

# The Wealth of Nations

- the question in economics – why are some nations rich, some poor
- is it geography, institutions, human capital, physical capital, economic policy?
- geography: natural resources (oil, copper), terrain (mountains, water, good soil), climate (close to equator, disease, weather)
- competition among nations (Diamond): may be determined by geography

## ***Institutions versus Policy***

- institutions: form of government (democracy, autocracy), related institutions like freedom of the press
- policy: free trade, monopolization, macro-policy, debt, education
- institutions and policy operate in part through physical and human capital – incentives and opportunities for investment
- what are institutions and policies in economic terms?

## ***Inclusive versus Extractive Institutions***

- Acemoglu/Robinson
- inclusive – many people participate in decision making: western liberal democracies
- extractive – a small elite exploits everyone else: Latin America, Africa
- note that “extractive” is not the opposite of “inclusive”: could have a benevolent dictator
- a useful starting point for debate

## ***The Colonial Origins of Comparative Development: An Empirical Investigation***

- examine European colonies
- some places settled (inclusive)
- other places ruled (extractive)

endogeneity of settlement and institutions

- use instrumental variables – mortality (disease): settle where low mortality
- geography explains nothing, settlement explains everything

## ***Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution***

- still looking at colonies
- the richest places in 1500 are now the poorest
- exploit the rich by creating extractive institutions
- for the poor create inclusive institutions to encourage development

## ***The Evidence***

- US, Canada, Australia rich, settled, used to be poor
- South America is middle class, semi-settled used to be rich
- Africa is poor, unsettled, and used to be poor
- Central America is poor, unsettled, used to be rich
- India is poor, unsettled, used to be rich
- India, however, has very good institutions and very poor economic policies
- China is doing well, unsettled, and used to be rich

## ***Historical Wealth***

- Europe and Asia were rich in 0-1000 AD
- the rest of the world was poor
- no the Incas, Aztecs, Toltecs, Mayans weren't close to Rome or the Han or the Song
- US/Canada/Australia are Western Europe transplanted

***Edward Glaeser, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer***

- regressions of institutions on outcomes: highly questionable data because the measures of institutions change from year to year
- if you use longer terms measures the effect goes away
- settlers: do they bring institutions or human capital?
- policy seems to matter – institutions in China did not change between Mao and Deng – but policies and outcomes did like crazy



## *A Tiny Theory of Institutions*

$N$  people can either contribute to a public good or not (“be a good citizen and obey the rules”)

if  $M$  contribute then utility of each individual is  $u(M)$  increasing with  $u(0) = 0$  and  $u(N) > 1$ , contribution costs 1

optimum is for everyone to contribute

the game is repeated, discount factor  $\delta$

everyone contributes in period 1, afterwards continue to do so as long as everyone has always contributed, otherwise don't contribute

so  $u(N) - 1 > (1 - \delta)u(N - 1)$

for large enough  $\delta$  this is satisfied

“contagion” equilibrium – doesn't really work in a large population due to noise, but the right general idea

## ***Wealth versus Duration***

- something missing
- a society that was very wealthy but only lasted five years wouldn't be very desirable
- we are interested both in what generates wealth and what generates duration
- we want both
- what we see in the data are the most durable institutions

## ***Economic Sociology***

- breakdown of social order can occur for internal or external reasons, or more likely a combination of the two
- poor institutions create vulnerability to external as well as internal disruptions
- in standard economic analysis pretty much ignore the fact that - for example - a severe recession can lead to a breakdown of social order (Leijonhufvud)
- in political economy more effort to contemplate the consequences of policies that might lead to the breakdown of social order
- but difference between efficiency (accounting for costs of breakdown properly) and survivability (minimizing the probability of breakdown) – the latter determining what we see as opposed to what we might want
- should we be studying Switzerland?

## ***Social Breakdown***

- costs are highly uncertain and it is unlikely that there is much agreement
- the one thing we can be fairly confident of is that some people have more to lose, so presumably will care more about breakdown

## ***Consequences of Failure***

- costs of failure plays an important role in the literature on bankruptcy
- Weiss [1990] direct costs about 3% of book value of debt; Warner [1977] direct costs about 1% of value prior to bankruptcy
- Nikolaos et al [2014] about 2% annual excess deaths in Greece due to crisis
- Syria, French and Russian revolutions?

## *What Happens Next?*

- Russia

Imperial → Revolution → Communist; welfare comparison of imperial versus communist Russia?

- Rhodesia/Zimbabwe

white rule → civil war → majority rule; low welfare became even lower welfare

- El Salvador

dictatorship → civil war → democracy; welfare probably improved

- United States

British rule → war → domestic rule; resulted in very strong institutions

## ***The Economic Profession***

- we do not consider the costs of institutional failure
- we have no theory about the “right” level of national defense
- we do not consider the impact of public education on social cohesion
- yet we spend tons of time and effort assessing things like the economic consequences of minor changes in subsidizing early childhood education
- psychologists see some individual behavior and think it looks irrational and immediately assume it is so
- we rightly look deeper to see if perhaps it serves some useful role
- economists see some government behavior and it looks inefficient
- we need to be more like Earl Thompson – we need to look deeper to see if perhaps it serves some useful role

## *Telecom Italia*

- the Spanish shouldn't own it because it poses a national security threat?
- rightly dismissed as silly and self-serving
- but the logic of the argument should not be thrown out
- familiar argument: subsidize the automobile industry to have excess capacity in case we need to build tanks (also aerospace, merchant marine)
- just because an argument is self-serving and benefits a particular group does not make it wrong
- yet we throw them away without scrutiny
- should not “throw out the baby with the bath water”
- need proper tools or a “proper model”



## ***Towards a Model***

Mechanism design problem old part:

players  $i = 1, \dots, N$

outcomes  $y \in Y$  utility  $u^i(y)$  and welfare  $w(y)$

feasible game forms  $G \in \Gamma$  with actions  $a^i \in A^i$  with  $G(a) \in Y$

$A^*(G)$  set of equilibria for the game  $G$

Institutional design problem new part:

$\pi(y)$  probability of institutional failure

$C$  welfare cost of institutional failure

## *The Three Objectives*

- the “economic” analysis: what economists actually do  
choose  $G \in \Gamma$  and  $a \in A^*(G)$  to maximize  $Ew(y)$
- what economists should do  
choose  $G \in \Gamma$  and  $a \in A^*(G)$  to maximize  $Ew(y) - \pi(y)C$   
yes, we could have done this, but we never have
- what evolution does (a positive theory of institutions we see)  
choose  $G \in \Gamma$  and  $a \in A^*(G)$  to minimize  $\pi(y)C$

## ***Tax Them All***

- a puzzle: the tax system does not transfer that much income
- we tax the middle class and pay the same people back with government services and subsidies
- good example: Sweden – child care, health care, transportation, etc. etc.
- economists look and see inefficiency
- but this type of government behavior is ubiquitous
- so maybe we should look deeper?
- taxes are hard to avoid or use punitively
- benefits can be selectively withheld – hence used to induce “socially desirable” behavior

## ***A Model of Social Adhesion***

- a continuum of identical players
- institution designer sets a tax rate  $\tau \in [0, 1]$
- players suffer i.i.d. uniform shocks  $\eta^i \in [0, 1]$
- players produce output  $y^i$  at cost  $c(y^i)$
- players choose “adherence”  $a^i \in \{0, 1\}$  at a cost of  $a^i \zeta(\eta^i)$  where  $a^i = 1$  means “adhere”
- adherence means: be deferential to government authority, send your children to listen to government propaganda, speak the official language, report people who violate this social norm and so forth

## Assumptions

$y$  is mean output  $\phi$  is the fraction of adherents,  $x = y - c(y)$

we assume that  $c(y)$  is smooth, strictly differentiable increasing and strictly differentiable convex with  $c'(0) < 1$

we assume that  $\zeta(\eta^i)$  is smooth and strictly differentiable increasing and that  $\zeta(0) = 0$

taxes are collected and distributed equally among adherents only

we let  $b^i$  be the transfer payment, zero for non adherents and  $\tau y / \phi$  for adherents, that is  $b^i = a^i \tau y / \phi$

collapse occurs with a probability  $\pi(x, \phi)$  depends on the net output  $x = y - c(y)$  the fraction of adherents  $\phi$

smooth and strictly differentiable decreasing in  $x, \phi$

## Preferences

per capita cost of collapse  $C$

utility  $(1 - \tau)y^i + b^i - c(y^i) - \pi C - a^i \zeta(\eta^i)$

plugging in for  $b^i$

$(1 - \tau)y^i - c(y^i) + a^i[\tau y/\phi - \zeta(\eta^i)] - \pi C$

aggregate adherence cost  $Z(\phi) = \int_0^\phi \zeta(\phi') d\phi'$

standard economic welfare  $x$

public good analysis  $x - \pi(x, \phi)C - Z(\phi)$

evolutionary  $-\pi(x, \phi)$

## ***About the EU***

- either the institutions will become stronger or the EU will fail
- every member state (UK, Switzerland currently) wants to pick among a menu of options rather than accept the package
- all of the weaker economies would like to be able to undertake borrowing guaranteed by the stronger economies (“end of austerity!!”)
- the point is that no member state wants the entire package and unless they are forced to comply, if each chooses a different set of menu options there is no “EU”
- the one simple and low-cost thing the EU could do but doubtless will not:
  - make English the official second language and subsidize English language education in the schools



## *Young versus Old*

- schools serve to create social solidarity
- it works in the EU: look at the opinion polls on Brexit
- the young think they are European, the old think they are British
- note that this created a true crisis – this was the last chance to preserve Britain
- good institutions led to a bad outcome
- genuine social conflict can't be papered over by good institutions except in the long-run

## ***Role of Groups in Social Breakdown***

- internally the breakdown of social order we think of as being primarily due to conflict between groups
- Olson theory: groups attempt to gain monopoly power, gradual accretion of monopoly power by more and more groups leads to economic breakdown
- Levine/Modica: breakdown due to combination of unlucky circumstances, a smaller number of which a robust system can recover from
- the importance of randomness in determining long-run outcomes

## ***Social Solidarity***

- social solidarity of groups isn't something “mainstream” economics has traditionally dealt with
- historically (see Marx) when economics has dealt with groups it hasn't done an especially good job
- want to emphasize the difference between the strategic and non-strategic aspects of group behavior
- focus primarily on groups that exist for exogenous reasons: trade unions, farm lobbies, banking lobbies, and so forth
- social interaction within the groups occur because of the nature of economic activity in these groups, because of commonality of knowledge and interest, exchange of ideas and learning, and so forth

## ***Economic Psychology: does it help us understand groups?***

- behavioral forces are weak, but this is relevant where individual incentives are weak – for example, voting
- probability assessments, use of information (members of a large group have little incentive to acquire information) - manipulation of information, propaganda
- learning (are incentive constraints satisfied?) - lack of learning especially relevant during unusual times (social breakdown)
- self control - relevant for what happens in crowds?
- reference points, habit formation - in relation to fairness?
- social preferences and fairness - committed voters
- (ambiguity aversion – no idea)

## ***Are Groups Concerned with Fairness?***

- groups are concerned with "fairness" (empirically - mostly "fairness for us" - but people do vote to spend their taxes on transfers to others)
- where are we on theories of fairness?
- altruism and spite versus fairness
- strategic versus non-strategic retaliation
- conflict and consistency of objectives - makes compromise hard (we both fight unless we get 2/3rds the pie); but we don't always see conflict
- what is fair? not yet a good answer in the behavioral literature, in fact serious problems with existing theories (concerning lotteries)
- maybe the what groups perceive as fair is strategic?

## *Groups and Approval*

group members seek approval from other group members

approval isn't so different from other economic commodities - people like to talk, share ideas, be approved of, tell stories, hang-out etc.

- can be traded in markets or through barter
- we have measurements: value of cell phone bandwidth and television bandwidth
- obviously some people are more valuable to you than others (extreme example: people who don't speak a language you know are pretty useless to you)
- relevance of networks should be apparent

## ***The Strategic Element***

usually political economy models use a pretty mechanical model of approval

but:

- it isn't just that you “are a member” or “are not a member” you either “adhere to group norms” or you “don't adhere to group norms” and those norms are endogenous
- if you fail to adhere you get punished, many ways, including exclusion/ostracism

we have a very good model of this: not the contagion model, but the Kandori repeated game model of social norms

## ***Conflict or conflict?***

- strikes as creating incentive compatibility
- sustain a particular outcome, force revelation of private information



## *The logic of crowds and protests*

- things can get out of hand

this



may lead to

this



## ***Groups and Polarization***

- tipping point of polarization - people forced to choose sides (Iraq)
- leads to conflict and chaos; prevents economic progress by keeping people from forming economic alliances
- strong central authority keeps this in check (looks what happens when the strong central authority collapses - India, Africa, Yugoslavia, etc.)
- yet if there is too little polarization it is a threat to the central authority (dictators in particular often encourage a moderate amount of polarization) - play both ends against the middle, divide and conquer
- some benefit from polarization
- so: how do we prevent monopolization and prevent conflict?