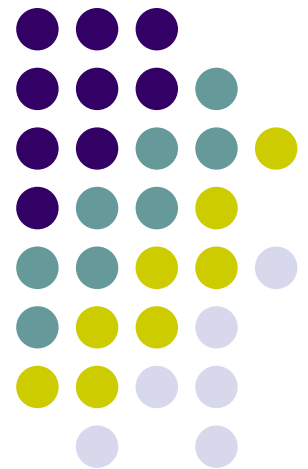


Introduction to Economics of Development

Institutions & Economic
Development





Institutions: basic concepts

- Douglass North (1990):

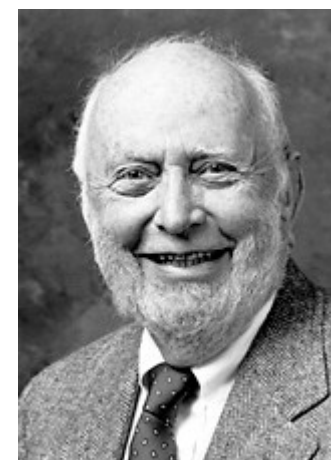
Institutions “are the rules of game in a society or more formally, are the humanly devised constraints that shape human interaction.”

In plain words, institutions are the rules of the game in economic, political and social interactions that shape human incentives.

- Formal rules vs. Informal rules

Formal: economic/political systems, constitutions, laws, regulations

Informal: conventions, social norms, self-imposed code of conduct



Douglass North
Nobel Prize, 1993



Institutions: basic concepts

- Institutions include a broad range of rules that can have many sub levels, and they are quite different across countries.
 - Economic institutions
 - Economic systems: how countries organize their economic activities
 - Capitalism vs. socialism
 - Market vs. state planning
 - Economic institutions related to how economic activities are facilitated or regulated (closely tied to economic systems)
 - Property rights protection, contract enforcement
 - Financial system
 - Tax systems: regressive, progressive or flat tax rate
 - Regulatory system: competition, entry barrier, monopoly



Institutions: basic concepts

- Institutions are a broad range of rules that can have many sub levels, and they are quite different across countries.
 - Economic institutions
 - Political institutions
 - Democracy vs. dictatorship, authoritarianism, aristocracy or other non-democracies
 - Constitutions: separation of powers, election rules, etc.
 - Constraints on elites, etc.
 - Legal systems: closely tied to economic/political institutions
 - Economists are especially interested in legal origins and their impact on economic performance
 - English Common law
 - Civil-law: French, Germany, Scandinavian civil-law



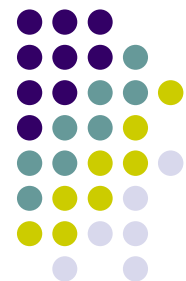
Motivation for an Institution Story

- Vast differences in prosperity across countries today: Income per capita in sub-Saharan Africa on average $1/20^{\text{th}}$ of U.S. income per capita
- Why?
- Standard economic answers:
 - 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 enough in R&D and technology adoption, and don't organize their production efficiently)



Motivation for an Institution Story

- Standard economic theories failed to answer the following:
 - Why do some countries invest less in physical and human capital?
 - Why do some countries fail to adopt new technologies and to organize production more efficiently?
- The answer to these questions is related to the *fundamental* causes of differences in prosperity.
- Potential fundamental causes:
 - Institutions (human-devised rules of the game to shape incentives)
 - Geography (exogenous differences of environment)
 - Culture (differences in beliefs, attitudes and preferences...sometimes it's hard to differentiate culture from institutions, esp. when you think of culture as one kind of informal rules)



Institutions Quality measured by Index of Economic Freedom



Countries

Sort Alphabetically

Distribution of Global Economic Freedom

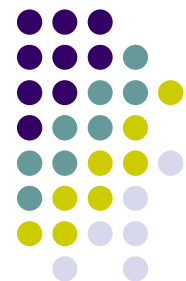


Country	Rank	Freedom %	Country	Rank	Freedom %	Country	Rank	Freedom %
Hong Kong	1	[90.3]	Albania	56	[63.3]	Ivory Coast	111	[54.9]
Singapore	2	[87.4]	South Africa	57	[63.2]	Nepal	112	[54.7]
Ireland	3	[82.4]	Jordan	58	[63.0]	Croatia	113	[54.6]
Australia	4	[82.0]	Bulgaria	59	[62.9]	Tajikistan	114	[54.5]
United States	5	[80.6]	Saudi Arabia	60	[62.8]	India	115	[54.2]
New Zealand	6	[80.2]	Belize	61	[62.8]	Rwanda	116	[54.1]
Canada	7	[80.2]	Mongolia	62	[62.8]	Cameroon	117	[54.0]
Chile	8	[79.8]	United Arab Emirates	63	[62.8]	Suriname	118	[53.9]
Switzerland	9	[79.7]	Italy	64	[62.5]	Indonesia	119	[53.9]
United Kingdom	10	[79.5]	Madagascar	65	[62.4]	Malawi	120	[53.8]
Denmark	11	[79.2]	Qatar	66	[62.2]	Bosnia and Herzegovina	121	[53.7]
Estonia	12	[77.8]	Colombia	67	[61.9]	Gabon	122	[53.6]
Netherlands	13	[76.8]	Romania	68	[61.5]	Bolivia	123	[53.2]
Iceland	14	[76.5]	Fiji	69	[61.5]	Ethiopia	124	[53.2]
Luxembourg	15	[75.2]	Kyrgyz Republic, The	70	[61.1]	Yemen	125	[52.8]
Finland	16	[74.8]	Macedonia	71	[61.1]	China	126	[52.8]
Japan	17	[72.5]	Namibia	72	[61.0]	Guinea	127	[52.8]
Mauritius	18	[72.3]	Lebanon	73	[60.9]	Niger	128	[52.7]
Bahrain	19	[72.2]	Turkey	74	[60.8]	Equatorial Guinea	129	[52.5]
Belgium	20	[71.5]	Slovenia	75	[60.6]	Uzbekistan	130	[52.3]
Barbados	21	[71.3]	Kazakhstan	76	[60.5]	Djibouti	131	[52.3]
Cyprus	22	[71.3]	Paraguay	77	[60.5]	Lesotho	132	[51.9]
Germany	23	[71.2]	Guatemala	78	[60.5]	Ukraine	133	[51.1]
Bahamas	24	[71.1]	Honduras	79	[60.2]	Russia	134	[49.9]
Taiwan	25	[71.0]	Greece	80	[60.1]	Vietnam	135	[49.8]



Why are institutions so important?

- Institutions define *incentive structure* of societies, and more specifically economies → People respond to incentives → institutions shape or determine economic performance.
- Some examples (how you are going to respond in these situations):
 - First, you're a college graduate and living in a country where firms are mostly state-owned, and each worker is paid the same amount according to their education level, i.e., college grads all earn the same amount and that's 20% more than high school grads, and so on, and managers earn slightly more than everybody else because of extra responsibilities.
 - 1) If you are the worker;
 - 2) If you are the manager;
 - 3) What if are planning for a college degree.
 - Second, you have some wonderful ideas that will potentially make this world much better but you are living in a country with huge government bureaucracies that make it very hard to start your own business and government also imposes heavy income tax, especially on high-income group.



U.S. and Europe: Different Institutions, Different Incentives and Different Performance

Table 1

Output, Labor Supply, and Productivity

In Selected Countries in 1993–96 and 1970–74

Period	Country	Relative to United States (U.S. = 100)		
		Output per Person*	Hours Worked per Person*	Output per Hour Worked
1993–96	Germany	74	75	99
	France	74	68	110
	Italy	57	64	90
	Canada	79	88	89
	United Kingdom	67	88	76
	Japan	78	104	74
	United States	100	100	100
1970–74	Germany	75	105	72
	France	77	105	74
	Italy	53	82	65
	Canada	86	94	91
	United Kingdom	68	110	62
	Japan	62	127	49
	United States	100	100	100

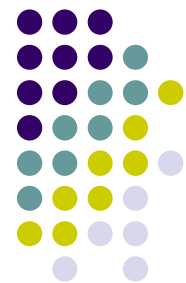
*These data are for persons aged 15–64.
Sources: See Appendix.

Questions:

>Why Europeans work much less than Americans?

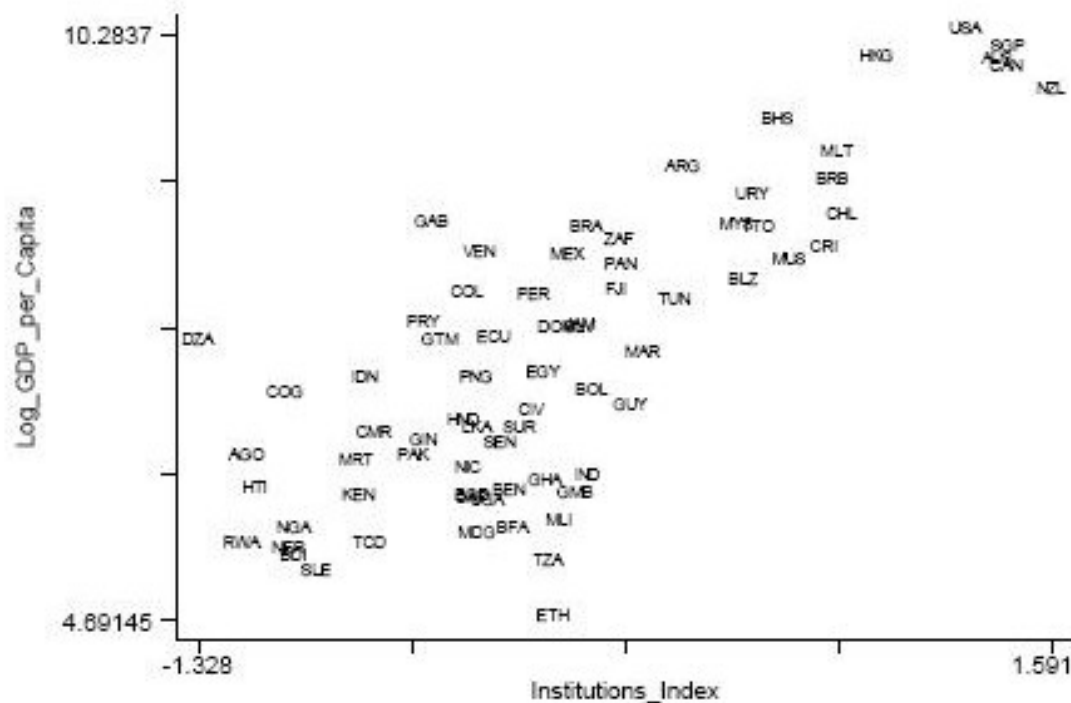
>Is it because Europeans have different tastes from Americans, i.e., they just prefer more leisure time, enjoy life more?

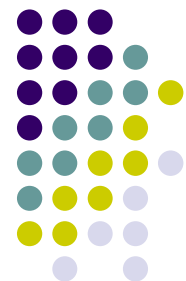
>If you are going to test whether tastes can explain the differences in hours worked, what additional information could help you?



Institutions and Economic Performance

Figure 3: Logarithm of GDP per Capita in 1995 vs. Institutions Index





What's Happening 04/01/08

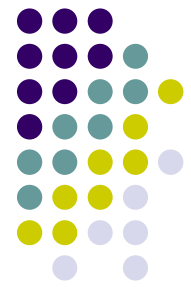
ECONOMIC STIMULUS ACT OF 2008

- One-time tax rebate payments made to over 130 million households
- Individuals receive \$600 (\$1200 if married filing jointly) plus \$300 per child.
- Payments phased out for those making more than \$75,000.
- \$160 billion dollars or a little over 1.1 % of GDP.
- Question: What will households do with this money? Will they spend it or will they save it?

CNN/Opinion Research Corporation Poll. March 14-16, 2008. N=1,019 adults nationwide. MoE ± 3 .

"As you may know, most taxpayers will receive a rebate check of several hundred dollars from the federal government sometime in the next few months. If you receive a tax rebate, what will you do with that money: spend it, save or invest it, pay off bills, or donate it to charity?"

	Spend	Save or Invest	Pay Off Bills	Donate to Charity	Unsure
	%	%	%	%	%
3/14-16/08	21	32	41	3	2



What's Happening 04/01/08

WHAT HAPPENED WITH THE INCOME TAX REBATES OF 2001?

- Johnson, Parker and Souleles (AER, 2006)
- The Economic Growth and Tax Relief Reconciliation Act of 2001
 - rebates either \$300 or \$600
 - \$38 billion or 1.5% of GDP or 2.2% of PCE
- Household spent 20-40% of of the rebate on nondurable goods during the 3 month period they received the check. And spent roughly 2/3 of the check by end of the next 3 month period.
- Larger response by low income/low wealth households.
- Raised nondurable PCE by 2.9 percent in 2001:Q3 and 2.1 percent in 2001:Q4
- They argue “the rebates provided a substantial stimulus to the national economy in 2001, helping to end the recession”

Source: Hall's course in Applied Business Cycle.



Property Rights as Institutions

- What are property rights?
It is a bundle of rights:
 - Control the use of the property
 - The right to any benefit of the property, like rents
 - The right to transfer, sell or dispose
 - The right to exclude others from the property
- Why are clearly defined property rights important?
 - Incentives to invest:
 - e.g. farmer owning vs. renting land
 - Incentives to innovate:
 - e.g. drug companies with intellectual property rights protection
 - Facilitate market transactions:
 - e.g., rights protected in business contracts
 - Enlarge market size:
 - e.g., rights protected in international trade
 - It leads to for **efficient resources allocation**, which is the base for an efficient functioning market system.



Starbucks: not so clearly defined property rights

Starbucks said it would appeal against a ruling ordering it to repay \$105m in tips, including interest, to its baristas in California. An employee had complained about the company's policy of sharing the tip jar with shift managers, which, a judge decided, was contrary to state law. The coffee chain maintains that supervisors “deserve their fair share” of the gratuities; the baristas claim their tips are subsidizing managers' wages.



Property rights as Institutions

- **What is wrong with commons or public property?**

- *Tragedy of commons*

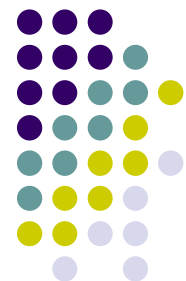
Aristotle, “What is common to many is taken *least care* of, for all men have greater regard for what is their own than for what they possess in common with others.”

Examples:

>Computers at public cluster/kiosks;

>Do you find shared dormitory rooms are often dirtier than single-occupied room?

> In former Soviet Union and China, people were told that all the assets belong to the people and the state just represent people to own and manage them.



How do you explain the following using the theory of property rights?

- Buyers' Revenge: Trash the House After Foreclosure

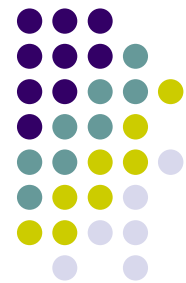


Story:

<http://online.wsj.com/article/SB120665586676569881.html>

Video link:

<http://link.brightcove.com/services/link/bcpid452319854/bctid1475736003>



Property rights as Institutions

- However, property rights cannot always be clearly defined.
 - Examples:
 - A running-through river: who gets to use the river and with what responsibilities?
 - Your roommate feels high and turns on rock music so loud in the night that you can't bear.
 - Institutional constraints: the example of Soft Budget Constraints (or SBCs) in socialist economies.
- Sometimes, even property rights can be clearly defined ex. ante, but it can be ambiguous ex. post.
 - Examples:
 - Business contracts: a typical business contract can easily run over hundreds of pages even using small prints, but disputes still often happen.
 - Hart (2007): reference points, fairness and efforts. Examples: babysitters, wedding band, or works that cannot be easily monitored and evaluated.



Do SBCs only exist in socialist/communist countries?

Ten Days That Changed Capitalism

Wall Street Journal, March 27, 2008

Officials Improvised To Rescue Markets; Will It Be Enough?

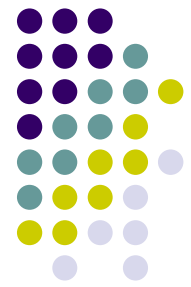
The past 10 days will be remembered as the time the U.S. government discarded a half-century of rules to save American financial capitalism from collapse.

On the Richter scale of government activism, the government's recent actions don't (yet) register at FDR levels. They are shrouded in technicalities and buried in a pile of new acronyms.

But something big just happened. It happened without an explicit vote by Congress. And, though the Treasury hasn't cut any checks for housing or Wall Street rescues, billions of dollars of taxpayer money were put at risk. A Republican administration, not eager to be viewed as the second coming of the Hoover administration, showed it no longer believes the market can sort out the mess.

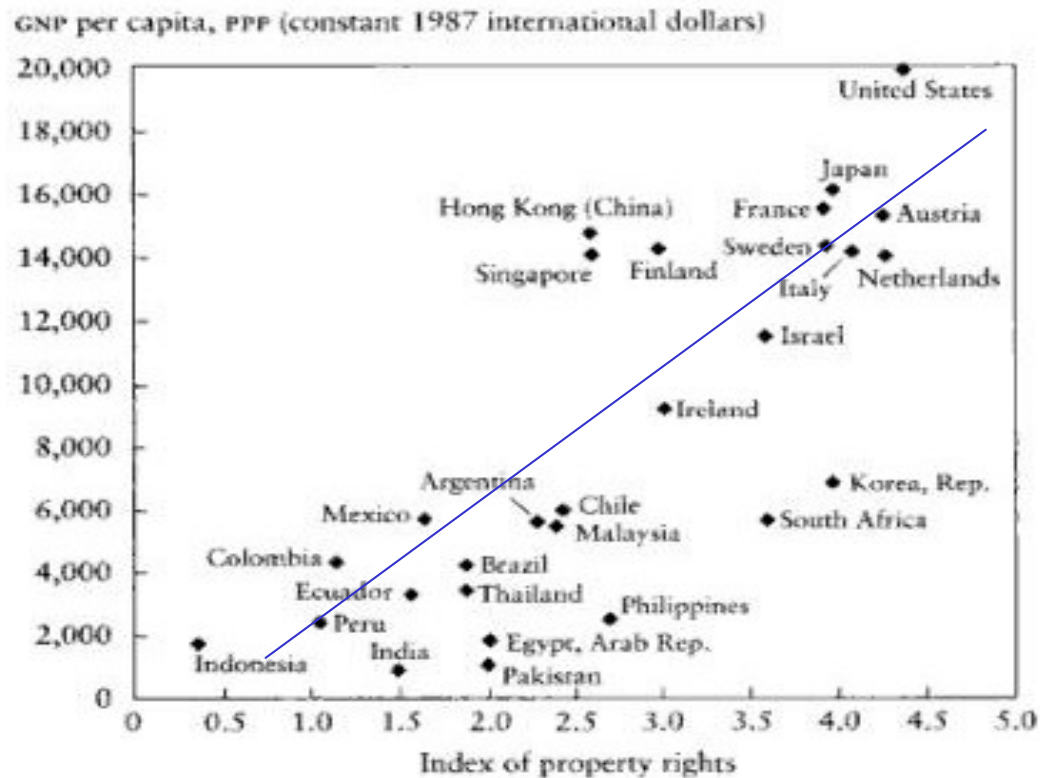


Henry M. Paulson



Institutions and Economic Performance: the importance of property rights

Figure 3. Property Rights Index and Per Capita Income, Selected Countries, 1990

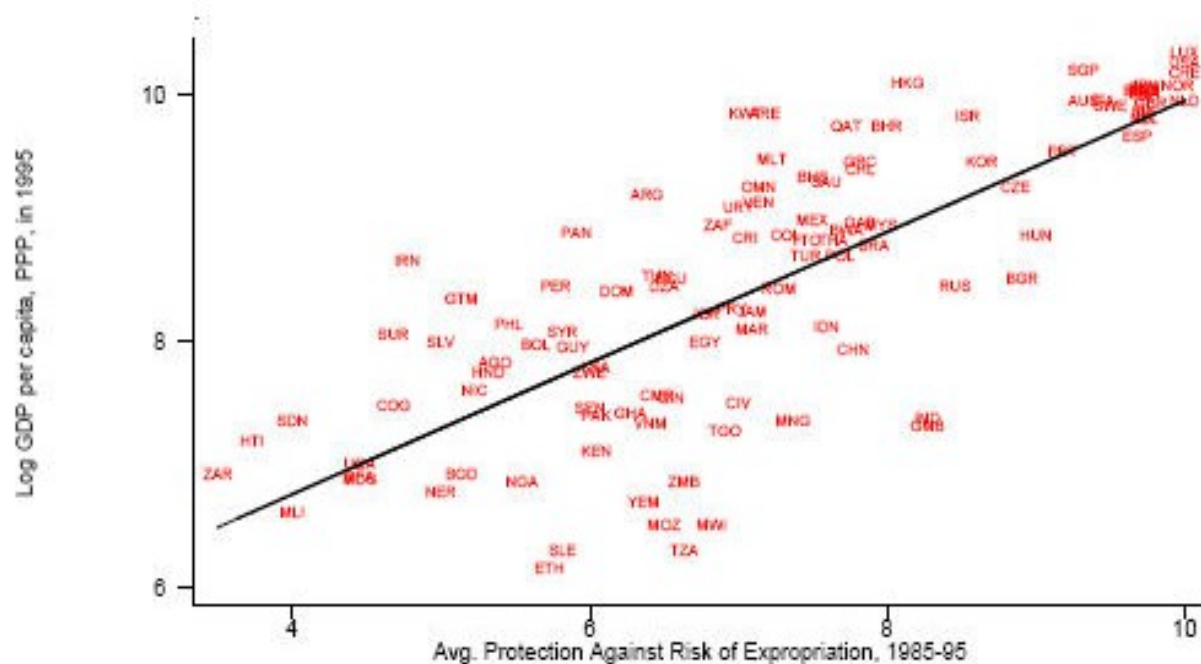


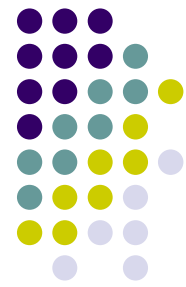
Sources: Ginarte and Park (1997); World Bank (1999).



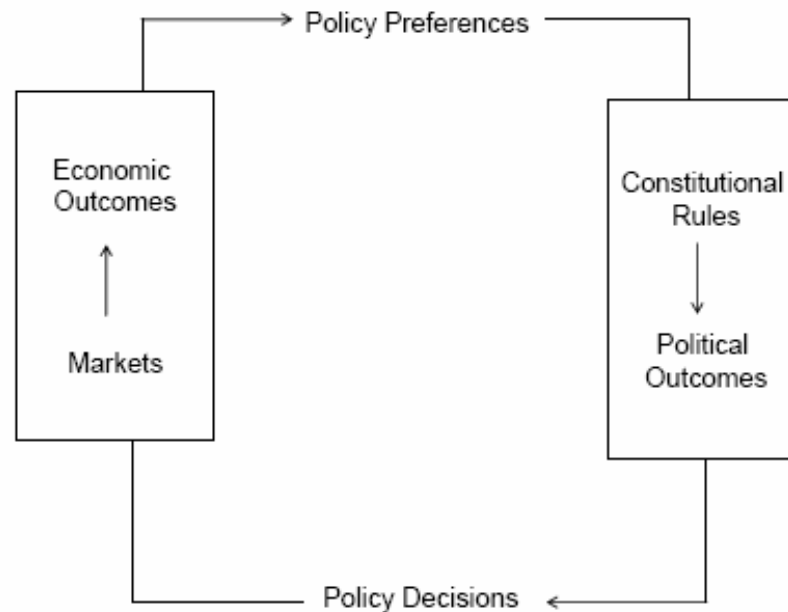
Institutions and Economic Performance: the importance of property rights

Average Protection Against Risk of Expropriation 1985-95
and log GDP per capita 1995

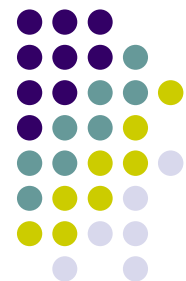




Dynamics of Institutional Change



- Institutions are not typically chosen for the good of society, but imposed by groups with political power for their economic consequences.
 - Understanding institutions necessitates understanding the dynamics of political power.
 - Institutional reform possible, but many potential pitfalls;



Hierarchy of Institutions and Their Evolution

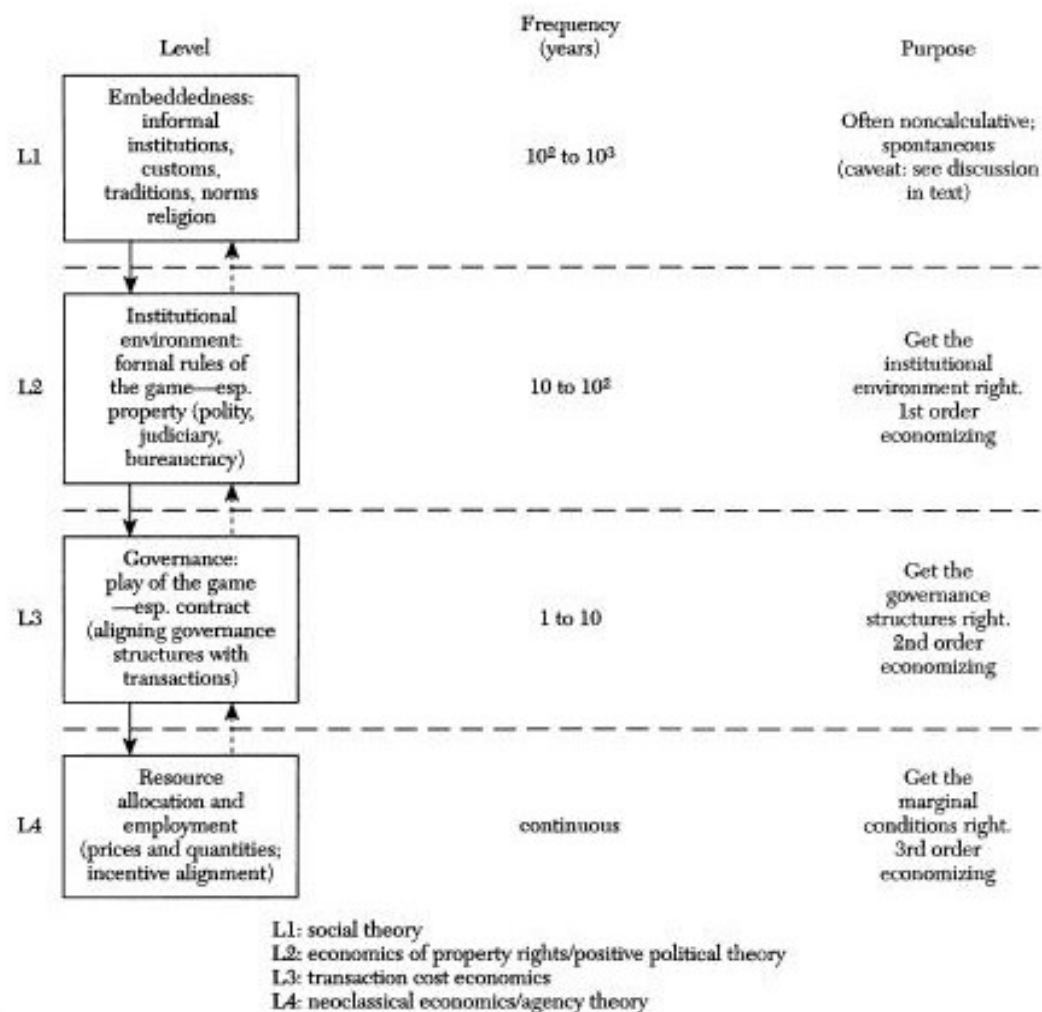
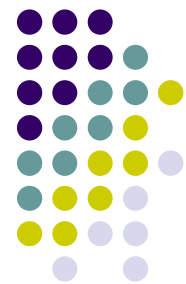


Figure 1. Economics of Institutions



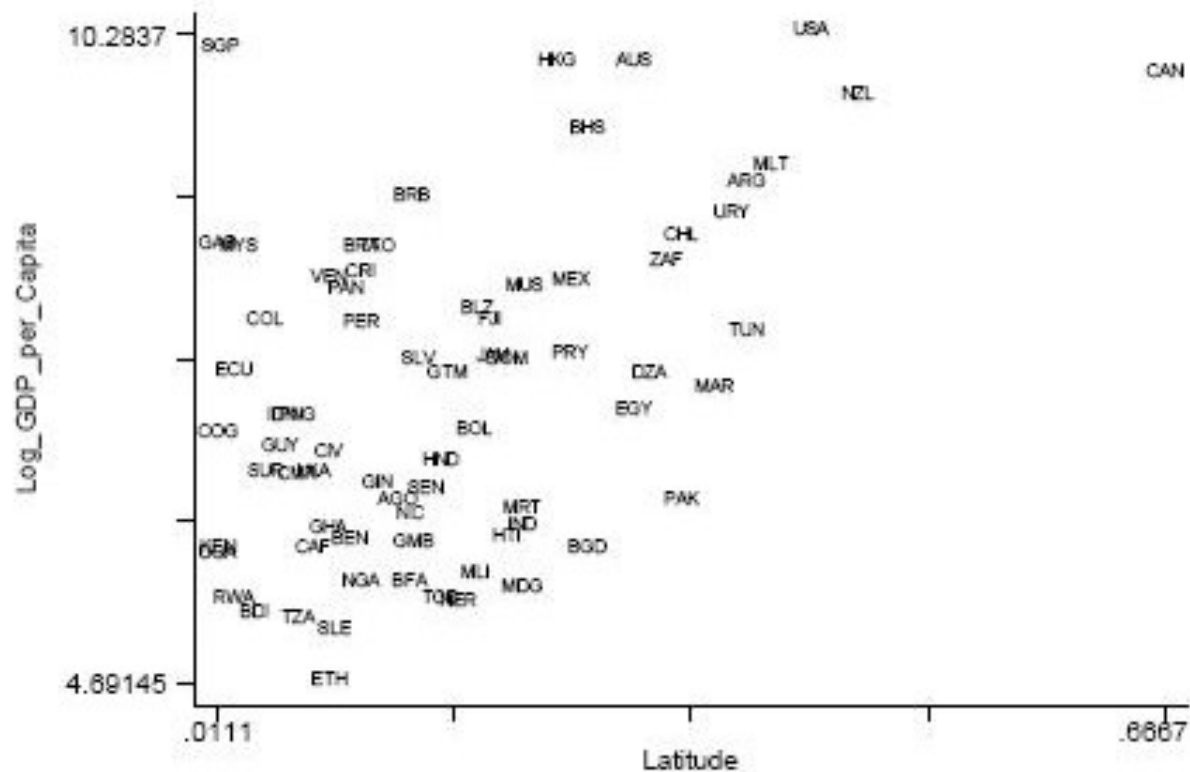
Geography and Institutions

- Jeff Sachs on *geography and economic development*
 - “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.”
 - “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”



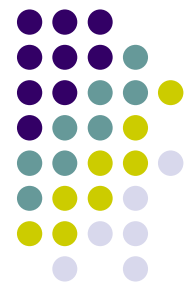
Geography and Economic Performance

Figure 2: Logarithm of GDP per Capita in 1995 vs. Latitude



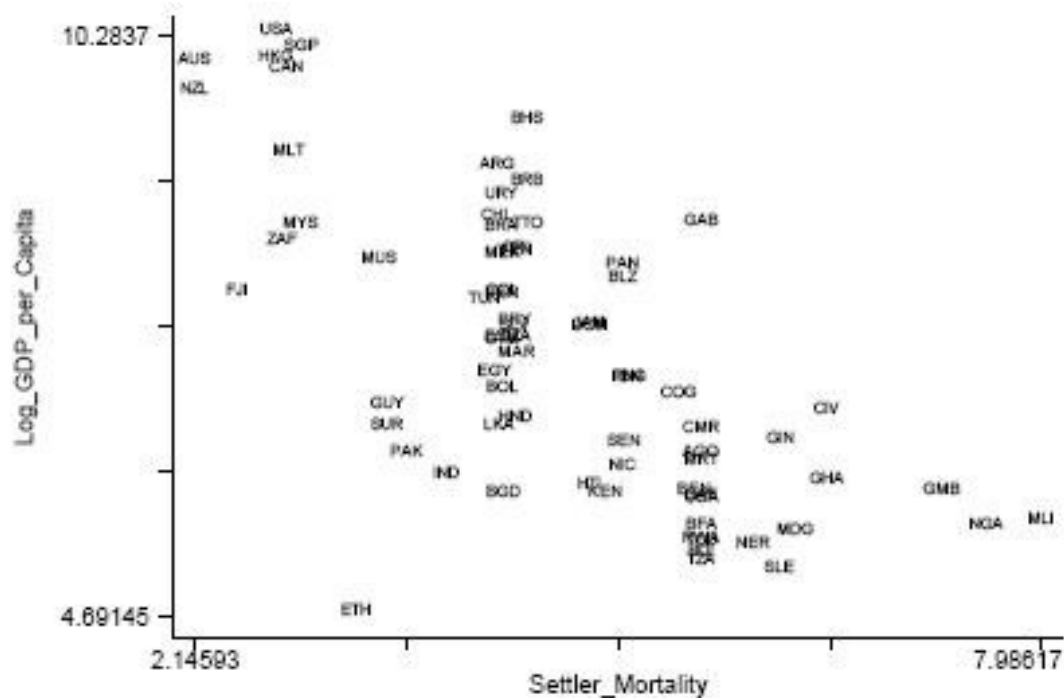
What would be the story to support geography matters for development?

What would be the story to support that it's not really geography but something else correlated with geography matters?



Geography and Economic Performance

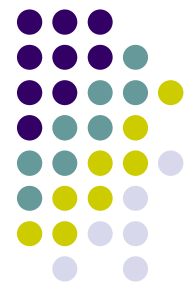
Figure 1: Logarithm of GDP per Capita in 1995 vs. Settler Mortality



Higher settler mortality is negatively correlated with GDP per capita centuries later.

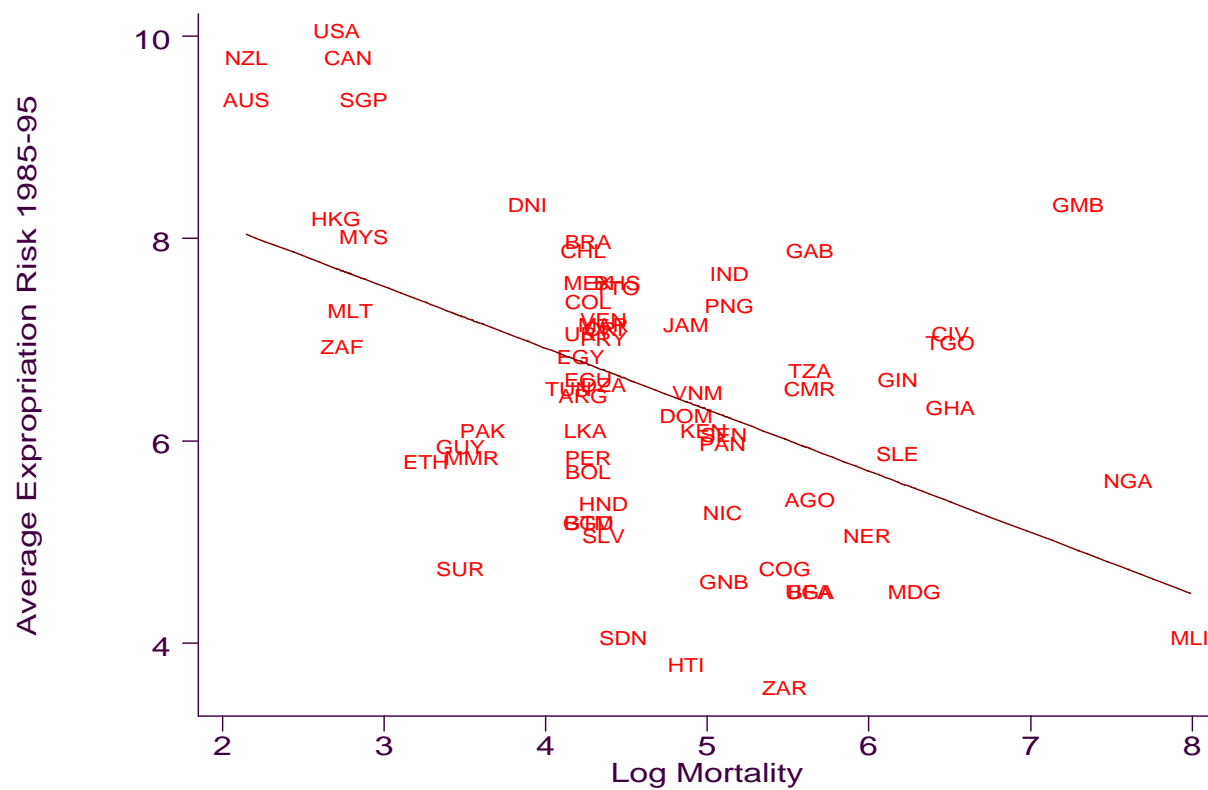
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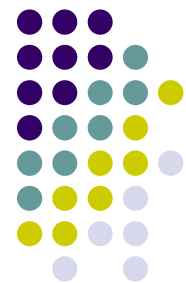
What could be the story that favorable geography brings about good institutions?



Geography or Institutions?

First, the relationship between mortality and institutions (as measured by property rights protection).

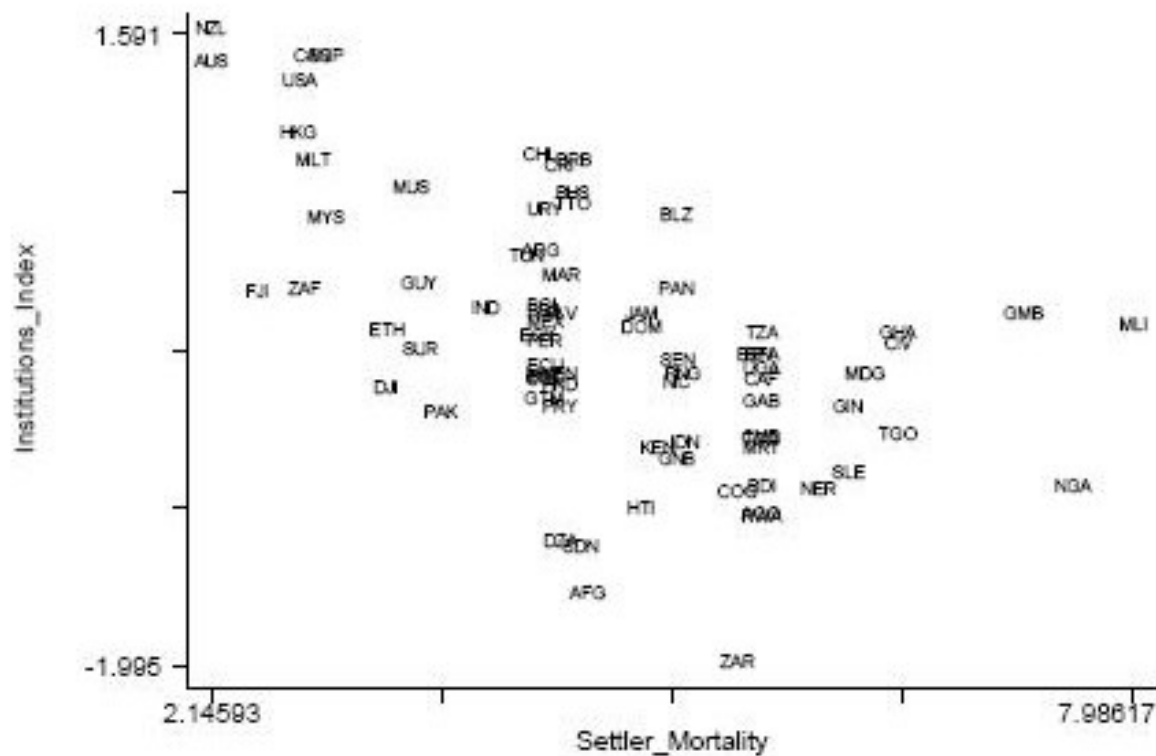


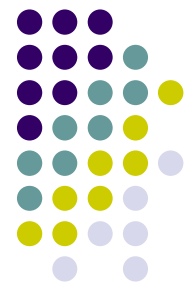


Geography or Institutions?

Second, the relationship between mortality and institutions (as measured by general index).

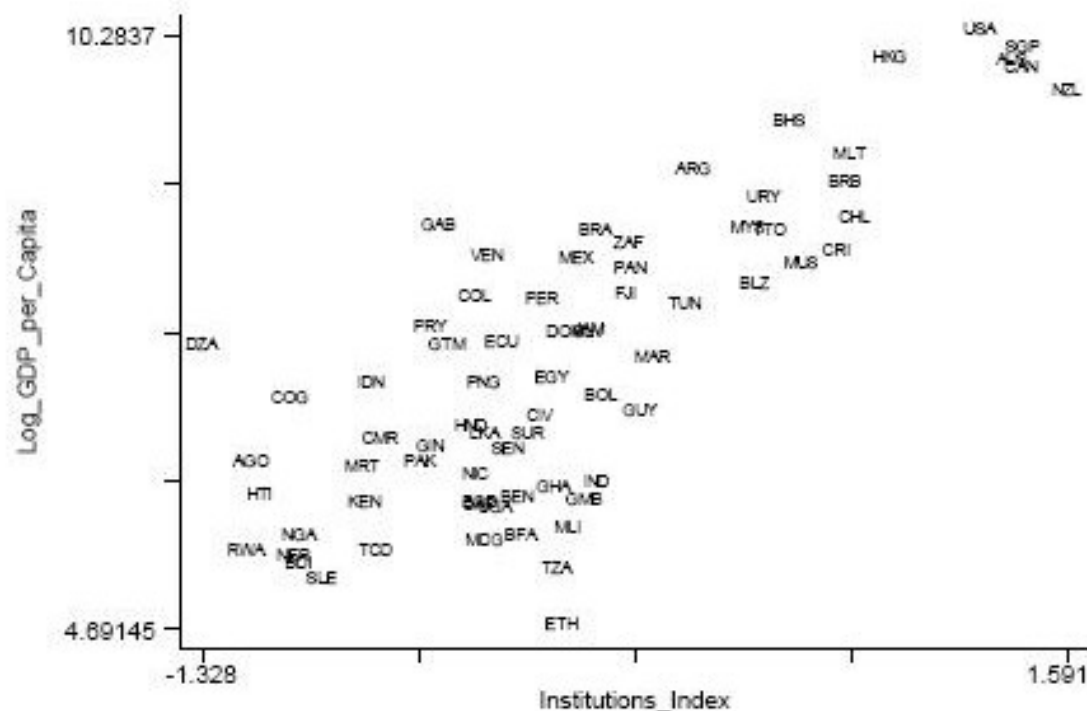
Figure 4: Institutions Index vs. Settler Mortality





Geography or Institutions?

Figure 3: Logarithm of GDP per Capita in 1995 vs. Institutions Index



Finally, the positive relationship between good institutions and economic development is well understood.



Geography and Institutions

- Easterly argues:
 - it's not that geography matters but institutions induced by geography matter.
 - **Geography itself does not seem to count:**
 - A country with bad geography and good institutions will do fine
 - A country with good geography and bad institutions will not.
 - It's only in so far as good geography breeds good institutions that good geography promotes development.



Geography and Institutions

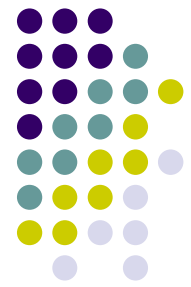
- Why on earth should good geography favor good institutions? A Recap
 - In North America, Australia and New Zealand, Europeans settled in large numbers and created institutions to protect private property and curb the power of the state.
 - In most Africa and Latin America, Europeans never wished to settle (because of unfavorable living conditions) and instead concentrated, to varying degrees, on extracting metals, cash crops and other resources: less democracy, less regard for property rights.
 - What would the role of technology in above dynamics?



Culture or Institutions?

- The Chinese experience

- China, Hong Kong, Singapore and Taiwan share many cultural and ethnic similarities.
- In the mid of 20th century, while China adopted state planning and communist political institutions, Hong Kong, Singapore (much earlier) and Taiwan followed a capitalist path with relatively well-enforced property rights.
- While Hong Kong, Singapore and Taiwan prospered, China stagnated.
- After the Mao's death and reforms since 1978, especially the introduction of some basic property rights, changes in economic incentives in China, and now China has been on a very rapid growth path.



Recent Debate on Institutions

Hanoi Street Crossing



<http://www.youtube.com/watch?v=eC4BN9kInXg>

The most dangerous traffic light in the world (Russia)

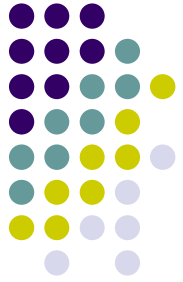


<http://www.youtube.com/watch?v=H2JFL1Sk21Y>



Recent Debate on Institutions

- Dani Rodrik argues (2008 AEA):
 - We can get a lot of economic growth in a very poor institutional environment: formal institutions of property rights and contract enforcement are not always a binding constraint, just as lack of traffic lights does not prevent traffic from flowing smoothly in Vietnam.
 - Question: Is Rodrik missing the target? Should we care about under what conditions country can grow or conditions country can achieve sustained growth? The first part is easy; the second part is quite difficult.
 - Institutional reforms that do not take *second-best* interactions (such as interactions with informal institutions, labor-market distortions, or learning externalities) can do more harm than good, just as poorly enforced traffic lights in St. Petersburg create more accidents than their absence would result in
 - Debate on “shock therapy” and “gradualism”



Legal Origins: Civil Law vs. Common Law

- Civil –the Romano-Germanic legal tradition - the oldest and most widely used system around the world. It originated in Roman law, uses statutes and comprehensive codes as a primary means of ordering legal material, and relies heavily on legal scholars to ascertain and formulate its rules. Within the tradition civil law there are three families of law.
 - French commercial law - written under Napoleon (1807); brought by his armies to Belgium, the Netherlands, part of Poland, Italy, and parts of Germany. In the colonial era, France extended its legal influence to the Near East and Northern and sub-Saharan Africa, Indochina, Oceania, and (the) French Caribbean islands. French legal influence has also been significant in Spain and Portugal – when their Latin American empires dissolved in the 19th century, the new nations drew on French civil law. (21/49 countries in the table followed)
 - The German Commercial Code. Written after Bismark’s unification of Germany (1897). Important influence on the legal doctrines of nations of E. Europe, Italy, Japan, Korea, Taiwan, and China. (6/49 countries)
 - The Scandinavian family is viewed as part of the civil-law tradition, although it is less derivative of Roman law than the French and German families. The Nordic countries belong to this family. (4/49)




Legal Origins: Common Law vs. Civil Law

- Includes the law of England and those laws modeled on English law. The common law is formed by judges who have to resolve specific disputes. Precedents from judicial decisions, as opposed to contributions by scholars, shape common law.
 - Common law has spread to the British colonies, including the U.S., Canada, Australia, India, and many other countries. (18/49)
 - Some countries have developed hybrid systems, e.g. the post-WW II U.S. occupation of Japan Americanized some Japanese laws, Quebec has a system based on French law.

TABLE 5
RULE OF LAW

COUNTRY	ENFORCEMENT VARIABLES					ACCOUNTING: Rating on Accounting Standards	GNP PER CAPITA (U.S. \$)
	Efficiency of Judicial System	Rule of Law	Corruption	Risk of Expropriation	Risk of Contract Repudiation		
	A. Country Scores						
Australia	10.00	10.00	8.52	9.27	8.71	75	17,500
Canada	9.25	10.00	10.00	9.67	8.96	74	19,970
Hong Kong	10.00	8.22	8.52	8.29	8.82	69	18,060
India	8.00	4.17	4.58	7.75	6.11	57	300
Ireland	8.75	7.80	8.52	9.67	8.96	na	13,000
Israel	10.00	4.82	8.33	8.25	7.54	64	13,920
Kenya	5.75	5.42	4.82	5.98	5.66	na	270
Malaysia	9.00	6.78	7.38	7.95	7.43	76	3,140
New Zealand	10.00	10.00	10.00	9.69	9.29	70	12,600
Nigeria	7.25	2.73	3.03	5.33	4.36	59	300
Pakistan	5.00	3.03	2.98	5.62	4.87	na	430
Singapore	10.00	8.57	8.22	9.30	8.86	78	19,850
South Africa	6.00	4.42	8.92	6.88	7.27	70	2,980
Sri Lanka	7.00	1.90	5.00	6.05	5.25	na	600
Thailand	3.25	6.25	5.18	7.42	7.57	64	2,110
United Kingdom	10.00	8.57	9.10	9.71	9.63	78	18,060
United States	10.00	10.00	8.63	9.98	9.00	71	24,740
Zimbabwe	7.50	3.68	5.42	5.61	5.04	na	520
English-origin average	8.15	6.46	7.06	7.91	7.41	69.62	9,353
Argentina	6.00	5.35	6.02	5.91	4.91	45	7,220
Belgium	9.50	10.00	8.82	9.63	9.48	61	21,650
Brazil	5.75	6.32	6.32	7.62	6.30	54	2,930
Chile	7.25	7.02	5.30	7.50	6.80	52	3,170
Colombia	7.25	2.08	5.00	6.95	7.02	50	1,400
Ecuador	6.25	6.67	5.18	6.57	5.18	na	1,200
Egypt	6.50	4.17	3.87	6.30	6.05	24	660
France	8.00	8.98	9.05	9.65	9.19	69	22,490
Greece	7.00	6.18	7.27	7.12	6.62	55	7,390

							
Indonesia	2.50	3.98	2.15	7.16	6.09	na	740
Italy	6.75	8.33	6.13	9.35	9.17	62	19,840
Jordan	8.66	4.35	5.48	6.07	4.86	na	1,190
Mexico	6.00	5.35	4.77	7.29	6.55	60	3,610
Netherlands	10.00	10.00	10.00	9.98	9.35	64	20,950
Peru	6.75	2.50	4.70	5.54	4.68	38	1,490
Philippines	4.75	2.73	2.92	5.22	4.80	65	850
Portugal	5.50	8.68	7.38	8.90	8.57	36	9,130
Spain	6.25	7.80	7.38	9.52	8.40	64	13,590
Turkey	4.00	5.18	5.18	7.00	5.95	51	2,970
Uruguay	6.50	5.00	5.00	6.58	7.29	31	3,830
Venezuela	6.50	6.37	4.70	6.89	6.30	40	2,840
French-origin average	6.56	6.05	5.84	7.46	6.84	51.17	7,102
Austria	9.50	10.00	8.57	9.69	9.60	54	23,510
Germany	9.00	9.23	8.93	9.90	9.77	62	23,560
Japan	10.00	8.98	8.52	9.67	9.69	65	31,490
South Korea	6.00	5.35	5.30	8.31	8.59	62	7,660
Switzerland	10.00	10.00	10.00	9.98	9.98	68	35,760
Taiwan	6.75	8.52	6.85	9.12	9.16	65	10,425
German-origin average	8.54	8.68	8.03	9.45	9.47	62.67	22,067
Denmark	10.00	10.00	10.00	9.67	9.31	62	26,730
Finland	10.00	10.00	10.00	9.67	9.15	77	19,300
Norway	10.00	10.00	10.00	9.88	9.71	74	25,970
Sweden	10.00	10.00	10.00	9.40	9.58	83	24,740
Scandinavian-origin average	10.00	10.00	10.00	9.66	9.44	74.00	24,185
Sample average	7.67	6.85	6.90	8.05	7.58	60.93	11,156

B. Tests of Means between Origins (*t*-Statistics)

Common vs. civil law	1.27	-.77	.39	-.46	-.51	3.12*	-.94
English vs. French origin	2.65*	.51	1.79***	.90	1.06	4.66*	.85
English vs. German origin	-.41	-1.82***	-.93	-2.19**	-2.79*	2.22**	-2.86*
English vs. Scandinavian origin	-3.78*	-15.57*	-5.38***	-2.06**	-2.26**	-1.05	-3.24*
French vs. German origin	-2.53*	-2.55*	-2.49*	-3.20*	-3.90*	-2.10**	-3.79*
French vs. Scandinavian origin	-9.34*	-20.80*	-9.77*	-2.94*	-3.17*	-3.32*	-4.28*
German vs. Scandinavian origin	-2.06***	-11.29*	-2.88*	-.63	.10	-2.66**	-.36

* Significant at the 1 percent level.

** Significant at the 5 percent level.

*** Significant at the 10 percent level.