The Role of Institutions in Development

How do countries organize *economic activity?*

Institutions are the *constraints* (rules) placed by law and *social norms* on human behavior.

What are the *different types* of institutions?

In a *market economy*, agents conduct transactions at "arm's length."

In a command economy, cooperation is coordinated by a "planner."

All economies have elements of both (*mixed economies*), but different systems tend to emphasize one or the other.

Market forces are the *pillar of the capitalist system*.

But:

1)the market cannot function properly or no market exists

2)The market exists but implies inefficient resource allocation

3) the market produces undesirable results as measured by social objectives other than the allocation of resources

Often aims such as more equal income distribution, and "merit goods" such as health, are treated as separate rationales for policy, outside of economic efficiency

Interactions Between Institutions

- Formal institutions (laws) *evolve with* informal institutions (culture and social norms - e.g., capital punishment).
- Difficult to establish formal laws which *conflict* with social norms (e.g., border versus ethnic division in Africa)
- Formal institutions can *strengthen* informal institutions and vice versa. They are *complementary*.

What Do Institutions Do?

We will consider some problems that need to be solved in any economic system:

Informational problems

- Hold-up problems
- Commitment problems
- Cooperation problems
- Coordination problems

Informational Problems

Asymmetric information:
If a creditor does not know the *creditworthiness* of a borrower,
a loan transaction may not take place.

Adverse selection may lead to dominance by disreputable players and uneconomic trades and eventual market collapses.

Information asymmetries and adverse selection are common in credit markets. Without information on borrowers, creditors cannot rely on the market and instead *ration credit via* other means (contacts, reputation, repeat customers, etc.).

Moral hazard: the possibility that one party takes *unobservable actions (often risky)* that hurt the other party’s interests. Common problem with insurance contracts. (e.g no private insurance against the riskof unemployment)

George Akerlof's *Market for Lemons* (used cars):

50% Good Cars -- Seller cost: $10K, Buyer Value: $12K

50% Bad Cars -- Seller cost: $ 5K, Buyer Value: $ 4K

A *risk neutral* individual considers *expected payoff:*

$$(.5 \times \$12K) + (.5 \times \$4K) = \$8K$$

A *risk-averse* individual might not even buy a car at $4K.

Without information on car's condition, no one will be willing to pay $12K.

A seller of the bad car can make a profit at $8K, but not the seller of a good car. Only bad cars are offered, and eventually the *market disappears (for both kinds of car).*

Institutional Solutions to Informational Problems

Disclosure rules are obligations to give relevant information about a transaction (common for houses, etc.).

Regulation of access or entry rules to govern entry into a profession (e.g. diplomas, certificates, licenses).

Warranties and *return policies* guarantee quality of a product.

Signaling provides credible information (brand names, franchising).

Chain stores are *informational intermediaries* which gather information about the products they sell.

Rating agencies also serve as informational intermediaries (Cars.com, eBay feedback). Watch *incentives* (Moody's, S&P)

These solutions do not need a central authority (State) but usually work well *only if there are effective formal institutions* (legal system) to enforce contracts.

Informal institutions help solve informational problems: *repeated interaction, reputation, relational contracting,* etc.

A hold-problem is a particular kind of commitment problem. It occurs when a business partnership requires an *initial investment for one party*. When the investment is *sunk*, the second party moves to renegotiate the original bargain.

Sunk costs have been incurred and cannot be recovered.

Without remediation, the hold-up problem causes underinvestment.

The hold-up problem is more acute the more *relationship-specific* the investment is. *Asset specificity,* for example, means an investment only has value for the specific transaction.

The primary formal solution is *binding and legally enforceable contracts*. Sometimes contracts have to be very detailed, however, and legal systems must be sophisticated.

Vertical firm integration (ownership along the supply chain) is a common informal solution to the hold-up problem.

The Cooperation Problem

Occurs when individual *self-interested decisions* results in *suboptimal outcomes* across all parties

The prisoner's dilemma illustrates how the total payoff from individual decisions depends on the decisions of others.

A *Nash equilibrium (N.E.)* occurs if one agent will not deviate from his strategy regardless of the action of the other party.

In this case from an individual's point of view, it is always optimal to confess: the *dominant strategy.*

Note that the outcome is *suboptimal* from the case of neither confessing: both would be better off than the N.E.

Cooperation would create the *"socially" optimal* outcome, but there is an inherent commitment problem to be addressed.

The *inefficiency of pure self-interest maximization: P*ursuing self interest is not always beneficial to society (Smith's invisible hand principle)

	B stays silent.	B confesses.
A stays silent.	Both serve 6 months.	Prisoner A serves 10 years. Prisoner B goes free.
A confesses.	Prisoner A goes free. Prisoner B serves 10 years.	Both serve 2 years.

Prisoners A and B decide individually whether to confess to a crime. It would be in their joint interest for both to stay silent, but if they follow their self-interest, they will both choose to confess ... and end up staying in jail longer.

A *collective-action problem arises* when people fail to undertake collective actions, even if it is in their joint interest to do so.

An individual or subgroup gets a *free ride* when it benefits from the actions taken by others without incurring any of the costs.

Solving, or not solving, collective action problems is *fundamental to human societies.*

Today we face this problem with climate change.

An other example is the tragedy of the commons (fertile crescent now desertified).

Nobel Elinor Ostrom shows local communities organize to prevent overexploitation of the soil.

In general, various institutions have *evolved* to establish cooperation across individuals: nations, political parties, labor unions, professional organizations, international bodies.

As opposed to *dictatorships, democracy* encourages the associations to overcome the collective action problem.

Spontaneous strikes or riots are *informal solutions* to collective action problems.

Recently, the *ease of communication* has reduced costs of spontaneous forms of collaboration.

The Coordination Problem

Agents coordinate on a specific situation, and the optimal action of an individual *depends* on what others do.

Raises possibility of *multiple equilibria more or less welfare improving.*

For instance: laws are easier to enforce if large majority respects them.

In many developing countries the *prevalence of sub-optimal equilibriums* (e.g., lack of law abidance, tax evasion, corruption) have evolved to become social norms.

These can be difficult to understand and reverse. Reform usually requires collective effort: "*Big Push*" strategies.

Formal laws and *standards* help in reaching one coordination equilibrium over another (e.g. traffic standards).

Conventions, informally enforced, also help solve the coordination problem (customs, social and religious norms).

	B:Stag	B:Hare
A:Stag	4,4	0,3
A:Hare	0,3	3,3

A Pure Coordination Game: The Stag Hunt Game.

Nobel Thomas Schelling suggested “focal Point” solutions.

The Functionalist Fallacy

Many institutions are inherited from the past and are not efficient in addressing contemporary problems.

Reforming institutions requires overcoming collective-action problems, which often is difficult in developing countries.

Given vested interests and uneven distribution of influence, institutions can in fact be used to prevent or punish collective movements and mobilization.

Overall, large groups in which each individual has a minimal stake in solving a problem by public action suffer more from collective-action problems than small groups with large stakes in public action, even public action in solving the problem of a large group would improve social welfare more than solving the problem of a small group.

Political institutions

Political institutions determine the *allocation of political power* among groups of citizens.

They have four key roles in development process:

Provide institutional environment for markets to function e.g. law and order; property rights;

Correct market imperfections

Provide goods not adequately supplied by markets: public goods and merit goods such as education, health, infrastructure

Ensure equitable distribution of income and protect vulnerable

Ensure macroeconomic stability

Many developing countries not performing their core functions properly

There are two main political regime types:

Autocracy: all power resides in a single person or narrow group

Democracy:

in most democracies, citizens have *fundamental rights* of freedom of expression, freedom of association, and freedom of movement.

In particula: Elections to chose representative government snd parliament.

(multiparty system, universal adult suffrage,ballot secrecy and security, access to the electorate through media system).

Several indicators exist to gauge strength and quality of institutions

Aggregate governance index (Kaufman and Kray)

http://info.worldbank.org/governance/wgi/

Measures of property rights and expropriation risk (International Country Risk Guide)

https://www.prsgroup.com/

Index of democracy, political rights and civil liberties (Gastil, 1983), Freedom House

https://freedomhouse.org/countries/freedom-world/scores

Index of corruption (Transparency International)

https://www.transparency.org

Economic freedom index (Heritage Foundation)

https://www.heritage.org/index/

Index of social progress

https://www.socialprogress.org/

Other sources at:

https://www.isa-sociology.org/en/opportunities/world-social-indices

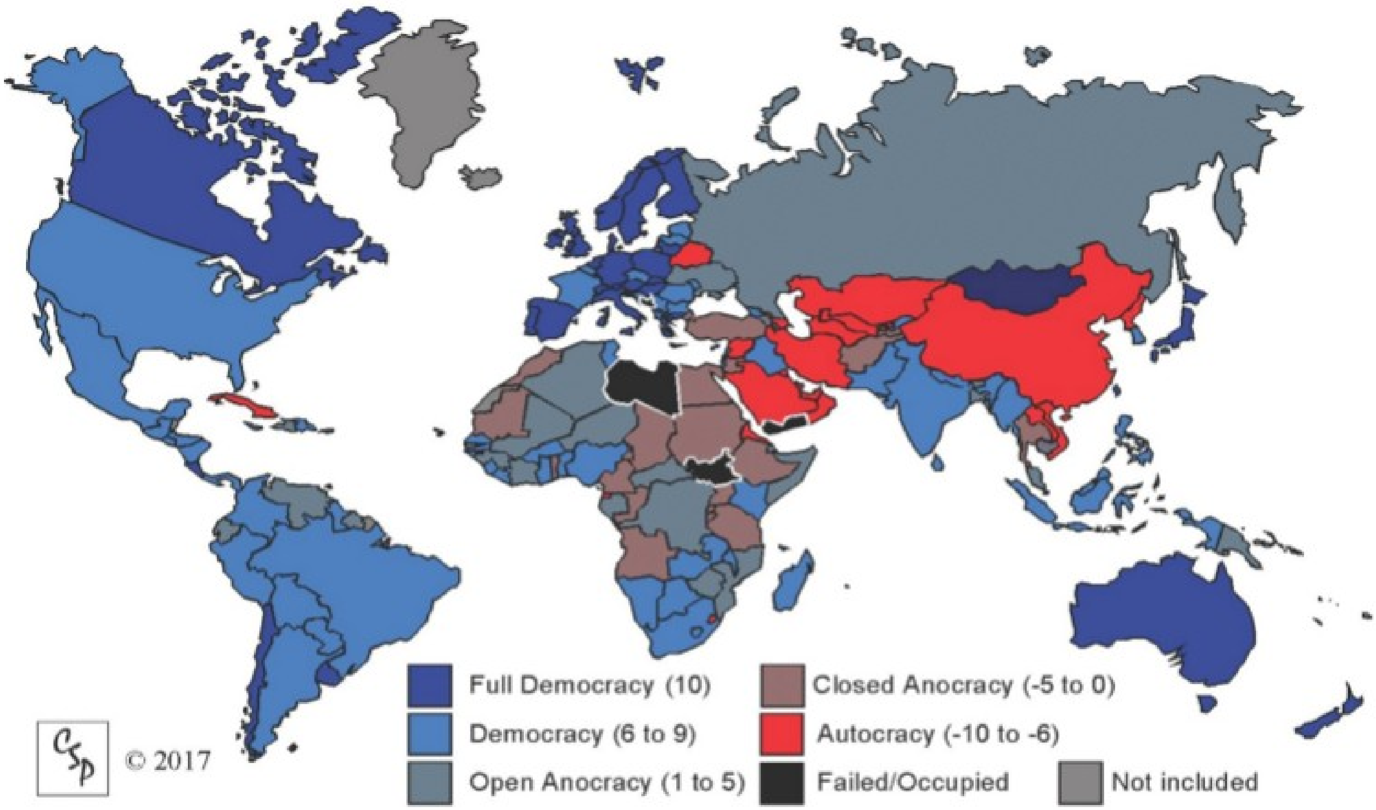


Figure 14. Distribution of Governance Regimes in the Global System. Countries are color-coded to denote their regime type along the POLITY spectrum ranging from -10 (fully institutionalized autocracy) to +10 (fully institutionalized democracy) according to the six categorical types shown. Data in from the CSP *Polity* dataset.

http://www.systemicpeace.org/vlibrary/GlobalReport2017.pdf

Consistent with standard economic theory, we assume that those in *power will act to maximize personal utility*.

The Theory of Autocracy

A tale of two bandits (Mancur Olson):

A Roving bandit cares only about current revenue and disregards long term consequences of banditry. Will steal as much as possible from each economy

A Stationary bandit has long term interest in health of economy, structures banditry to maximize revenue over time, and leaves some output to the economy.

An *unstable dictatorial regime* will behave like a roving bandit.

If a dictator expects to *retain power*, he will behave as a stationary bandit and maximize both current and future revenue.

Stationary bandit has partially *coincident interests with population*, will provide some services.

Suppose two periods of time: $y_2 = f((1-t)y_1)$, where t is tax rate, and Y_1 and Y_2 are incomes in the two periods.

The roving bandit will choose t=1, the stationary bandit has the objective function: $ty_1 + f((1-t)y_1)$.

Assuming f'(0) infinite implies t<1.

The Theory of Democracy

Self-interested candidates compete for office by appealing to the *self-interest of voters.*

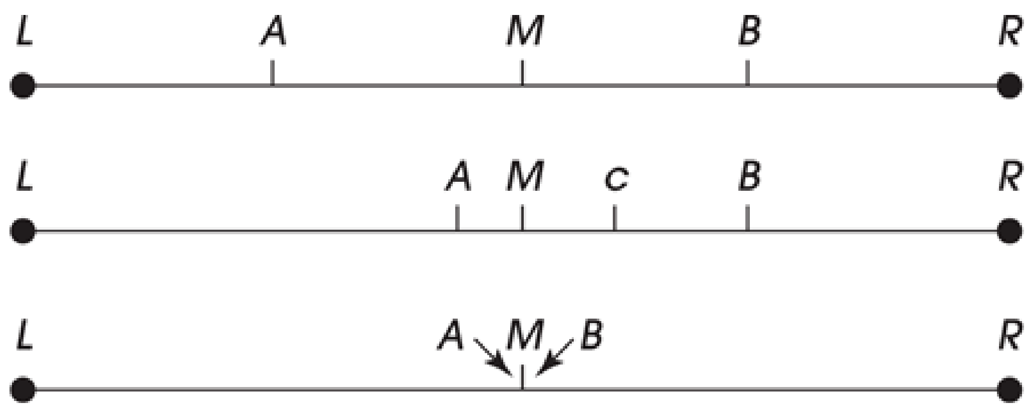
Majority rule ensures most voters' interests are considered, but competition forces candidates to propose a mix of policies appealing across voters.

For simple majority elections, the median voter determines the election. The *"median voter theorem"* predicts that candidates' policies will converge towards the center

Assumes *one-dimensional political issue* (e.g., income distribution) and two candidates. Assumes *candidates know voter preferences*.

Median voter and income redistributions: assuming income is skewed toward top earners, "*one-person one-vote"* produces bias of redistribution of income from the rich to the poor. However not true. Interestingly, Islam et al (2018), looking at 21 OECD countries over 1870-2011, provide evidence that rising inequality significantly depresses the income tax ratio.

Islam, Md. Rabiul & Madsen, Jakob B. & Doucouliagos, Hristos, 2018. "Does inequality constrain the power to tax? Evidence from the OECD," European Journal of Political Economy, Elsevier, vol. 52(C), pages 1-17



Electoral competition pushes parties *A* and *B* to propose policy platforms that are located at the median voter's preferred position.

Autocracy and Democracy Compared

In general, democracies redistribute more from rich to poor than Autocracies

Democracies provide more public services (education and health). Autocracies provide services only to maximize income.

In autocracies, wealth and power are concentrated within a small elite.

Taxes will fund military and police expenditures and consumption of the elite.

The elite may discourage economic development (e.g. entry of new firms) and erect barriers to social mobility. .

An autocracy *restricts* access to positions; there is usually *free access* to positions of power in a democracy.

Lack of accountability is common in autocracies, while *accountability is induced* in well functioning democracies by need of politicians to be reelected.

Dictators expand their territories (to gain more taxes) while democracies experience secession (if country too divided across economic, religious or ethnic lines).

In autocracies, no third party can enforce *commitment.* In democracies, *separation of powers* and institutional *checks and balances* mitigate the commitment problem.

Very Important: Constitutions require supermajorities to be changed.

Presidential and Parliamentary Democracies

In a *presidential regime,* the head of the executive branch, the president, is usually elected by voters (U.S., Latin America). A *divided government* occurs when one party controls the executive and another party controls the legislative branch.

In a *parliamentary regime,* the legislative majority is elected directly and the executive is appointed by the parliament. Therefore, the executive usually has support of legislative. (Western Europe, Africa)

Electoral Rules

Majoritarian rule (first past the post), one representative –the candidate with the most votes- is elected per legislative district.

Proportional rule allocates multiple district seats for parties in proportion to the number of votes each party receives.

District magnitude is the average number of seats in a district.

Presidential and Parliamentary Democracies

In a *presidential regime,* the head of the executive branch, the president, is usually elected by voters (U.S., Latin America). A *divided government* occurs when one party controls the executive and another party controls the legislative branch.

In a *parliamentary regime,* the legislative majority is elected directly and the executive is appointed by the parliament. Therefore, the executive usually has support of legislative. (Western Europe, Africa)

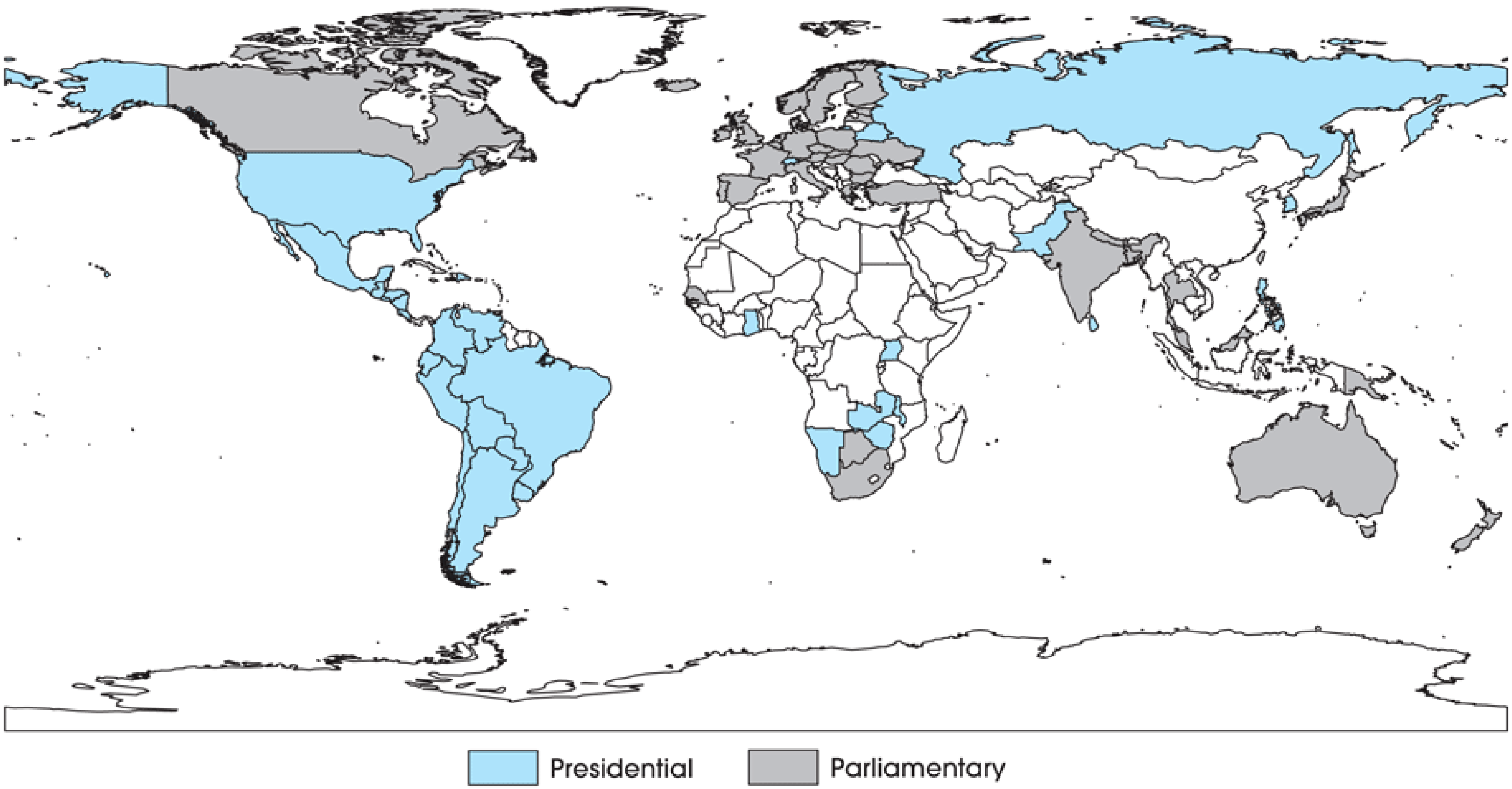
Electoral Rules

Majoritarian rule (first past the post), one representative –the candidate with the most votes- is elected per legislative district.

Proportional rule allocates multiple district seats for parties in proportion to the number of votes each party receives.

District magnitude is the average number of seats in a district.

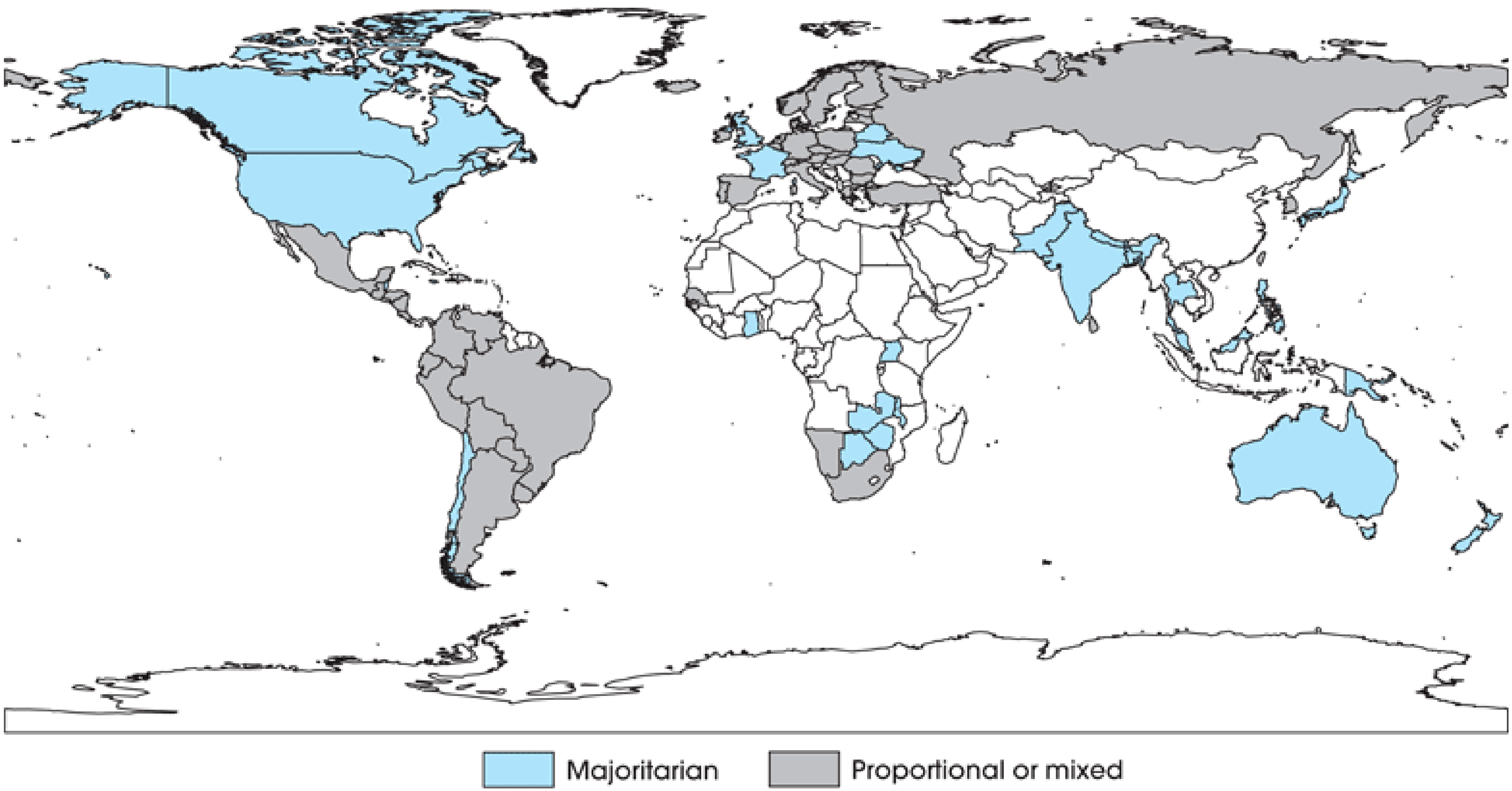
Presidential and Parliamentary Democracies.



Countries in blue have presidential democracies while countries in gray have parliamentary democracies. The data are based on Freedom House research on political and civil liberties from 1990–1998. All other countries are not democratic. Note that the set of democratic countries is not exactly the same as that shown in Figure 9.1 as the criteria for democracy are somewhat weaker in Figure 9.2 and the time span covered is not the same.

Source: Torsten Persson and Guido Tabellini, *The Economic Effect of Constitutions* (Cambridge: MIT Press, 2003).

The Distribution of Electoral Systems.



Countries in blue have majoritarian electoral rule while those in gray have proportional (or mixed—partly proportional, partly majoritarian) electoral rule. All other countries are not democratic. The criteria used to measure democracies are the same as in Figure 9.5.

Source: Persson and Tabellini, *The Economic Effect of Constitutions*, 2003.

Do institutional differences within democracies matter for economic performance?

Person and Tabellini (2003) find:

Government *expenditures tend to be higher in parliamentary* regimes compared to presidential regimes.

It also appears that parliamentary regimes and *proportional voting increases spending* for social welfare programs.

Offered explanations:

Separation of powers is stronger in a presidential democracy: makes it more difficult to implement reforms.

Social spending dynamic is different in majoritarian (satisfy the median voter district by district) vs. proportional (benefit largest proportion of voters across all districts)

Inequality, Social Conflict, and Democracy

Seymour Lipset link democracy to level eduction. Other theories link democratization to income inequality:

Elites use democracy as a credible promise for redistribution in order to prevent revolution.

Historically, democracy has been introduced as a response to revolutionary threats (e.g., Great Britain, Germany). Democracy and decolonization have a mixed history (India vs. Algeria).

Acemoglu and Robinson theory of democracy and income inequality:

Development of civil society leads to democratization with fewer reversals.

Democratization occurs in times of crisis (recession, droughts).

Democratization is less likely in societies where assets of the elite are mostly agrarian rather than industrial.

Democratization is less likely with either very low or very high levels of inequality. The presence of an established middle class is important for democratization.

Globalization positively affects democratization.

Political Institutions and Fiscal Policy Outcomes

	Presidential Regimes	Parliamentary regimes	Majoritarian elections	Proportional elections
Size of government expenditures	18.7	30.1	25.4	26.5
Social security and welfare spending	4.4	9	5	8.8
Budget deficit	2.4	3.3	2.5	3.3

Presidential democracies have smaller government expenditures (all data expressed as a % of GDP). Countries with majoritarian rule spend less on social security and welfare.

Source: Persson and Tabellini, *The Economic Effect of Constitutions*, 2003.

- Huntington in The Third Wave: Democratization in the Late 20th Century (1991) observes *three waves of democratization*. Early 20th century, Post-WWII, and End of cold war.

First wave		Second wave		Third wave	
United States	1800	Iceland	1944	Greece	1975
United Kingdom	1837	Austria	1945	Papua New Guinea	1975
Costa Rica	1841	Italy	1945	Senegal	1975
Switzerland	1848	France	1946	Portugal	1976
Belgium	1853	Israel	1948	Dominican Republic	1978
Canada	1867	Sri Lanka	1948	Spain	1978
Luxembourg	1879	Germany	1949	Ecuador	1979
Norway	1898	India	1950	Peru	1979
Australia	1901	Japan	1952	Belize	1981
New Zealand	1906	Colombia	1957	Bolivia	1982
South Africa	1910	Malaysia	1957	Honduras	1982
Denmark	1915	Venezuela	1958	Turkey	1982
Finland	1917	Jamaica	1959	Argentina	1983
Netherlands	1917	Cyprus (G)	1960	El Salvador	1984
Sweden	1917	Trinidad & Tobago	1962	Brazil	1985
Ireland	1921	Malta	1964	Guatemala	1985
		Gambia	1965	Uruguay	1985
		Singapore	1965	Philippines	1987
		Barbados	1966	Pakistan	1988
		Botswana	1966	South Korea	1988
		Mauritius	1968	Chile	1989
		Bahamas	1973	Paraguay	1989
				Poland	1989
				Romania	1989
				Zimbabwe	1989
				Bulgaria	1990
				Czech Republic	1990
				Fiji	1990
				Hungary	1990
				Namibia	1990
				Nepal	1990
				Nicaragua	1990

(Continued)

First wave		Second wave		Third wave	
				Bangladesh	1991
				Belarus	1991
				Estonia	1991
				Latvia	1991
				Ukraine	1991
				Zambia	1991
				Ghana	1992
				Russia	1992
				Taiwan	1992
				Thailand	1992
				Slovak Republic	1993
				Malawi	1994
				Mexico	1994
				Uganda	1994

The first wave of democratization occurred around World War I, the second after World War II, and the third around the end of the Cold War.

Source: Persson and Tabellini, *The Economic Effect of Constitutions*, 2003: 83–87.

Income and Democracy

Democracy is a normal good: Positive correlation between *income and democracy*

It could be argued that as urbanization, education, complexity and capabilities increase, demand for democracy also increases.

Causation: which comes first?

Does another *underlying variable affect both* institutional and economic development. (e.g., culture, religion)?

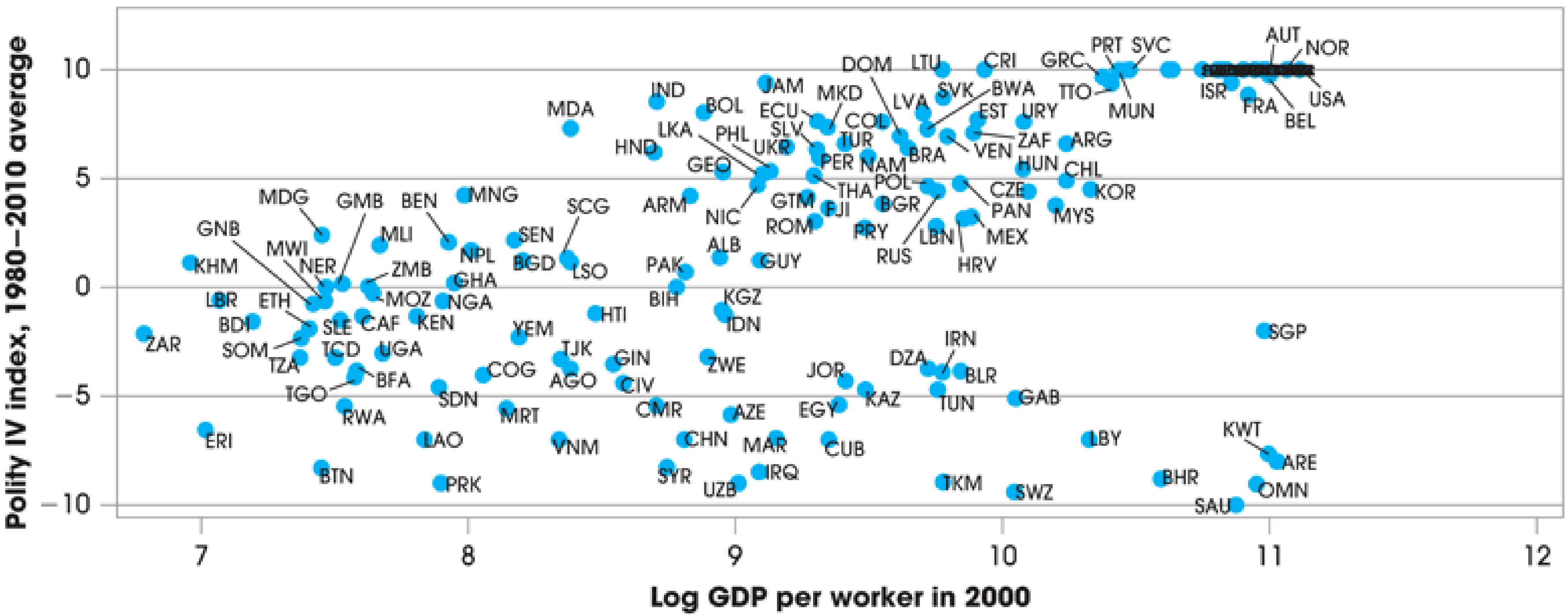
Education and Democracy

Other studies show changes in democracy not linked to changes in income, but *more strictly to education*.

A *minimum level of education* is required for democracy.

But *demonstrating cause and effect remain problematic.*

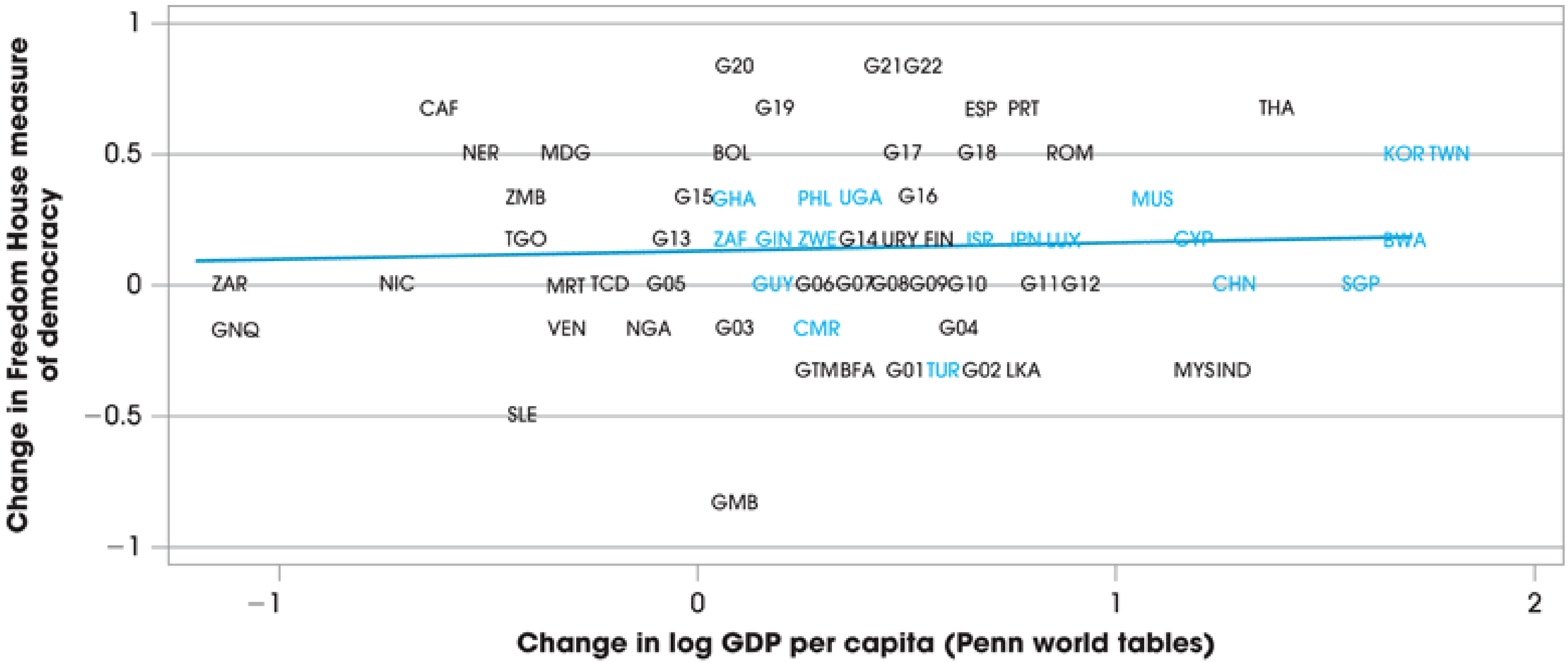
Log Income Per Capita and Democracy.



Countries with a higher income per capita tend to have a higher democracy score, but that is not the case for all countries, especially for the oil-exporting countries of the Persian Gulf.

Source: Polity IV data (http://www.systemicpeace.org/inscr/inscr.htm) and Penn World Tables (http://pwt.econ.upenn.edu/).

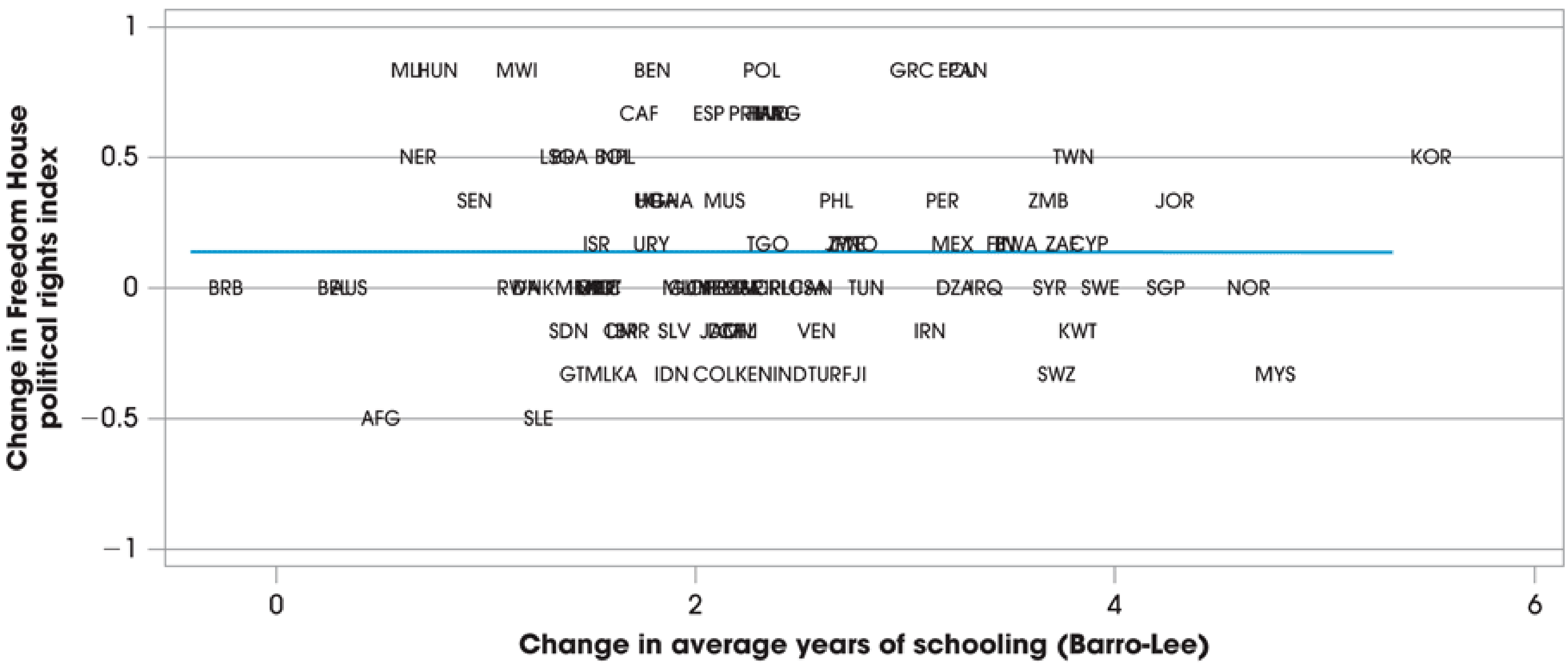
Change in Income and in Democracy, 1970-1995.



The relationship between a change in income from 1970 to 1995 and a change in the democracy score is flat.

Source: Daron Acemoglu, Simon Johnson, James A. Robinson, and Pierre Yared, "Income and Democracy," *The American Economic Review* 98, no. 3 (2008): 811. Printed with permission of American Economics Association.

Changes in Education and Changes in Democracy (1970-1995).



The relationship between change in average years of schooling from 1970 to 1995 and change over the same period of the democracy score is flat.

Source: Daron Acemoglu, Simon Johnson, James A. Robinson, and Pierre Yared, "From Education to Democracy?" *The American Economic Review* 95, no. 2, papers and proceedings of the 117th annual meeting of the American Economic Association, Philadelphia, PA, January 7–9, 2005: 44–49. Printed with permission of American Economics Association.