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## CONTAGIOUS CAPITALISM

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# Contagious Capitalism\*

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## Abstract

Leeson and Dean (2009) empirically examine the democratic domino theory and find that while democratic dominos fall as this theory contends, they fall significantly “lighter” than the theory’s importance and influence suggest. Using their approach, this paper asks whether capitalism is also contagious and, if it is, whether it spreads more strongly or weakly than democracy. We find that capitalism spreads more strongly than democracy but that its spread rate is similar. This similarity suggests that changes in underlying “meta-institutions,” such as culture, may ultimately drive changes in both political and economic institutions and explains why political and economic dominoes fall with similar “heft.”

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# 1 Introduction

Peter Leeson and Andrea Dean (2009) use spatial econometrics to examine the democratic domino theory. They find that while democratic dominoes fall as this theory contends, they fall significantly “lighter” than the theory’s importance and influence suggest. This paper uses the same approach to ask a related question: Is capitalism contagious? If so, does it spread more strongly or weakly than democracy?

As Dwight Eisenhower first articulated it in 1954, the domino theory related to countries’ alignment with the Soviet Union versus the United States. However, as Leeson and Dean point out, the domino idea is much broader than this. Since Eisenhower, policymakers have invoked a variety of dominoes, most notably as they relate to geographic neighbors’ political institutions, but also as they relate to geographic neighbors’ *economic* institutions. Communism is as much an economic system as a political one. Cold War-era policymakers not only feared the growth of alliances with the Soviet Union and the spread of a system of political repression. They also feared the spread of a system of economic repression—one in which government directed economic affairs instead of markets.

Like its political cousin, the economic domino model is straightforward. In this model, changes in one country’s economic policies and institutions spread to neighboring countries, affecting these countries’ economic policies and institutions similarly, which spreads to their neighbors, and so on. Thus, according to the economic domino theory, increases in one nation’s economic freedom lead to increases in its neighbors’ economic freedom, leading to increases in their neighbors’ economic freedom, and so on. The result is greater economic freedom in the region and world. On the other hand, decreases in economic freedom in one

country may also “infect” neighboring nations, reducing their economic freedom, which spreads to their neighbors, deteriorating global economic freedom.

Several papers consider the possibility of political dominoes.<sup>1</sup> Jervis and Snyder’s (1991) excellent collection of essays provides one notable treatment. Important research by Starr (1991), Ray (1995), Jagers and Gurr (1995), O’Loughlin et al. (1998), Gleditsch and Ward (2000), Starr and Lindborg (2003), Gleditsch and Ward (2006), and Franzese and Hays (2008) considers the specifically diffusive and/or spatial properties of political institutions. However, no one has explored economic dominoes. This paper is the first to investigate evidence for “capitalist contagion” and to compare the strength of this contagion with democratic contagion.

Using Leeson and Dean’s (2009) approach we estimate economic freedom’s spread rate and directly compare the effects of economic versus political dominoes. We find that capitalism spreads more strongly than democracy but that its spread rate is similar. This similarity suggests that changes in underlying “meta-institutions,” such as culture, may ultimately drive changes in both political and economic institutions and explains why political and economic dominoes fall with similar “heft.”

## **2 Channels of Capitalist Contagion**

Drawing on Simmons, Dobbin, and Garrett (2006), Leeson and Dean (2009) point to four potential channels through which democracy may spread between neighboring countries:

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<sup>1</sup> Besides those discussed below, see also Murphy (1966), Viksnins (1974), Slater (1987), Walt (2000), Shimko (1994), and Silverman (1975). On global democracy’s growth during the late the 20<sup>th</sup> century, see Huntington (1991).

Tiebout competition that pressures neighbors to cater to citizens' wants; demonstration effects (aka "learning") whereby countries observe what's working in neighboring nations and what isn't; economic communities or zones that may require member countries to meet certain requirements to join; and "emulation," whereby some "big player" countries lead in terms of institutions (and policies) that other countries then follow.

Each of these mechanisms is also a plausible channel for the spread of economic institutions and policies. Countries with lower taxes, better protected property rights, and less onerous regulatory regimes will tend to attract citizens from countries with less hospitable economic climates, pressuring nations near economically liberalizing neighbors to follow suit. Countries can observe the helpful or unhelpful effects of changing economic institutions and policies in their neighbors as easily as they can observe their neighbors' experiments with political institutions. Economic communities and zones, such as NAFTA and the EU, require would-be members to satisfy economic policy conditions, such as low trade barriers, low deficits, and so on, incentivizing them to embrace greater economic freedom, just as they may incentivize them to make political reforms. And local "big players," such as the United States in North America, may exert as much economic policy/institution influence over neighboring countries, for instance by encouraging stable monetary regimes if neighbors peg to their currency, as they exert influence over neighbors' political institutions.

As with democratic dominoes, these are only a few of the imaginable mechanisms through which capitalist dominoes might be set in motion. Also as with democratic dominoes, while in principle some of these channels, such as emulation, may be capable of spreading either increases *or* decreases in economic freedom geographically, others, such as

demonstration effects, may only be capable of spreading increases in economic freedom geographically.

Although these channels are conceptually distinct, separating them empirically is a different matter. Like Leeson and Dean (2009), our interest is in identifying whether contagion exists—in our case, capitalist contagion—regardless of its source. We leave the task of attempting to empirically identify which, if any, of the specific potential channels described above are at work in spreading economic freedom to others.

### 3 Data and Empirical Strategy

Our empirical strategy for investigating capitalism’s spread rate is to follow Leeson and Dean’s (2009) method for estimating democracy’s spread rate as closely as possible. They use spatial econometrics and estimate a spatial autoregressive (SAR) and spatial error (SEM) model. Unlike Ordinary Least Squares (OLS), which produces biased estimates in the face of spatial correlation, these spatial models are designed specifically to identify and measure spatial dependence. The SAR and SEM models search for this dependence in different ways. The former models how explained changes in capitalism spill over onto geographic neighbors. It takes the form:

$$\Delta \mathbf{E}_t = \alpha + \rho \mathbf{W} \Delta \mathbf{E}_t + \mathbf{E}_{t-5} \beta + \mathbf{X} \omega + \mathbf{v}_t$$

where  $\Delta \mathbf{E}_t$  is an  $N \times 1$  vector that measures countries’ changes in economic freedom between year  $t - 5$  and year  $t$ .  $\mathbf{D}_{t-5}$  is an  $N \times 1$  vector that measures countries’ lagged levels of economic freedom—i.e., the level of economic freedom that prevailed in each country in the first year of the five-year period over which countries’ changes in economic freedom are calculated.  $\mathbf{X}$  is an  $N \times K$  matrix of exogenous variables that include comprehensive year-specific fixed effects and

comprehensive country-specific fixed effects to control for as many factors as possible besides capitalist contagion that might affect countries' changes in economic freedom.  $\mathbf{W}$  is an  $N \times N$  spatial weight matrix based on first-degree contiguity (bordering geographic neighbors), and  $\rho$  is the spatial autoregressive coefficient, which measures the spread of changes in economic freedom between geographic neighbors. If capitalism spreads,  $\rho$  should be positive and significant.  $\mathbf{v}_t$  is an  $N \times 1$  vector of IID random errors.

The SEM model considers how unexplained changes in capitalism spill over onto geographic neighbors. It takes the form:

$$\Delta \mathbf{E}_t = \alpha + \mathbf{E}_{t-5} \beta + \mathbf{X} \omega + \boldsymbol{\varepsilon}_t; \lambda \mathbf{W} \Delta \boldsymbol{\varepsilon}_t + \boldsymbol{\eta}_t$$

where our parameter of interest is  $\lambda$ , the spatial autocorrelation coefficient, which measures capitalism's spread rate using the SEM model.

These models are identical to the ones Leeson and Dean (2009) use to examine democracy's spread rate with one minor exception created by differences in our datasets. While their models consider changes in democracy over four-year periods, the nature of our economic freedom data requires us to consider changes in capitalism over five-year periods.

Our data on economic freedom are from the Fraser Institute's publication *Economic Freedom in the World 1975–2005*, which measures countries' economic freedom every five years. The absence of annual data requires us to consider changes in economic freedom over five-year periods instead of four-year periods, as Leeson and Dean do for democracy using yearly data from the Polity IV Project. Fraser assigns points to countries on the basis of five equally weighted categories related to government's size and activeness in the economy. Together these categories create a composite measure of economic freedom that ranges from zero (completely unfree) to ten (completely free).

The five categories this index includes are: 1) *Size of government*, which considers the share of government's expenditures, level of taxes, and the degree of state ownership in an economy; 2) *Legal structure and security of property rights*, which measures the quality and effectiveness of a country's legal system, such as how independent its judiciary is, the impartiality of its courts, military interference with the legal system, and how well government protects private property rights; 3) *Access to sound money*, which measures the extent of inflation, and freedom to own foreign currency domestically and abroad; 4) *Freedom to trade internationally*, which measures the extent of tariff and non-tariff trade barriers, international capital market controls, exchange rate regulation or other regulation on the ability to trade internationally; and 5) *Credit, labor, and business regulation*, which covers government control of credit markets, minimum wages, price controls, time to start a new business, the number of licenses, permits and other bureaucratic approvals involved with starting and operating a business, and restrictions on hiring and firing workers.

The Polity IV Project's democracy data are available going back to the 19<sup>th</sup> century. After losing one year to insufficient sample size and another to calculate the change in our dependent variable, our panel covers the years 1985–2005. However, since Leeson and Dean cut their sample into several time periods, including one that covers only the years 1991–2001, we're able to estimate capitalism's spread rate over similar years, allowing us to compare the strength of capitalist contagion with democratic contagion at the end of the 20<sup>th</sup> and beginning of the 21<sup>st</sup> centuries. Appendix A lists the countries in our sample.

We deal with islands, which don't have geographic neighbors and thus pose a difficulty for estimating the spread of capitalism between such neighbors, in the same way that Leeson

and Dean do. First, we control for island status with an island dummy. To ensure islands aren't unduly influencing our results, we also re-estimate all of our regression excluding them.

## **4 Is Capitalism Contagious? The Evidence at a Glance**

A preliminary look at the data supports the contagious capitalism model. In Figure 1 we create four maps that display economic freedom in the world between 1985 and 2000. We color-code countries according to freedom quartiles for each year. Economically more free countries receive darker shading and economically less free countries receive lighter shading. The white countries are those for which we don't have economic freedom scores in certain years, but tend to be the least economically free nations. For example, prior to the Soviet Union's collapse the countries that now compose Eastern and Central Europe didn't have economic freedom scores but were among the least economically free places in the world.

Figure 1 displays substantial geographic correlation in economic freedom, both across countries in a given year and across countries over time. Consider economic freedom in the world in 2000. All of North America is highly economically free. The west coast of South America is relatively free, while the rest of the continent and Central America is relatively unfree. Western Europe is highly free, while Eastern and Central Europe are highly unfree. Africa is a bit more mixed. But even here economic freedom displays strong geographic dependence. The southernmost part of Africa is moderately free, while central Sub-Saharan Africa is for the most part highly unfree.

To see the geographic dependence of countries' changes in economic freedom, consider the pattern in the western part of South America over time. Figure 1 clearly shows capitalism growing together in this region's countries as one moves from the map for 1985 to the map for

2000, and creeping into neighboring border portions of central South America as well. A similar pattern exists among the southern-most nations in Africa. Bordering countries in this part of Africa tend to increase or decrease in economic freedom together over time.

## 5 Benchmark Results

Table 1 presents the results of econometrically isolating and estimating the capitalist contagion illustrated in the foregoing figures. To make comparing the strength of economic freedom's versus democracy's spread rate easy, the top row of this table presents Leeson and Dean's (2009) spatial coefficient estimates for democracy for their 1991–2001 sample. Since these estimates are right above our spatial coefficient estimates for economic freedom, by looking at the first two rows of Table 1 you can quickly compare capitalism's spread rate to democracy's for each of the specifications that Leeson and Dean (2009), and we, consider.

Economic freedom's spatial coefficient is significant across all specifications using both spatial models. Capitalism is contagious. Further, in five of the eight specifications in Table 1, capitalism's spread rate is stronger than democracy's. Most notably, capitalism's spread rate is stronger than democracy's in all four specifications that include comprehensive year and country fixed effects (columns 3 and 4).

In three of the four specifications without two-way fixed effects, democracy spreads stronger than capitalism, but only slightly so. In column 1, which controls only for island status, both capitalism and democracy spread at nearly the identical rate. Unadjusted, a country,  $i$ , whose geographic neighbors on average experience a one unit larger increase in economic freedom than the geographic neighbors of some other country,  $j$ , experiences a 0.13 unit larger increase in economic freedom than  $j$ . In column 2, which controls for countries'

lagged levels of economic freedom, capitalism's spread rate is again nearly the same as democracy's in both models. Countries "catch" between 10 and 16 percent of the average change in economic freedom in their geographic neighbors.

However, when our regressions are fully specified with two-way fixed effects, democracy's spread rate falls to between 1 and 4 percent, and in one specification is insignificant and actually negative. Capitalism's spread rate falls less, to between 8 and 14 percent. In these specifications, capitalism's spread rate is roughly three to six times stronger than democracy's.

Despite this difference, the most striking feature of Table 1 is the similarity of capitalism's and democracy's spread rates. Excluding the single specification that generates insignificant results, democracy's estimated spread rate ranges between approximately 1 and 17 percent. Capitalism's estimated spread rate ranges between approximately 8 and 16 percent. The range of capitalism's estimated spread rate fits within the narrow estimated range of democracy's spread rate. If one were to try and predict changes in countries' economic freedom using the spread rate of democracy, he would be off, but not wildly so. Even though in columns 3 and 4 capitalism's estimated spread rate is considerably stronger than democracy's, since both spread rates are modest, the shared smallness of these spread rates is more important than the measured differences between them.

As Leeson and Dean (2009) demonstrate for democracy, even assuming dramatic changes in countries' institutions, a spread rate in the range reported in Table 1 isn't large enough to generate large democratic (or autocratic) spillovers onto neighboring countries. The math is the same for capitalism. Our estimates suggest that even big swings in economic freedom in one country can't generate economically large changes in their neighbors'

economic freedom. Neither capitalist nor democratic contagion effects are strong enough to substantially affect economic or political institutions in geographic regions.

## **6 Sensitivity Analysis**

We perform the same robustness tests for our investigation of contagious capitalism that Leeson and Dean (2009) perform for their investigation of democratic dominoes. The most important of these, reported in Table 2, control for countries' income levels and income growth rates. Like Leeson and Dean, we find that adding these controls does little to affect our main finding. Capitalism is still contagious, but modestly so.

There is one important difference from the results in Table 1. In all but one specification in Table 2, democracy spreads more strongly than capitalism. Capitalism's spread rate is nearly the same as democracy in three others. But in at least four specifications, democracy's spread rate is noticeably larger. The reason for this is straightforward. Measures of prosperity, such as GDP per capita and GDP per capita growth, are highly and positively correlated with economic freedom but only weakly correlated with democracy (see, for instance, Gwartney, Lawson, and Holcombe 1999; Gwartney, Lawson, and Block 1996; Barro 1996). That makes controlling for average income and average income growth especially problematic in regressions that also include economic freedom as an independent variable. The high degree of collinearity wipes out some of the effect that would otherwise be attributed to economic freedom and "wrongly" attributes it to economic freedom's outcomes—income and income growth—instead. The result is an unduly weak estimated effect for economic freedom and an unduly strengthened estimated effect for income and income growth.

Besides this, the most notable attribute of Table 2 remains the similarity between capitalism's and democracy's estimated spread rates. Controlling for average income and average income growth, democracy's spread rate is between about 10 and 13 percent. Capitalism's estimated spread rate controlling for these variables is between about 8 and 13 percent. Capitalism's estimated spread rate again fits inside democracy's estimated spread rate despite its narrowness, highlighting the closeness and modesty of the two.

Our other sensitivity checks also follow those Leeson and Dean (2009) use. We rerun our regressions excluding islands, looking at countries' levels of economic freedom instead of their changes in economic freedom, and weighting countries in the spatial weight matrix,  $\mathbf{W}$ , by population size. Our results are similar. The spatial estimates in the level regressions jump around a great deal more, as they do for Leeson and Dean. But when we add two-way fixed effects, they're similar to the other results. Capitalism's spread rate is typically stronger than democracy's but remains similar and modest.

## **7 Concluding Remarks**

There are a few possible reactions to our findings for contagious capitalism. Considering that economic freedom seems to spread more strongly than democracy, one reaction is to delve deeper into why this is so. To do this, it's important to examine the potential channels of spreading economic freedom discussed in section 2. For example, it might be that citizens are more responsive to changes in economic policies and institutions than they are to changes in political ones, rendering Tiebout competition, and resulting "diffusion effects," more powerful in the case of economic freedom than in the case of democracy. Similarly, the benefits/harms of economic progress/retrogression may be easier to observe than those associated with

political progress/retrogression, making demonstration effects more powerful for economic reforms than for political ones. Economic zones and communities may place a greater premium on would-be members satisfying economic policy/institutional requirements than political ones, and so on. Alternatively, some other, unidentified, channel may be responsible for why capitalism spreads more strongly than democracy. Researchers interested in the “relative strength question” should explore these and related avenues.

A second approach to our results emphasizes the similarity between capitalism’s and democracy’s spread rates. Although capitalism may spread more strongly than democracy, both spread rates are quite modest—modest enough that their economically significant feature is their shared modesty rather than their estimated differences.

If one takes this approach, there are at least two potential ways to think about this similarity. The first views the similarity and modesty of capitalism’s and democracy’s spread rates as sheer coincidence. The second views the similarity between capitalism’s and democracy’s spread rates as indicative of the operation of some foundational variable that underlies and explains both. This is our view.

The similarity of capitalism’s and democracy’s spread rates suggests that ultimately an important “meta-institution,” such as culture, may be driving changes in both political *and* economic institutions. In other words, it may be culture that spreads between geographic neighbors, which in turn permits second-order changes in political and/or economic institutions. This would explain the similarity between capitalism’s and democracy’s spread rates, as well as why these rates are so modest. Changing policies and institutions is one thing. However, changing culture is much more difficult. If ultimately it’s culture that’s contagious, it

may not be so mysterious why the contagion is relatively weak; culture is notoriously “sticky” (see, for instance, Williamson 2000; North 2005; Boettke, Coyne, and Leeson 2008).

The idea that cultural spillovers could be driving economic and political ones would also help explain the coupled relationship between economic freedom and democracy, on the one hand, and economic repression and autocracy, on the other—i.e., why we tend to observe these particular political-economic pairs and not others. When cultural changes in one country that reflect more liberal values spill over onto a neighboring country, they’re likely to lead to increases in both economic and political freedom and vice versa for cultural changes that reflect less liberal values.<sup>2</sup>

Research in political economy is only just beginning to probe questions related to this hypothesis quantitatively. And, for the moment, the data that are available permit only a surface look at the role of culture. Nothing like a spatial econometric analysis, such as that which Leeson and Dean (2009) use to explore democracy and this paper uses to explore economic freedom, is possible for culture yet. But our results suggest that if (and hopefully when) such data become available, the key to explaining political-economic “diffusions” may lie here. Researchers intrigued by the closeness of capitalism’s and democracy’s spread rates, and intrigued by the interrelationship between economic and political institutions more generally, should explore this possibility in future work.

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<sup>2</sup> On the conjecture that economic freedom and democracy on the one hand, and economic repression and autocracy on the other, are intimately related to one another in the long run, see Hayek (1945) and Friedman (1962).

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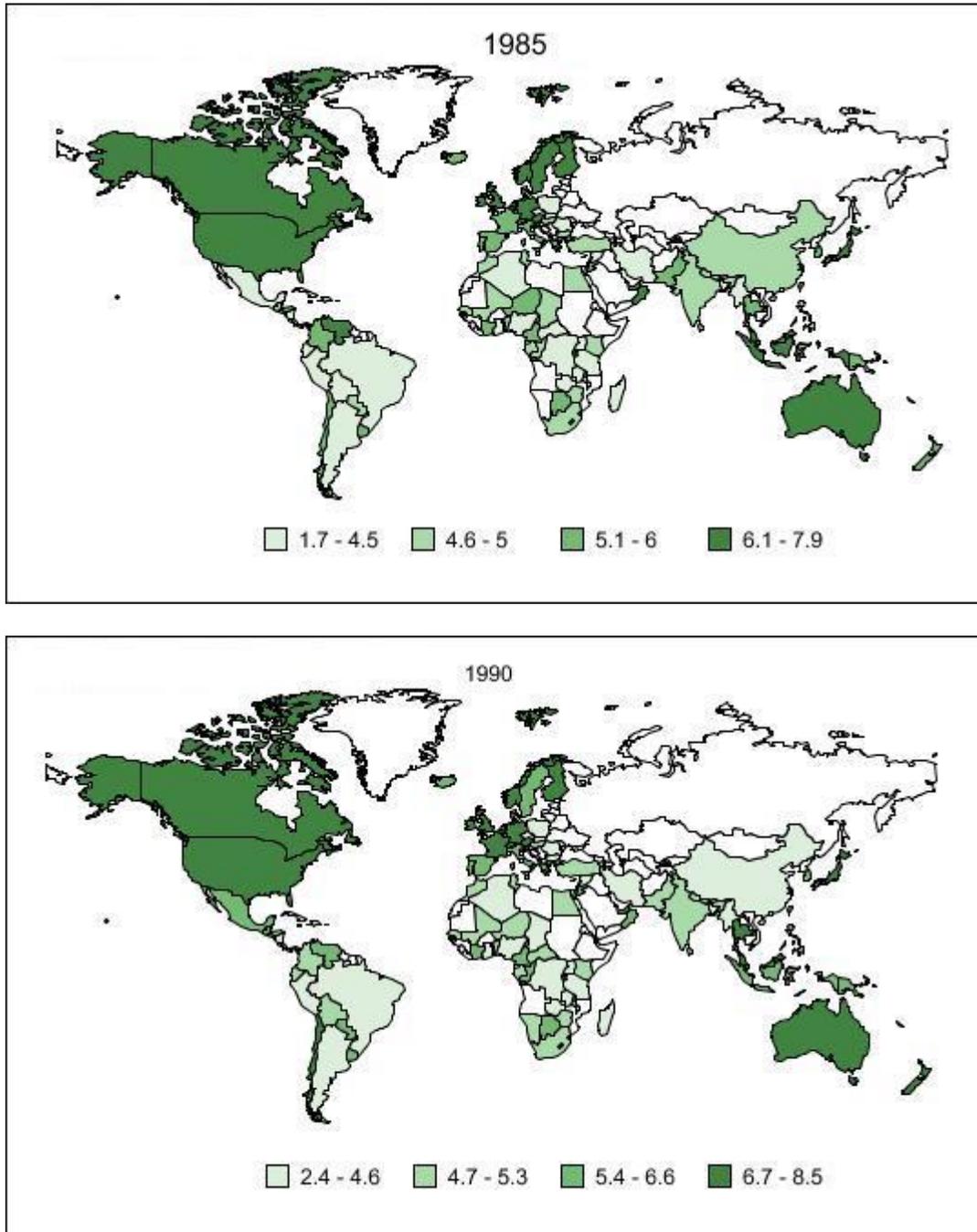
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Figure 1. Evidence for Contagious Capitalism at a Glance



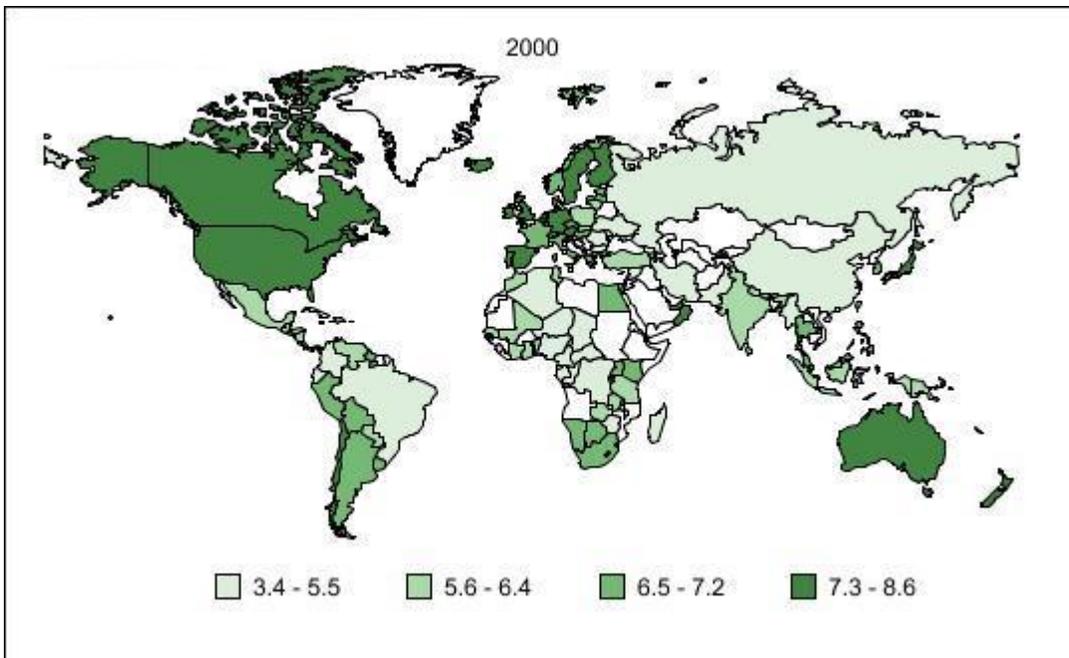
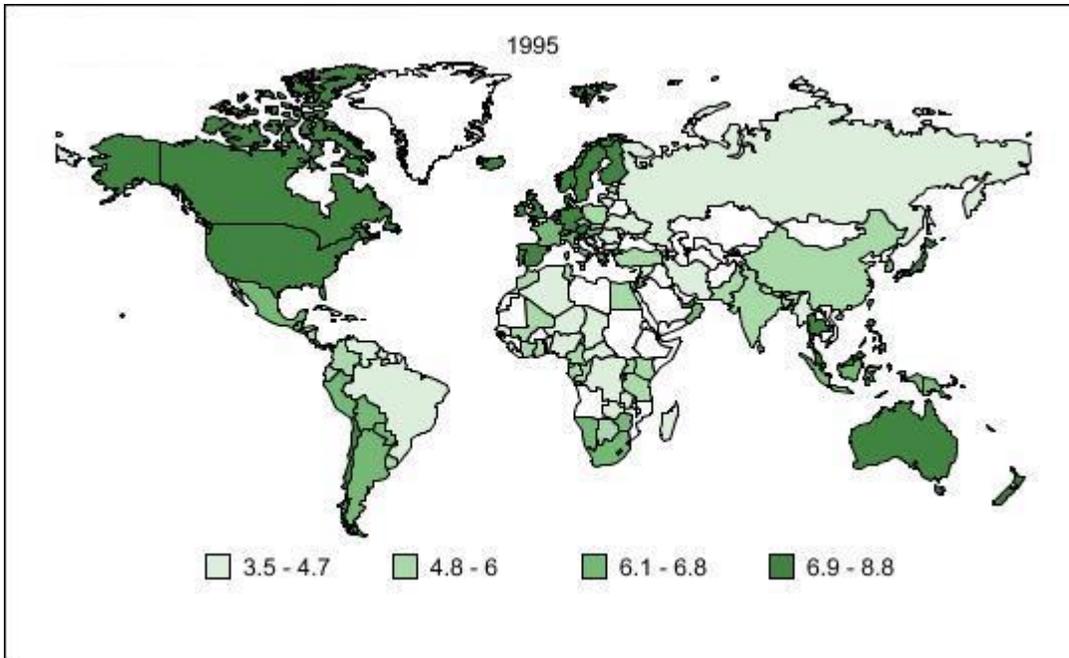


Table 1. The Spread of Capitalism, 1985-2005

	SAR				SEM			
	1	2	3	4	1	2	3	4
Leeson and Dean's (2009) democracy spatial coefficients	0.135*** (3.602)	0.097*** (7.864)	0.014 (0.288)	0.028*** (4.329)	0.132*** (3.559)	0.169*** (4.636)	-0.018 (0.255)	0.036*** (5.051)
Rho	0.131** (2.360)	0.119** (2.197)	0.086* (1.568)	0.076* (1.526)				
Lambda					0.132** (2.485)	0.156*** (2.962)	0.118** (2.211)	0.143*** (2.702)
Lagged freedom level		-0.120*** (5.931)		-0.510*** (11.026)		-0.133*** (6.305)		-0.519*** (11.224)
Constant	0.001*** (6.277)	0.001*** (7.350)	-0.001** (2.468)	0.001*** (6.492)	0.001*** (6.806)	0.001*** (7.951)	-0.001** (2.386)	0.001*** (6.536)
Log-likelihood	-200.832	-186.611	155.041	-101.536	-200.866	-181.995	-154.314	-99.365
R-squared	0.024	0.100	0.214	0.392	0.024	0.111	0.219	0.402
Observations	415	415	415	415	415	415	415	415

Notes: Dependent variable: change in freedom (t-statistics in parentheses). Spatial weight matrix: first-order contiguity. \*\*\*=1%, \*\*=5%, \*=10%. Variable included but not reported: island dummy in columns 1 and 2. Columns 3 and 4 include year and country fixed effects.

Table 2. Controlling for GDP p/c and GDP p/c Growth Rate, 1985-2005

	SAR				SEM			
	1	2	3	4	1	2	3	4
Leeson and Dean's (2009) democracy spatial coefficients	0.126*** (3.153)	0.110*** (8.035)	0.125*** (3.092)	0.098*** (7.917)	0.126*** (3.155)	0.108*** (8.112)	0.125*** (3.089)	0.098*** (8.003)
Rho	0.086* (1.586)	0.076* (1.893)	0.079* (1.793)	0.076* (1.812)				
Lambda					0.132** (2.485)	0.098* (1.825)	0.117** (2.191)	0.093* (1.729)
GDP p/c		-0.001** (2.181)		-0.001** (2.037)		-0.001** (1.996)		-0.001* (1.910)
GDP p/c growth rate			0.691*** (3.265)	0.669*** (3.172)			0.693*** (3.267)	0.680*** (3.215)
Constant	-0.001** (2.486)	-0.001** (2.004)	-0.001** (2.492)	-0.001** (2.040)	0.001*** (6.806)	-0.001* (1.947)	-0.001** (2.351)	-0.001* (1.942)
Log-likelihood	155.041	-152.706	-149.794	-147.731	-200.866	-152.412	-149.044	-147.314
R-squared	0.214	0.222	0.233	0.241	0.024	0.225	0.238	0.243
Observations	415	415	415	415	415	415	415	415

Notes: Dependent variable: change in freedom (t-statistics in parentheses). Spatial weight matrix: first-order Contiguity. \*\*\*=1%, \*\*=5%, \*=10%. Columns 1-4 include year and country fixed effects.

Appendix A: Sample Countries

Country	This paper	Leeson and Dean (2009)
Albania		X
Algeria	X	X
Angola		X
Argentina	X	X
Australia	X*	X*
Austria	X	X
Bahrain	X*	X*
Barbados	X*	
Belgium	X	X
Benin		X
Bhutan	X	X
Bolivia	X	X
Brazil	X	X
Bulgaria	X	X
Burkina Faso		X
Burundi		X
Cambodia		X
Cameroon	X	X
Canada	X	X
Cen. Afr. Rep.		X
Chad		X
Chile	X	X
China	X	X
Colombia	X	X
Comoros		X*
Congo, Dem. R.	X	X
Congo, Rep. of		X
Costa Rica	X*	X
Cuba		X*
Cyprus	X*	X*
Czech Republic		X
Denmark	X*	X
Djibouti		X
Dom. Republic	X*	X

Ecuador	X	X
Egypt	X	X
El Salvador		X
Eq. Guinea		X
Ethiopia		X
Fiji		X*
Finland	X	X
France	X	X
Gabon		X
Gambia		X
Germany		X
Ghana	X	X
Greece	X	X
Guatemala	X	X
Guinea		X
Guinea-Bissau		X
Guyana		X
Haiti		X
Honduras		X
Hong Kong	X	
Hungary	X	X
Iceland	X*	
India	X	X
Indonesia	X	X
Iran	X	X
Iraq		X
Ireland	X	X
Israel	X	X
Italy	X	X
Ivory Coast	X	X
Jamaica	X*	X*
Japan	X*	X*
Jordon	X	X
Kenya	X	X
Korea, North		X
Korea, South	X*	X
Kuwait	X*	

Laos		X
Lesotho		X
Liberia		X
Libya		X
Luxembourg	X	
Madagascar	X*	X*
Malawi	X	X
Malaysia	X	X
Mali	X	X
Malta	X*	
Mauritania		X
Mauritius		X*
Mexico	X	X
Mongolia		X
Morocco	X	X
Mozambique		X
Myanmar	X	X
Namibia		X
Nepal		X
Netherlands	X	X
New Zealand	X*	X*
Nicaragua		X
Niger	X	X
Nigeria	X	X
Norway	X	X
Oman		X
Pakistan	X	X
Panama		X
Papua N. Guinea		X
Paraguay		X
Peru	X	
Philippines	X*	X*
Poland		X
Portugal	X	X
Qatar		X
Romania		X
Russia		X

Rwanda		X
Saudi Arabia		X
Senegal	X	X
Sierra Leone		X
Singapore	X*	X*
Somalia		X
South Africa	X	X
Spain	X	X
Sri Lanka	X*	X*
Sudan		X
Swaziland		X
Sweden	X	X
Switzerland	X	X
Syria	X	
Taiwan	X*	X*
Tanzania	X	X
Thailand	X	X
Togo		X
Trin. & Tob.	X*	X*
Tunisia	X	X
Turkey	X	X
U. Arab Emir.	X*	X
Uganda	X	X
UK	X	X
USA	X	X
Uruguay	X	X
Venezuela	X	X
Vietnam		X
Yemen		X
Zambia	X	X
Zimbabwe	X	X

\* Indicates island status including “data island.”