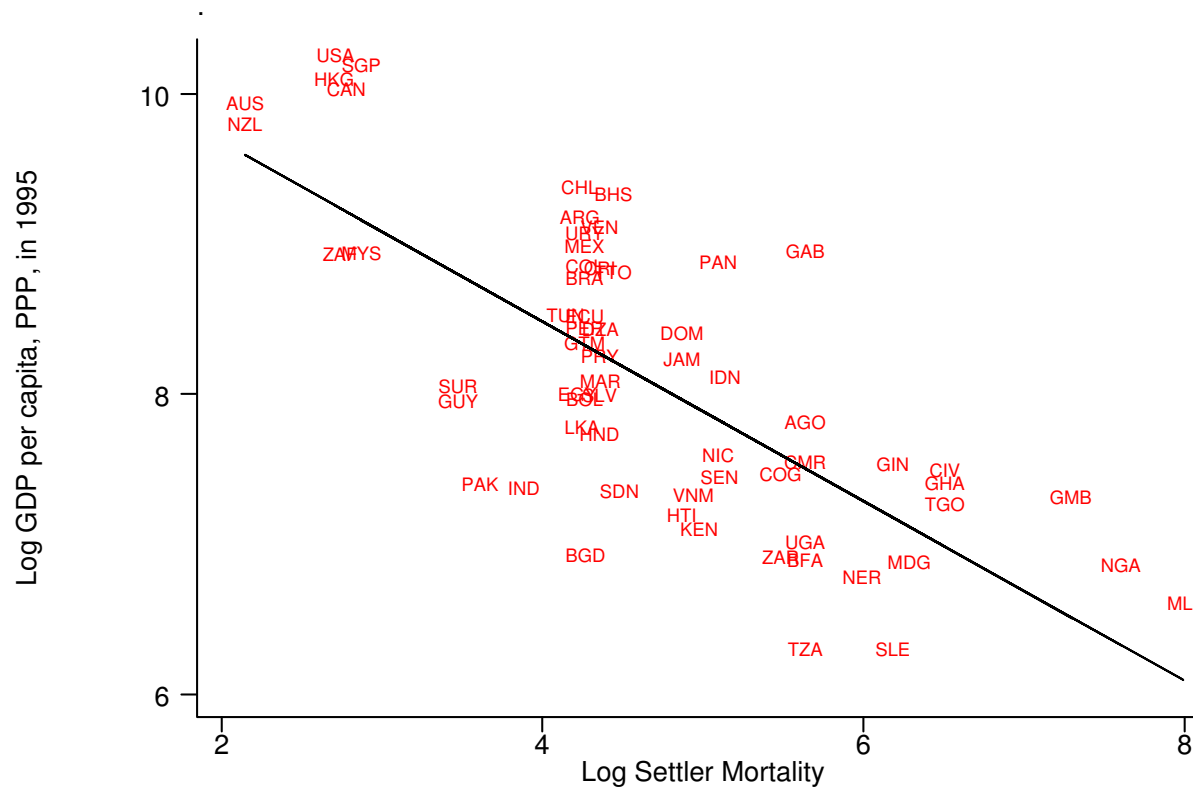
*Dependent variable is protection against risk of expropriation*

	All former colonies	All former colonies	All former colonies	Without neo- Europes
Settler Mortality	-0.61 (0.13)	-0.5 (0.15)	-0.43 (0.19)	-0.37 (0.14)
Latitude		2.34 (1.37)		
Continent Dummies (p-value)			[0.25]	
R-Squared	0.26	0.29	0.31	0.11
Number of Observations	63	63	63	59

Standard errors in parentheses

Sample limited to countries for which have GDP per capita data

# The reduced form: settler mortality and income per capita today



## The causal effect of institutions: basic 2SLS estimates

Second Stage Regressions:  
*Dependent variable is log GDP per capita in 1995*

	All former colonies	All former colonies	All former colonies	Without neo- Europes
Protection Against Risk of Expropriation, 1985-95	0.99 (0.17)	1.11 (0.26)	1.19 (0.39)	1.43 (0.45)
Latitude		-1.61 (1.57)		
Continent Dummies (p-value)			[0.09]	
Number of Observations	63	63	63	59

## The causal effect of institutions: robustness

Second Stage Regressions: all former colonies  
*Dependent variable is log GDP per capita in 1995*

**Instrument is:**

	Log Settler Mortality	Log Settler Mortality	Log Settler Mortality	Log Settler Mortality	Yellow Fever
Protection Against Risk of Expropriation, 1985-95	1.07 (0.27)	0.98 (0.17)	0.87 (0.32)	1.18 (0.84)	0.82 (0.22)
Temperature (p-value)	[0.71]				
Humidity (p-value)		[0.64]			
Malaria			-0.28 (0.59)		
Life Expectancy				-0.014 (0.07)	
Number of Observations	63	63	62	62	63

## The Role of Culture (1): The Colonial Experiment

- What is culture?
  - A relatively fixed characteristic of a group or nation affecting beliefs and preferences; e.g. religion.
- Does culture matter in the colonial experiment?
  - Popular view going back to Adam Smith and Winston Churchill that British cultural and political influence was beneficial, at least relative to the French or the Spanish.
- Answer: it does not. The identity of the colonizer is insignificant.

## Revisiting the British effect

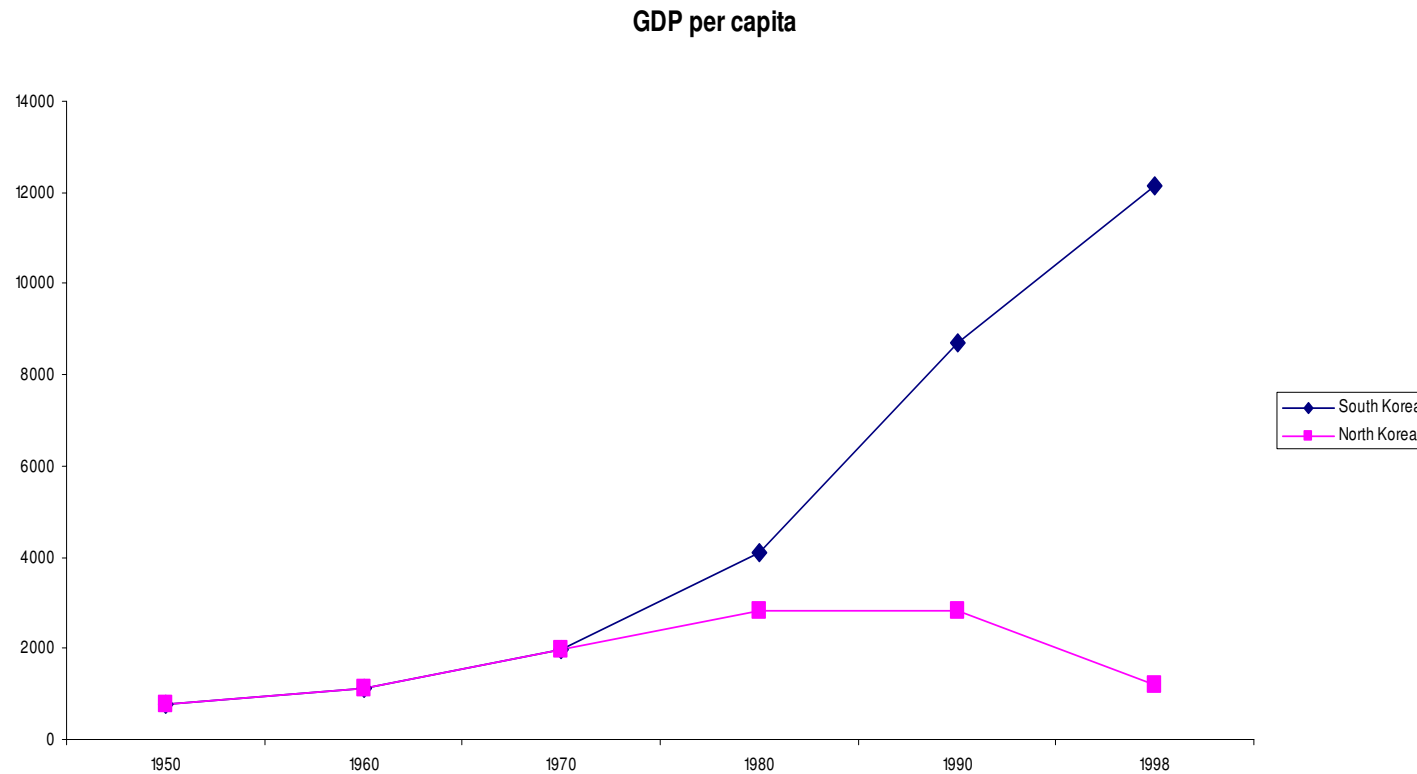
Dependent variable is log GDP per capita in 1995

	Former Colonies	Former Colonies
<i>Second Stage</i>		
Protection Against Expropriation	1.12 (0.23)	1.17 (0.22)
British Colony Dummy	-0.96 (0.39)	
English Legal Origin Dummy		-1.05 (0.37)
<i>First Stage</i>		
Log Settler Mortality	-0.53 (0.14)	-0.53 (0.13)
British Colony Dummy	0.67 (0.35)	
English Legal Origin Dummy		0.70 (0.34)
R-Squared in First Stage	0.30	0.30
Number of Observations	63	63

## The Role of Culture (2): The Korean Experiment

- Korea: economically, culturally and ethnically homogeneous at the end of WWII.
- If anything, the North more industrialized.
- “Exogenous” separation of North and South, with radically different political and economic institutions.
  - ie separation not related to economic, cultural or geographic conditions in North and South
- Big differences in economic and political institutions
  - Communism (planned economy) in the North
  - Capitalism, albeit with government intervention and early on without democracy, in the South
  - Huge differences in economic outcomes.

# North and South Korea

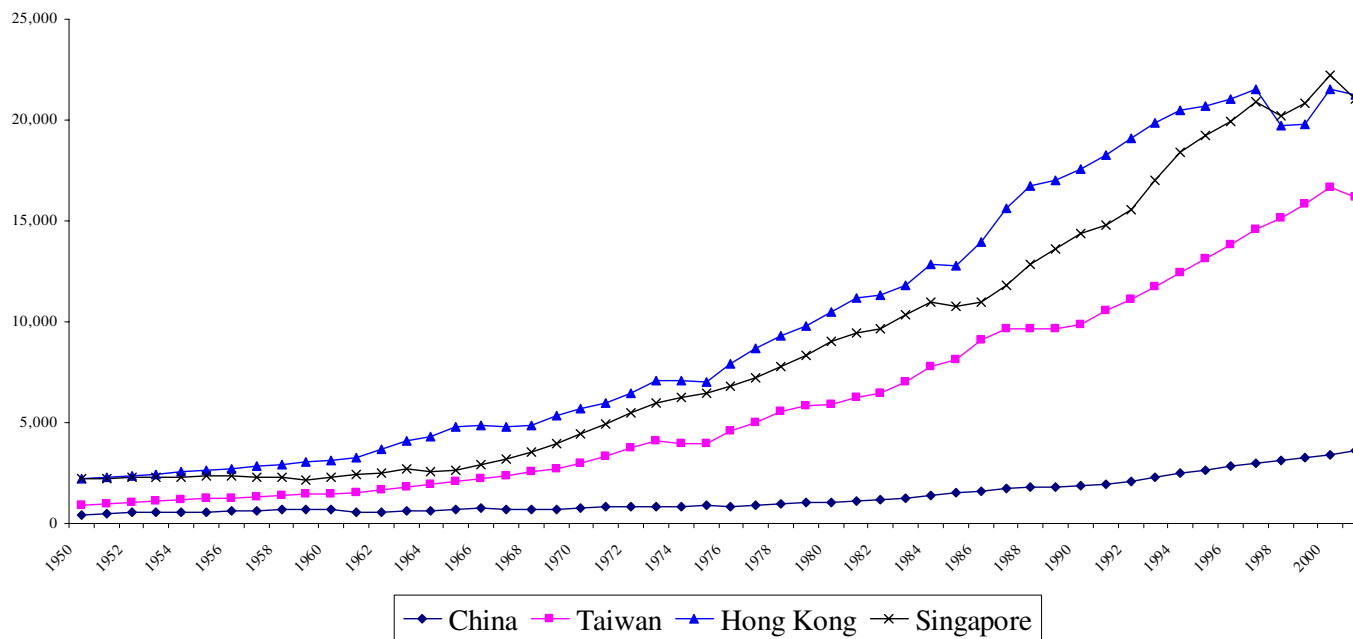


## The Role of Culture (3): The Chinese Experience

- China, Hong Kong, Singapore, Taiwan have many cultural and ethnic similarities
- While China adopted state planning and communist political institutions, Hong Kong, Singapore and Taiwan followed a capitalist path with relatively well-enforced property rights.
- While China stagnated, Hong Kong, Singapore and Taiwan prospered.
- After Mao's death and 1978 reforms, especially the introduction of some basic property rights, changes in economic incentives in China, and now very rapid growth rate.

# Role of culture (4)

GDP per capita in China, Taiwan, and Hong Kong, 1950-2001



## Part 2: Towards a Theory of Institutions. Outline

- Different meta-theories: efficiency, history, ideology and social conflict.
- Historical examples support the social conflict theory:
  1. Land relations in the Dutch East Indies
  2. Early financial development in the U.S. and Mexico
  3. Price regulation in Ghana, Kenya and Colombia
- Anticipating future lectures: on inefficient institutions
  - How they are chosen for distributional consequences
  - How they may be efficient in the short run but not in the long run
  - How they may be changed as a result of political struggles

## Four Meta-Theories of Institutions

1. **Efficiency**: institutions adopted if socially efficient (e.g. promote aggregate growth).
2. **Ideology**: institutions adopted depending on beliefs by elite or citizens as to what is socially efficient.
3. **History**: institutions determined by historical accidents or unusual events, and are unchanging except for random events and future accidents.
4. **Social conflict**: institutions chosen for their distributional consequences by groups with political power.

## Which Approach? (1)

- Efficient institutions view: not a useful framework
  - Although, *everything else equal*, there would be a tendency to adopt efficient institutions ... everything else is far from equal in practice
  - Every set of institutions creates different losers and beneficiaries. Efficient institutions require either the losers to be compensated or the beneficiaries to impose their choice.
  - But in practice, losers generally not compensated ex post, and often can be powerful enough to block institutional change that is beneficial in the aggregate.
  - Empirically, efficient institutions view cannot help us understand why some societies adopt institutions that were disastrous for economic growth.

## Which Approach? (2)

- Ideology view: not a useful framework by itself either
  - Clearly, beliefs across societies differ, and existing regimes remain in place by gaining some degree of approval.
    - \* Propaganda and media extremely important for regime survival.
  - But many empirical patterns cannot be explained by ideology alone.
    - \* In the Korean case, the original divergence in institutions partly related to ideology, but continuation of communist system partly because it is good for those with political power.
  - The same British groups opted for different structures in different colonies:
    - \* e.g., the Puritan colonies in Massachusetts Bay and Providence Island, the U.S. vs. Caribbean.

## Which Approach? (3)

- History: ample evidence that institutional choices persist.
  - This persistence was exploited in the construction of the instrumental variable approach above.
- But they are also choices, not simply dictated by history.
- Need to understand why institutions persist, and why, and how, they change
- Examples:
  - While the communist system persisted in North Korea, it collapsed in Eastern Europe and Russia.
  - Persistence in China until 1978 and change thereafter.
  - Very different institutions in North and South America during the early colonial era and after independence.

## Which Approach? (4)

- Institutions and social conflict:
- (Economic) institutions shape incentives and determine the allocation of resources
  - Each set of institutions creates beneficiaries and losers; certain groups obtain high incomes, rents and privileges.
  - Thus “distributional” implications from institutional choices.
  - Preferences over institutions determined (at least partly) by **their distributional implications**.
  - \* e.g., a monopolist would be opposed to a reduction in entry barriers even if these increase aggregate income.

## Social Conflict and Institutions

- The social conflict approach empirically more promising:
  - We can explain inefficient choices, even when their consequences are understood by the key actors.
  - Also we can investigate when institutions will be more or less efficient, that is, “comparative statics” exercises.

## Land Relations in Dutch Indies (1)

- Dutch East India Company (V.O.C.) monopolizing the production of valuable spices (nutmeg, cloves and mace) in the Moluccas, in particular in Ambon and Banda islands.
- Different indigenous organization between the islands.
- van Zanden (1993):
  - “[in Ambon] The Company ... took over the existing feudal structure of raising tribute,” monopolizing supply (excluding the British and Portuguese).
- They also used this feudal structure to increase the output of cloves.

## Land Relations in Dutch Indies (2)

- In Banda, in contrast, there were many small autonomous city states, but
  - “There was no hierarchial social and political structure that could impose the will of the V.O.C. ...”, especially stopping locals from selling nutmeg to the British and Portuguese.
- The V.O.C. decided to change the economic institutions on Banda, via a radical solution:
  - “Through military action, the V.O.C. kiled most of the population in 1621...” and completely reorganized the production of nutmeg and established a slavery system, with the slaves supplied by the V.O.C. and its former employees as planters.

## Financial Institutions in Mexico and the U.S. (1)

- Big differences in the structure of banking between the U.S. and Mexico in the 19<sup>th</sup> century, during the critical period of divergence.
- Haber(2001)
  - “Mexico had a series of segmented monopolies that were awarded to a group of insiders. The outcome, circa 1910, could not have been more different: the U.S. had roughly 25,000 banks and a highly competitive market; Mexico had 42 banks, two of which controlled 60 percent of total banking assets, and virtually none of which actually competed with another bank.”
- Adverse consequences for Mexican industry.
  - Lending by monopoly banks to inefficient firms of friends and associates, and of the politically powerful.

## Financial Institutions in Mexico and the U.S. (2)

- Why? Because of the power of insiders and state governments in Mexico, supported by the dictatorship of Porfirio Diaz.
- In 1789, the U.S. also similar.
  - Haber: [in the U.S. in late 18<sup>th</sup> century] “... it was not in the interest of state governments to charter large number of banks and create a competitive market for banking services”
  - Many U.S. politicians, including Alexander Hamilton, wanted to create monopolies.
- But expanding frontier, which caused interstate competition, and universal male suffrage made this system unsustainable.
- Insiders did not have enough political power to impose their preferred (potentially inefficient) institutions.

## Price Regulation(1)

- Another form of economic institution: marketing boards regulating agricultural prices.
  - Originally, introduced to prevent large fluctuations in farm revenues
- Bates (1981): very different form of price regulation in LDC agricultural markets.
- Ghana and Zambia: low prices paid to farmers through marketing boards, surplus transferred to politicians or urban groups.
- Kenya and Colombia: much more pro-farmer policies and institutions.

## Price Regulation(2)

- Why?
- In Ghana and Zambia, but not in Kenya and Colombia, farmers had little political power.
  - In Ghana, cocoa farmers small and unorganized, and also from different ethnic group than the ruling party, while urban groups politically more powerful.
  - In Kenya, large farmers with greater political power.
  - In Colombia, farmers with greater power through more democratic and competitive politics.
    - \* Interestingly, during the military regimes of the '50s when democratic politics suspended, pricing was set to extract surplus from farmers.

## Summary of the Three Cases

- Institutions not dictated purely by history, but chosen by society.
- Moreover, they are chosen, not mainly for efficiency nor because of differences in beliefs, but **for their distributional consequences**.
  - Social conflict and political power important.
  - In all cases, economic institutions chosen for their consequence, and particularly *the rents* created for the politically powerful groups.
  - In almost all cases, the resulting economic institutions harmful **for certain groups**, and in many cases harmful **for society at large**.

## Further Lessons from the Examples

- Key lesson:
  - political power  $\Rightarrow$  economic institutions
- Kenya vs. Ghana suggests a link between economic institutions and political power;
  - Kenyan farmers that were larger and wealthier had political power, while small farmers in Ghana did not.  
economic institutions  $\Rightarrow$  political power
- Mexico vs. U.S. and Colombia vs. Ghana show the influence of political institutions on political power
  - political institutions  $\Rightarrow$  political power
- And we will in later lectures:
  - political power  $\Rightarrow$  political institutions.

## Towards a Theory of Institutions: Comparative Statics

- When do we expect a society to adopt good institutions?
  1. When those holding political power also will benefit from well-enforced property rights (and financial development, free entry, functioning markets, etc.)
  2. When there are relatively few resources to be extracted or exploited using political power.
  3. When constraints on political power preclude expropriation or the imposition of institutions detrimental to excluded groups.
  4. When the scope for manipulation of factor prices is relatively small.

## Comparative Statics at Work

- Can we use these comparative statics to understand the colonial experience?
  - Colonial powers chose better institutions when they themselves would benefit from well-enforced property rights, because they were the main inhabitants of the land.
  - Moreover, as we will see later lectures, they also tended to opt for better institutions when there was less to extract, especially less labor to exploit.
  - In low-settler-mortality places they developed democratic institutions and these institutions placed further checks on the development of bad policies in the future.
- Other applications in later lectures.

## Towards a Theory of Institutions (2)

- Institutions may be relatively more efficient (or less distortionary) in the short run than in the long run; issues of *appropriate* institutions.
- Oligarchic structures, where the rich dominate politics, may generate growth in the short run if it protects the property rights of the most efficient entrepreneurs.
- However, it may generate potential expropriation and barriers to entry, threatening future productive entrepreneurs.
- This is consistent with the Rise and Fall of Oligarchic societies such as Venice and the Dutch Republic.

## Towards a Theory of Institutions (3)

- Institutions may be changed as a result of political struggles.
- Recall de facto vs. de jure political power. The former is transitory while the latter is persistent.
- When a group out of power solves the collective action problem and gains de facto political power, it may require a change in de jure political power.
- This will help us understand the emergence and consolidation of democracy.

## Conclusions (1)

- Institutions matter
- Although ideology and history influence institutions, in many cases institutions emerge because of their distributional consequences.
- Although everything else equal more efficient institutions more likely to arise, there will typically be major social conflicts over institutions.
- Then the choices benefiting politically powerful groups, not the society as a whole, more likely to emerge.

## Conclusions (2)

- Summary: towards a dynamic theory

