

Democracy and International Financial Liberalization

Dennis P. Quinn

Professor

McDonough School of Business

Georgetown University

Washington, D.C. 20057

First draft, 18 November 1998

Current draft, 26 July 2000

Prepared for presentation at the 2000 Annual Convention of the American Political Science Association. © APSA.

I am grateful for financial assistance provided by the National Science Foundation (SBR-9729766 and SBR-9810410), the McDonough School of Business, and the Graduate School of Arts and Sciences, Georgetown University. This project has evolved from several other projects, done in collaboration variously with Carla Inclán, Maria Toyoda, and John Woolley. I thank Carla, George Brenkert, Phil Keefer, Gerry Mara, John Mayo, Pietra Rivoli, Joe Siegel, Ed Soule, and Bennet Zelner for extensive and thoughtful comments. Juan Carlos Zepeda-Molina and Rodrigo Castro-Fernandez ran many of the model specification tests, and Jose Arrellaga-Ferrer provided research assistance. An early version was presented at the Managing Volatility Workshop at the World Bank, 22 June 2000. I am responsible for all errors. Correspondence may be address to quinnd@gunet.georgetown.edu.

ABSTRACT

Democracy and International Financial Liberalization

I propose that democracies are characterized by a moral and legal logic such that sustained democratization produces sustained liberal international financial regulation. Autocracies, by their nature, are likely to be characterized by inconsistent international financial regulatory policies. I also propose that capital account liberalization increases the risk of democratic reversals, but that current account liberalization reinforces democratic institutions. I employ pooled, cross-section, time-series models, and 42-country case studies using Vector Autoregressive models. The main results are that democracies liberalize international finance, but that capital account liberalization is associated with subsequent democratic reversals. Global trends in democracy and changing beliefs about the appropriateness of international capitalism influenced democratization and financial liberalization respectively.

Democracy and International Financial Liberalization

The causal link between regime type and policy choice is a modern topic with ancient antecedents. In the Fourth Century BC, Aristotle proposed that democratic, oligarchic, and tyrannical polities were distinctive in the types of policies each adopted.¹ Recent studies have confirmed that modern democracies and autocracies differ systematically in some policies that each adopts. (See, e.g., Helliwell 1994; Keefer and Knack 2000; Kuboto and Milner 1999; Mansfield, Milner, and Rosendorff 2000; and Rodrik 1999.)

Aristotle also proposed a dynamic whereby the policies that a polity pursued, in turn, affected its regime type.² His comments about the effects of what we term liberal international economic policies were particularly pessimistic.³ From him, we have no grounds for optimism for how the liberalizing economic policies of modern Russia, China, and Brazil might enhance the democratic prospects of each. This proposition, in contrast to the former, is at odds with modern findings (see, e.g., Lipset 1994, 2-3).

This paper examines a facet of the globalization side of both propositions. Specifically, I examine the relationship between the degree of *democratization* of a nation and its degree of openness or restrictiveness in the laws governing its *international financial transactions*. The question I ask is whether and how the prior level of, and changes in, one variable affect subsequent *changes* in another.

The data I use extend as far back as 1950 for the financial liberalization variables, and from 1946 for the democracy measure. The length of the series allows me to capture what Huntington (1991) called the Second and Third Waves of democratization, as well as analogous second and third waves of international

¹ See *Politics*, book IV, ch. 11, §4 - §17, ch. 12, §1 - §6.

² See especially *Politics*, book V, “Causes of Revolutions and Constitutional Change.”

³ See his discussion on whether states should be “marts of the world” (Book IV, ch. vi, §4). Aristotle believed that retail trade “is a method of exchange which is justly censured” ... “as the gain in which it results is not naturally made ... but made at the expense of other men.” (Book I, ch. x, §4) Aristotle harshly condemned what we would call financial services because “of all modes of acquisition, usury is the most unnatural” with bad consequences to the character of the polities that permitted these practices (ibid.)

financial liberalization. I employ pooled, cross-section, time-series models, using variously yearly and five-year data. I also use Vector Autoregressive models to undertake 42 country case studies.

INTERNATIONAL FINANCIAL REGULATION: Defining Terms

International financial transactions are cross-border payments and receipts. Current account financial transactions are those in which the underlying transaction is in goods or services. Capital and financial account transactions are those between residents and nonresidents in which financial assets and liabilities are exchanged: e.g. foreign direct investment. The degree of liberality or restrictiveness of a country's laws regarding these international financial transactions is a political choice. A financially open economy is one in which non-residents may freely establish enterprises to compete with domestic enterprises, and in which residents may invest in international assets of their choice. Governments have limited purview in directing private asset allocation. In contrast, a financially closed economy is one where economic resources are generally allocated through some sort of political process, and in which investor choices are highly constrained. Financially closed economies are aptly described as "repressed" economies (McKinnon 1991).

THEORY

Strong theories have been advanced proposing many variations of the democracy-economic liberalization relationship. (See Diamond and Plattner 1995, Keech 1995, Li and Reuveny 2000, Przeworski and Lemongi 1997 for reviews.) Theory is not as well developed about links between democratization and international financial liberalization, a narrower topic. I organize my discussion around two strands of theory.

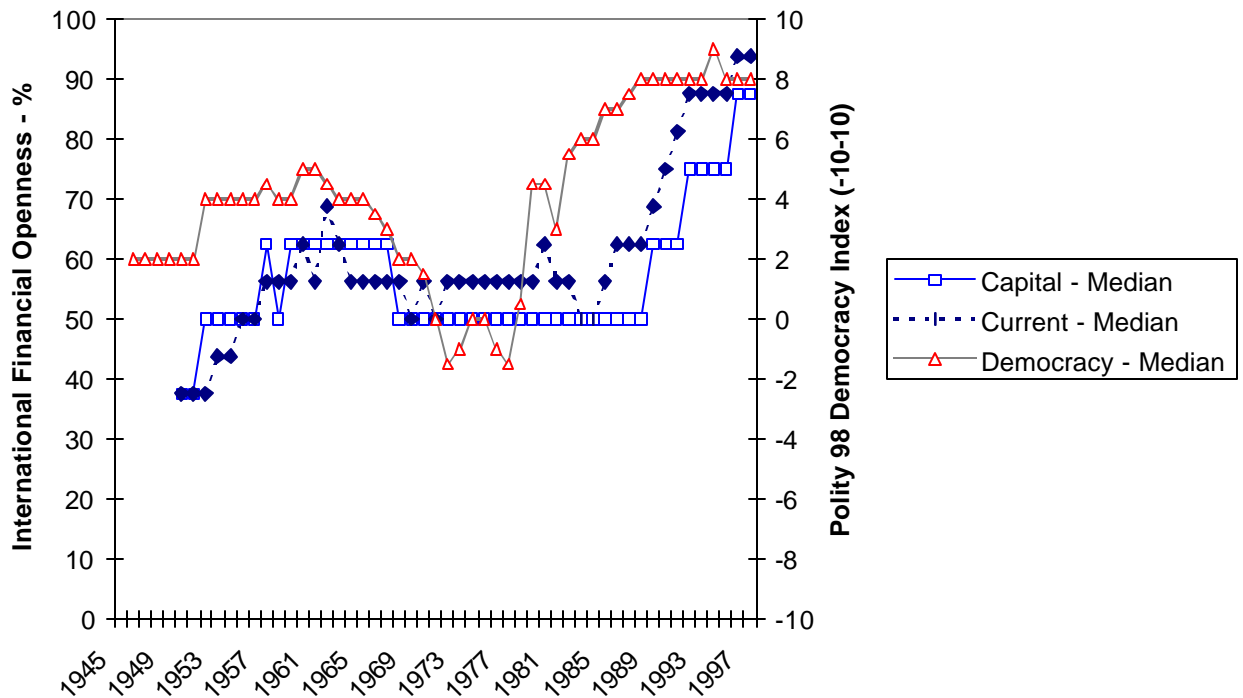
The Democratic Underpinnings of International Financial Liberalization.

By the early 1950s, twelve countries had substantially liberalized international finance transactions: Canada, Cuba, the Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Liberia, Mexico, Panama, Venezuela, and the United States. (See IMFb, various; authors). Only two of them, Canada and the U.S., were democratic, and these were among the four that sustained financial liberalization thereafter.⁴

⁴ Of the other two, Panama democratized following the 1989 U.S. invasion, and Liberia collapsed as an organized state.

In 1950, or at independence, twenty-seven of the 66 countries for which financial liberalization data are available, were democratic (i.e., a score of 7 or higher on the Polity 98 scales, described below). Twenty of the twenty-seven sustained more or less full democratization, and all twenty deregulated in part or in whole their regulations on current and capital account transactions.⁵

**Figure 1 - Democracy and International Financial Openness
(65 countries, 1946-97)**



See Figure 1, which graphs median observations of indicators for democracy, capital account and current account openness for 66 countries 1945/1950 (or independence) to 1997. (The data are described below.) Huntington's (1991) second and third waves of democratization are clearly visible in Figure 1, with

⁵ These are: Canada, Costa Rica, the U.S., India, Israel, Japan, Austria, Belgium, Denmark, Finland, Germany, Ireland, Italy, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom, Australia, and New Zealand. The seven democracies that suffered some degree of reversal are Burma, France, Malaysia, Nigeria, Singapore, Sri Lanka, and Turkey. The Polity 98 scores for France dropped from 10 to 5 in 1958 as the Algerian war of independence intensified and the 4th Republic collapsed. Because of unobtainable data on financial regulation, all former Soviet-Bloc countries are excluded from this investigation.

a democratic peak from 1960-2, an authoritarian trough in the 1970s, and rapid increases in democratization from the late 1970s on. Matching second and third waves of international financial liberalization are also evident.⁶ To the eye of the author, the waves of democratization and financial liberalization are related.

I propose a mechanism through which democratization and international financial liberalization are positively correlated worldwide. It is that democracies are characterized by a moral and legal logic such that they are more likely to liberalized international finance than autocracies, and are more likely to sustain liberalization once it occurs.

A Universal Interest. This paper is ultimately about how two sets of legal rights – the right to political participation and the right to undertake international financial transactions – are connected to each other worldwide. Because legal rights are generally reflective of the underlying interests (and the values placed on these interests) held by citizens or ruling elites or the ruling autocrat, a relationship found worldwide between these two rights is likely to be grounded in the interests, if any, held worldwide.

What interests are held worldwide? A moral principle, avoiding arbitrarily harming others, is universal because we each have an interest in not having avoidable arbitrary harm happen to ourselves, and the principle of reciprocity requires us to respect in others what we wish to have respected in ourselves (Berlin 1959).⁷ Further, because of our individual interests in avoiding arbitrary harm, we each have a rational interest in seeing this foundational principle respected inside the borders of our country. This is because, as rights advocates argue, if arbitrary harm does not routinely happen to other citizens, it is not as likely to happen to me.

If this principle is universally applicable, and if we have interests in seeing it respected, the principle is an interest held worldwide. And, if this moral principle is indeed reflective of interests held worldwide, we should expect to find it to be a common denominator of legal systems in societies where citizen interests

⁶ The first wave was the financially open international economy of the pre-1914 period. See Eichengreen 1996.

⁷ Moral relativists would suggest that no moral principles are universal. Moral relativists, however, fail to distinguish beliefs, which do differ, from values, which differ rarely. (See Kekes 1993; Midgley 1981). Moral relativism also degenerates into solipsism, with unpalatable conclusions (Rachels 1986).

and views are reflected in law: i.e., democracies. The laws of an autocratic regime might reflect this principle, but through the happenstance of the congruence between the ruler's views and moral principles.

Let me next note that certain legal rights are useful to individuals in helping them secure the benefits of avoiding arbitrary harm. These rights include minimal property rights, minimum legal immunities from arbitrary prosecution, minimal enforcement of laws against banditry and violence, and some minimal voice in how activities and practices that affect you are conducted.

In seeking to avoid arbitrary harm, rational individuals will demand more useful legal rights prior to less useful legal rights. Further, if that right which is more useful in securing our core interest is not granted, then rational individuals have no basis for believing that the less useful right will be secure.

Compare now how much of a utilitarian contribution to the core principle of avoiding harm is made by the legal right of open political participation vs. the legal right to transact international business with non-residents. The right to open political participation allows each citizen a voice in the event of infringement of the basic principle, and the possibility of retaliating against incumbents who are either the source of violations or who fail to protect against violations. It also allows for a mechanism through which citizens can demand and obtain other rights. Open political participation is therefore useful both directly as a means of avoiding arbitrary harm, and indirectly, as a means of gathering further protective rights.

The right to international financial transactions allows some citizens, especially wealthier ones, the possibility of moving assets out of a setting where violations happen. The right to hold international assets is a particularly advanced form of private property arrangements undertaken by few, however, and cannot be crucial for the majority in helping them avoiding arbitrary harm. It might even be that the ability of wealthier individuals to exit settings in which arbitrary harm is a feature decreases the possibility that the majority will find effective voice to reform the setting. Further, the right to international financial transactions does not in and of itself provide a direct mechanism for correcting violations.⁸

⁸ It could be posited that the indirect mechanism of moving assets out of a country (or the threat of it) would constrain the behavior of autocrats. In practice, those autocrats with effective police powers need only close borders. Moreover, a common reason for highly despotic regimes to liberalize international financial transactions was that the ruling elite

Hence, rights to political participation must be judged to be of greater utility in protecting our core interests. The right to undertake international financial transactions, while possibly useful, is less useful.

The claim to international financial transactions is therefore less likely to be recognized if the more fundamental right to political participation is denied. The right to undertake international financial transactions, moreover, is likely to be respected only if democratic rights are already secure.

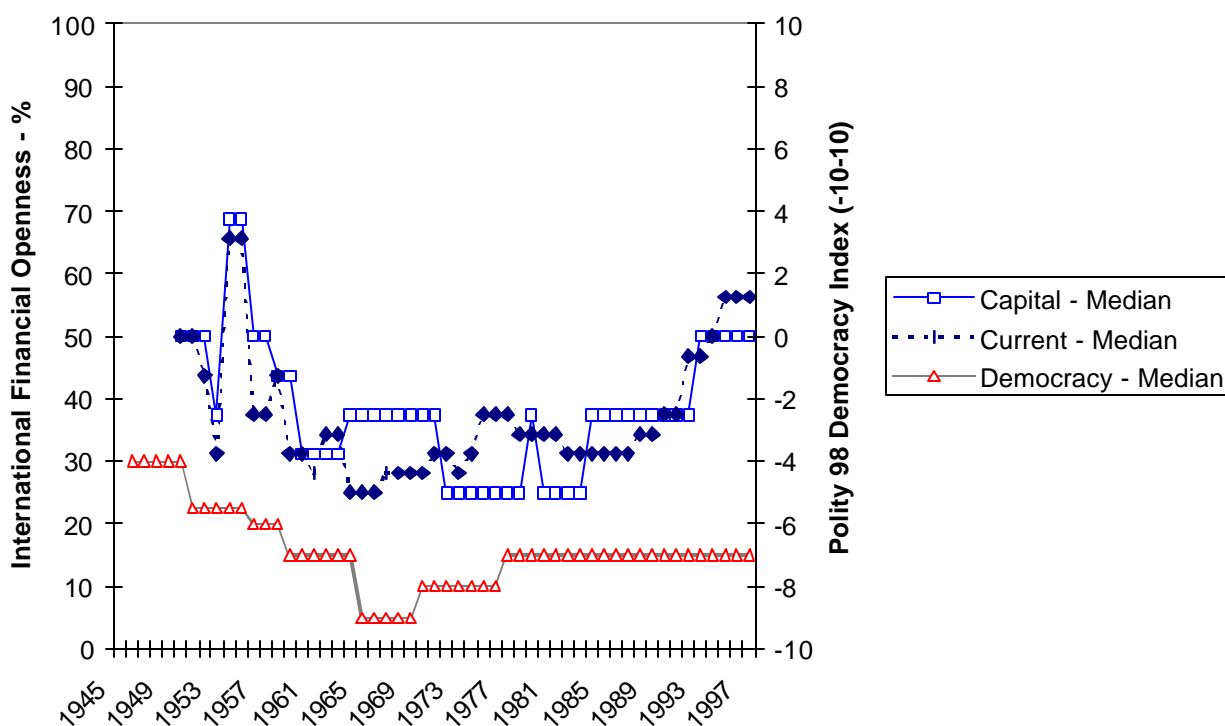
Two Thought Experiments. The importance of this utilitarian view of rights in this discussion of democracy and international financial openness can be gleaned from two brief thought experiments. First, which system is more likely to protect the legal rights associated with international financial transactions, that which by definition limits the authority of rulers, or that in which rulers are not subject to popular review? The answer is evident: we should expect, in a static case, autocratic nations to be less open. Which system is more likely to protect the institutions of democracy, one with full freedom of international flows, or one with restrictive rules? This answer is not evident. Indeed, many fully democratic nations – Britain in the period from 1932 to 1979 comes to mind – had full to partial restrictions on financial flows without loss of democratic vigor.

Second, imagine now an authoritarian regime with open financial markets. How likely is liberalization to be sustained? In an authoritarian setting, the rights to international financial transactions are unlikely to be secure if the more basic rights of political participation are not exercised. That is, imagine that, after initially authorizing international investments, an autocrat seizes these assets. What recourse do citizens have if voting is not allowed, and neither moral nor legal logic constrains an autocrat who already rejects a citizenry's more basic rights? The "right" to undertake international financial transactions is really a revocable privilege in an autocratic state. After all, what procedures can safeguard citizens against an autocrat? If such procedures were to exist, the autocrat would not be an autocrat (or less of one)!

held all the assets anyway (e.g., Guatemala in the 1950s; Haiti under the Duvalier family). In other cases, the autocratic or semi-autocratic states that fully liberalized financial transactions were states in civil war, and which could not in any event enforce restrictions on either capital exports or human rights abuses (e.g., Liberia in the late 1980s and 1990s, Georgia in the 1990s). In contrast, measures of political democratization are extremely highly correlated with indicators of basic civil rights, which could be considered proxies for the basic principle of avoiding arbitrary harm.

It might be in the autocrat's interest to allow a regime of international financial transactions. This is particularly true for current account transactions, which involve trade in goods and services, and which presumably increase the wealth of nations. The economic effects of capital account liberalization are less clear, and investors cannot be sure that the autocrat's interests in their freedom to move their investments in and out will stay constant. See Figure 2, which graphs median levels of democracy, capital account openness, and current account openness for the seven nations that have been continuously autocratic (measured by Polity 98 scores of zero or below from 1945 or at independence to 1997).⁹ At times, autocrats have liberalized, but autocratic liberalization has not been sustained on average.

**Figure 2 - Autocratic Countries and Financial Openness
(Seven countries, 1946-97)**



Will Sustained Financial Openness Lead to Democratization? If an open international financial regime were to be maintained by an autocratic regime, it might contribute to the rise of a socio-economic class that demanded political freedoms. The regime might then evolve into a more democratic one. Something like

⁹ These nations are China, Iran, Iraq, Jordan, Morocco, Liberia, and Tunisia.

this is what Smith and Hume had in mind in their theorizing that economic liberty would lead to political liberty (Whitehead 1993). Modern theorists, e.g. Lipset 1994, would concur.

In a world where Western financial service firms employ tens of thousand of Chinese residents inside an ostensibly communist country, this view must be given weight. As supporting evidence for this proposition, note that most of the ten autocratic countries that were characterized by financial openness in the early 1950s (listed on page two) eventually democratized, and those that have not, either reversed liberalization or collapsed. Two other regimes were characterized from the 1960s on by long periods of autocracy joined to international financial openness: Indonesia and Singapore. Of these twelve countries, only Singapore survives today as an example of a financially open, long-lived authoritarian regime.

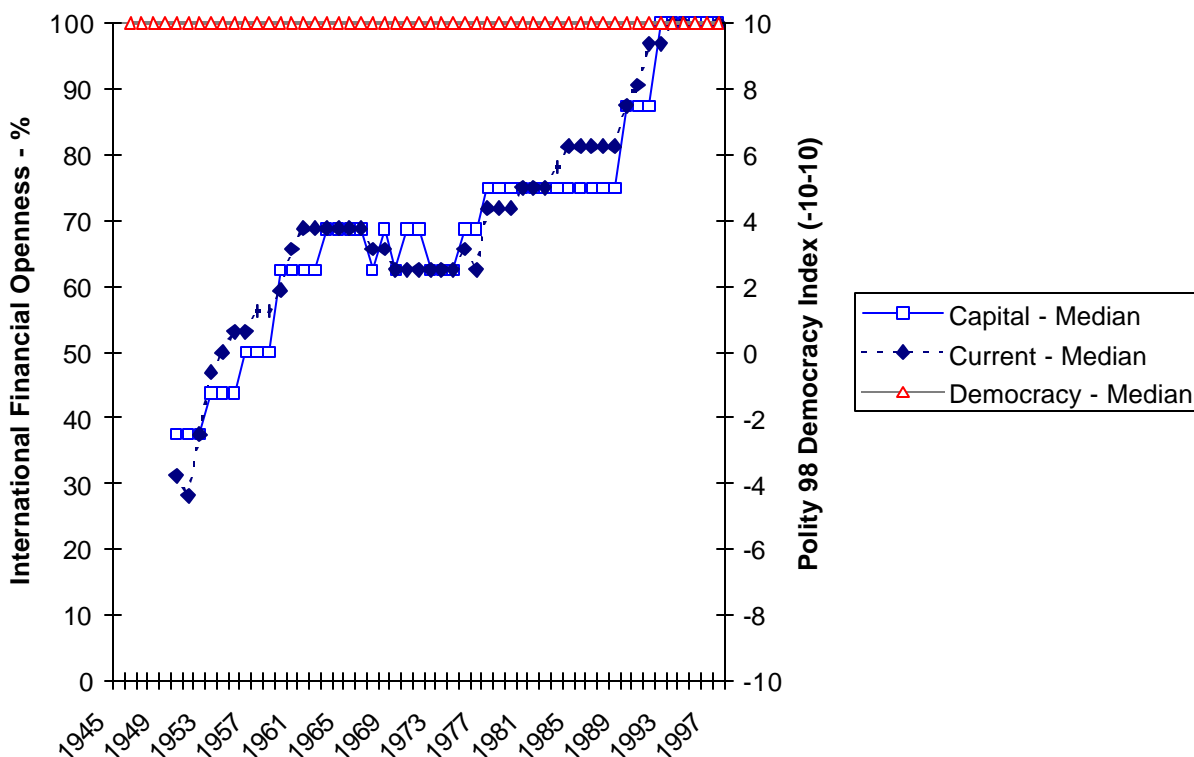
But, which causes what? Do autocrats eventually restrict financial flows, or do open autocracies eventually democratize, or is the apparent correlation coincidental? Below, I will analyze econometrically many cases, including some that seemingly bloomed into democracies subsequent to at least a partial liberalization of international finance: Chile, Korea, and Spain in particular.

Will Closed Democracies Liberalize? What about a closed democracy? A democratic government is more likely to entertain demands from voters for greater liberties, including the right to undertake international financial transactions. Hence, liberalization of international transactions might result from normative processes. Liberalization also arises from democratic partisan competition. In a study of twenty-one advanced industrial democracies, Quinn and Inclán 1997 found that the primary explanation for financial liberalization was that when parties whose partisans benefit from international financial liberalization won office, liberalization followed. Financial liberalization was sustained because it was rarely reversed when the liberalizing governments were ousted, and prior incumbents were returned to office.

Once liberalization occurs, it is against the background of democratic rulers who are already constrained by procedural rules and recognized legal rights. Hence, moral claims, democratic competition, and legal procedures are more likely to be impediments to asset seizures in democracies, even if the economic interests of incumbent politicians were to lead them to wish to seize or restrict non-resident assets.

Of the twenty nations that were more or less continuously democratic during the time of this investigation, only two, India and Israel, retain substantial restrictions on international financial flows, and both are partly open. None of the continuously democratic countries, once they had substantially liberalized international finance, returned to the old levels of regulation.

**Figure 3 - Democratic Nations (>7) and Financial Openness
(20 countries, 1946-94)**

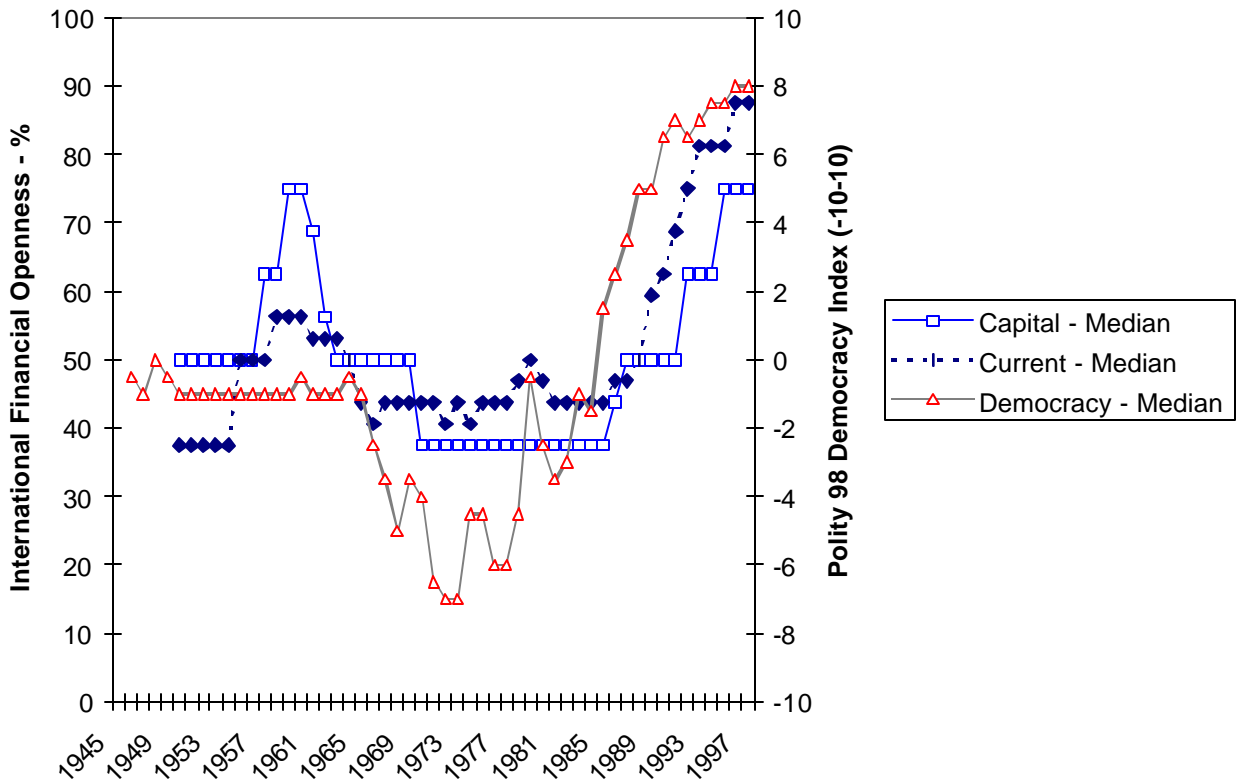


See Figure 3, which graphs median observations for democracy and capital account and current account openness for the twenty continuously democratic nations. In Figure 3, high levels of democratization act seemingly as a magnetic force on the iron filings of capital account and current account liberalization, pulling them inexorably upward toward full liberalization. The reverse wave of financial closure, evident in Figures 1 and 2, is missing from the democratic countries in Figure 3.

The absence of any democracy fully closed to international financial transactions, and the absence of all but one continuously financially open autocracy, is compelling. It suggests, reminiscent of Lindblom's

1977 conjectures about democracy and markets, that democracy and international financial openness are profoundly and positively connected.

**Figure 4- Transition Countries (39)
Democracy and International Financial Openness (1946-97)**



Transition Countries. Figure 4 shows median observations for 39 countries that were neither always democratic nor always autocratic. Note that median levels of capital account openness were much higher for these transition economies in the late 1950s than for the continuously democratic countries.

The waves of democratization and financial liberalization are again seemingly related. But, what causes what? It appears that capital account openness leads democracy in the early 1960 and again in the early 1970s. Democracy appears to lead both current account and capital account openness in the 1980s and 1990s. Econometric analysis is necessary to disentangle the relationships, however.

Observable Implications. It is, of course, very difficult to operationalize and test directly for the effects of the moral and legal logic of democracy on international financial liberalization. Nevertheless, the argument

advanced above gives rise to several precise predictions. Over time, democracies are likely to liberalize international finance and sustain that liberalization. Autocrats, in contrast, are more likely either to restrict finance or to reverse liberalization subsequently. A second implication is that the effects of democratic institutions will be especially pronounced for capital account regulation.

H₁: Sustained democracy leads to sustained financial liberalization, especially of the capital accounts.

From Smith and Hume onward, scholars have proposed that liberal markets create social classes of individuals whose demands and interests give rise ultimately to democracy. Liberalized current accounts, because they derive from underlying transactions in trade and services, might contribute to the social processes giving rise to democracy in ways similar to trade liberalization. These propositions, to my knowledge, have not been directly tested regarding international financial liberalization.

H₂: Sustained international current account liberalization leads to sustained democratization.

Democracy and Financial Liberalization: A Negative Relationship?

Scholars have proposed three mechanisms whereby democracy and international financial liberalization might have a *negative* relationship. The roots of these mechanisms were familiar to Greek political theorists, who feared the destructive mass psychology that sometimes developed in the *agora*.¹⁰ The “agora effects” I will consider are citizen responses to inequality, inconsistent democratic policies, and negative growth shocks.

Inequality, Taxation, and Capital Flight. Theorists in the social sciences have long been concerned that democratic choice is at odds with an international capitalist economy. See, for example, Lindblom 1977 and Dryzek 1996. (For a recent review and analysis, see Freeman, Hays, and Stix 2000.)

Part of the fear is rooted in inequality’s effects on open economy democracies. Capital account liberalization is robustly associated with subsequent increased income inequality (Quinn 1997). Dixon and Boswell 1996 found that foreign investment “penetration,” which follows from capital account liberalization, increases income inequality (cf. Firebaugh 1996).

¹⁰ Lit. “open space.” In later times, the agora became a market place in addition to a forum.

Increased income inequality, in turn, has deleterious effect on politics. Increased inequality increases political strife and violence (Muller and Seligson 1987), is associated with democratic collapse in some middle-income countries (Muller 1995; cf. Bollen and Jackman 1995), and decreases the “expected life” of democracies (Przeworski, Alvarez, Cheibub, and Limongi 1996).

A common strategy for ameliorating income inequality is redistributive taxation. International financial liberalization, however, hits the government’s ability to tax income from capital, a mobile resource, and to redistribute the income of the wealthy. In open-economy models, the optimal level of government taxation of both capital assets and corporations is zero. (See Gordon and MacKie-Mason 1995.) Hence, international financial liberalization in democracies might initiate a political economic process whereby income inequality increases, and citizens respond by demanding increased progressive taxation of the riches from liberalization. With capital account liberalization, however, the ability of a government to undertake this progressive taxation might diminish, and the increasing demands for distributive equity would be difficult to meet.

Time-Inconsistency and the Problem of Credibility. Voting models show that democracies are responsive to the interests of median voters of varying sorts. The interests of non-residents, the “other side” of international financial transactions, are not directly represented in domestic democratic processes. The absence of direct representation increases the likelihood that democratic legislators, responding primarily to organized domestic interests, will tax or seize non-resident assets.

Governments can assuage international investor fears by creating escape options for non-resident investors. Bartolini and Drazen 1997 model the problem of government credibility and investors, and show that a liberalization of outward capital restrictions is a signal to investors about the future intention of governments to adopt policies favorable to international investors. But, routine democratic processes allow voters to alter subsequently public policies, even those undertaken with the best of faith by prior governments, and thereby trap investor capital on-shore. The “time-inconsistency” problem, as it is called, is especially problematic for international investors when their investments are not delayable because any subsequent financial closure has the effect of making investments irreversible. (See Rivoli and Salorio 1996.)

The logic of “trapping” capital on-shore is not specific to democracies, however. Whenever it might be in the ruler’s economic interest to trap nonresident capital, the problem of time-inconsistent policies occurs. Indeed, the time-inconsistency problem has no evident solution in an autocratic state where reversal of policy is at the autocrat’s discretion. The time inconsistency problem is likely to be less of a problem in societies where a web of democratic and legal rights constrains the calculations of the ruler’s interests.

Economic Crisis and Democratic Collapse. A robust finding about democracies and economic performance is that poor economic performance damages democratic institutions. Germane to this study, international financial deregulation might be associated with democratic failure through two sources of economic crisis, financial sector bankruptcy and financial contagion.

1) Diaz-Alejandro 1985 was perhaps the first to propose the link between financial sector crises and financial liberalization. Reinhart and Kaminsky 1998 and Williamson and Mahar 1998 extend Diaz-Alejandro’s analysis, and report strong evidence that international financial liberalization is associated with subsequent banking crises, which have obvious negative implications for subsequent economic growth.

2) Capital account openness allows for the rapid transmission of international shocks to domestic economies. As was recently demonstrated by the 1997 East Asian “flu,” the financial crisis in Thailand spread to economies that were unconnected to the Thai economy, and which had good “fundamentals” in their macroeconomic policies. (See Eichengreen 1999.) The worldwide contagion, however, bypassed two nations in particular that maintain restrictions on their capital accounts – China and India. Hence, capital restrictions might allow for less electoral turbulence, and less stress on democratic institutions.

Summary Observations. Of the three mechanisms for a negative relationship between democratization and financial liberalization, the problem of increasing inequality must be judged of great importance. The time inconsistency problem, in contrast, is less likely to plague democracies relative to autocracies. As for economic crises, a strong finding in the literature has been that many types of regimes are imperiled by crises, but poor democracies are particularly at risk. Financial liberalization and democratization might be at odds therefore among emerging market democracies in particular.

H₃: A liberalized capital account increases the risk of democratic reversals.

GLOBAL PROCESSES

International political economic forces are likely to influence a given country's democratic processes, as well as its international financial regulatory policies. These include change in how widely held are normative values about democracy and autocracy, changes in beliefs regarding the desirability of restrictions on international financial transactions, and the international financial policies of leading economies.

World Democratization. Democratization and Autocratization appear to move in fads, at least in some emerging market settings. (See Przeworski, Alvarez, Cheibub and Limongi 1996 on contagion in democratization.) The global climate of opinion about the appropriateness of democratic or autocratic institutions might affect a country's propensity to one form of regime or another, and is a control variable.

Anti-Capitalistic Sentiment. Anti-capitalist sentiment was widespread in the interwar and immediate postwar periods. Many widely respected economists doubted the long-term viability of capitalism, particularly internationalized capitalism, as an economic system. (See especially Keynes 1933; Schumpeter 1942.) In addition, many theorists advocated that newly independent countries nationalize industries that had been owned by non-residents from "center" countries as a means of establishing economic independence.

An implication for the regulation of international financial transactions is that financial regulation is likely to be more restrictive as anti-capitalist sentiment is widespread. The effects of this sentiment should be distinguished from the effects of democracy. Democracies might reflect the sentiment of the times more clearly than do autocratic regimes, but the sentiment of the times and political arrangements are not identical.

H₄: Increasing anti-capitalist sentiment is associated with decreasing international financial openness.

International Financial Policies of Leading Economies. The degree of international financial openness of the world's leading economies might affect the international financial policies of other nations. The mechanisms of influence include: the demonstration effects of the results of their policies; the enhanced difficulties you encounter in trading with partners with a financial payments regime different from yours; the development of profit opportunities for economic agents in arbitraging differences in regulatory systems; and overt political pressure from the governments of the leading economies to permit their firms greater

economic freedoms in your country. My inference is that, once the leading economies deregulated more or less completely, other countries would come under increasing economic pressure to do the same.

H₅: Financial openness among leading economies leads to international financial liberalization.

METHODS, DATA, and MODELS

Methods.

The dependent variables in this investigation are *change* indicators of democracy, capital account liberalization, and current account liberalization. I use both structural and dynamic modeling strategies to examine these changes because one approach has strengths and weaknesses that are offset by the other. *Pooled, Cross-Section, Time-Series Models.* Pooled, cross-section, time-series (PCSTS) models are useful in evaluating the question of why, over time, some nations became more or less democratic, more or less financially open. That is, the variation in the dependent variables comes from both the time series and the cross-sections, and some pooling of data is necessary to address the questions.

I estimate PCSTS models using both annual data and five-year averaged data, with the five-year averaged data models having the advantage of capturing longer-run trends in the data. A disadvantage is that the five-year average overstates the strength of the relationship by “averaging out” the variability. That is, most of the yearly observations of the dependent variables are zero, so averaging them over a five-year period decreases the number of “no change” observations relative to the others. In contrast, the PCSTS models with annual observations have the advantage of using all the information available, but the explanatory power of the models is low (as year to year change is rare), and longer run trends in the dependent variables are not revealed.

The explicit assumptions in estimating PCSTS models include that the parameter estimates do not vary systematically by country grouping, and that the relationship between independent and dependent variables are not simultaneously determined. I test for parameter heterogeneity, and show some results in the appendix. The long lags periods used (of up to ten years) guard against simultaneity. The pooled equations are estimated by ordinary least squares using panel corrected standard errors, as suggested by Beck and Katz

1995.¹¹ All models are fixed effects models in which country dummy variables are used.¹² (The coefficient estimates of the country dummy variables are not reported, but are available from the author.)

I estimate all PCSTS models with the level of the dependent variable, lagged one period, entered as an independent variable: that is, $\Delta Y_t = f(Y_{t-1}, X_1 \dots X_K)$. The inclusion of Y_{t-1} has the effect of representing the “state of the world” in the period prior to that studied. I assume that past levels of the dependent variable influence the likelihood of change. I also employ Y_{t-1} to control for unobservable forces, such as changes in ideas or technology, which affect political and economic liberalization, but which cannot be measured. Because the data for many countries show a smooth evolution over time, econometric considerations (e.g., first order serial correlation) also lead me to include Y_{t-1} . The coefficient estimates of the lagged level of the dependent variable should be negative, as the underlying dependent variables have upper bounds. That is, an economy without financial restrictions cannot have fewer restrictions, e.g., such that an increase in the value of ΔY becomes progressively less likely as Y_{t-1} reach the upper limit of the scale, and vice versa.

Robustness Checks. A standard concern in political economic research is how robust the reported results are. I test for robustness in several ways. First, I estimate four versions of each model. Using annual observations, I estimate two with the longest periods of time (using annual and five-year averaged data), and two others with the most number of countries (using annual and five-year averaged data). I then compare the estimates of the key coefficients, and focus on common results. Second, I test for parameter heterogeneity between advanced industrial and emerging market nations, and report in Appendix Table A3 the results of interactions between the key independent variables and a dummy variable for emerging market nations. Third, I use a version of Edward Leamer’s Extreme Bounds Analysis (EBA) as implemented by Levine and Renelt 1992. I alter the conditioning information in models by adding different variables to the analysis, and report how the coefficient estimates and standard errors of the key independent variables are affected by these changes. These results are reported in Appendix Table A4.

¹¹ All PCSTS estimations use the POOL command with HETCOV option in the updated version of *Shazam* 8.0.

¹² An alternative is to use random effects models. These data are not, however, from a random sample, but are the universe of that which is available. For discussions, see Hsiao 1986, chapter 4, and Pesaran, Shin, and Smith 1998, 4.

Vector Autoregressive Models. A limitation of the PCSTS models is that the shorter-term dynamic relationships among democracy, capital and current account liberalization cannot be estimated. Vector Autoregressive Models (VAR), in contrast, are especially useful for examining possible feedback effects, and for examining relationships where strong theories yield contradictory empirical predictions. (See Freeman, Houser, Kellstedt, and Williams 1998.)

In the case of 42 countries, there is enough variation in the indicators of democracy, capital account regulation, and current account regulation to estimate a model with feedback effects. The other countries have constant levels for at least one of these variables over time, so there is not enough information to fit a time-series model. The great majority of the 42 countries fit the rubric, “emerging market.”

I report impulse response functions from the VAR models because these show how a change in one variable is followed by changes to other variables, controlling for the effects of all other variables in the model. I do not report VAR coefficient estimates because they do not have a direct interpretation. A one-time, one-unit change in an independent variable affects other variables. It is the cumulative impact of that one-time, one-unit change that is of interest, and which is represented in the impulse response functions.

Impulse response functions are graphs that show how a one-unit *change* in an independent variable affects *change* in a dependent variable, controlling for all other relationships, including simultaneous ones, in the models. Statistical significance is represented by confidence intervals or bounds. If the confidence intervals surrounding the estimated relationships do not include zero, the estimated relationship is statistically significant. The bounds are presented in the graphs (using plus or minus two standard deviations).¹³ The periods are contemporaneous to seven year from the innovation.

The VAR models for these 42 countries are estimated separately because a technology does not currently exist for generating impulse response functions with boundaries from pooled, time-series, cross-sectional VARs. (For a recent review of dynamic panel models and methods, see Phillips and Moon 1999.)

¹³ The Monte Carlo standard errors were computed in Eviews 3.1 using 10,000 repetitions. Each repetition draws a random sample from the asymptotic distribution of the VAR coefficients from which the impulse response functions are computed. The standard errors are the standard deviations of the simulated responses across the 10,000 repetitions.

Data.

International Financial Regulation. I operationalize international financial regulation through two indicators of change in international financial openness or closure, which are described in Quinn 1997. *CAPITAL* and *CURRENT* are the main components of *OPENNESS* created from the text of an annual volume published by the International Monetary Fund (IMF), *Exchange Arrangements and Exchange Restrictions*. This IMF text reports on the laws governments use to govern international financial transactions. The measure is available from 1950 to 1997 for 58 countries, and for a shorter period for an additional nine.

One indicator, *DCAP*, represents change in capital account openness. *CAPITAL* is scored on a 0-4, half-integer scale, with 4 representing a fully open economy. Another indicator is *DCUR*, which represents change in current account openness. *CURRENT* is scored on a 0-8 half-integer scale that represents the sum of the two components of current account scores: for trade (exports and imports) and invisibles (payments and receipts for financial and other services). *DCAP* and *DCUR* are used as dependent variables, and are calculated in change terms as $DCAP_t = ((\frac{1}{4} (CAPITAL_t - CAPITAL_{t-1})) * 100)$ and $DCUR_t = ((CURRENT_t - CURRENT_{t-1})) * 100$.

Change in *CURRENT* is relatively common, with 25% of the annual observations being non-zero. Most changes are small. Sixteen percent of the change observations of *CAPITAL* are non-zero, with most change again being incremental. (See Appendix Figure A1 for a representation of the dependent variables.)

When using *CAPITAL* and *CURRENT* as independent variables, I need operationalizations that will allow me to summarize the potential influences of changes and levels in these variables over many years.

Because I am uncertain *a priori* of the timing and duration of effects, I use five-year averages of the change

variables, which are calculated as $DCAP5_t = (DCAP_{t-1} + DCAP_{t-2} + DCAP_{t-3} + DCAP_{t-4} + DCAP_{t-5})$, and

similarly for $DCUR5_t$. To represent the influence of past levels, I use five year averages of the levels of lags

six through ten, calculated as $CAPTEN_t = (CAPITAL_{t-6} + CAPITAL_{t-7} + CAPITAL_{t-8} + CAPITAL_{t-9} +$

$CAPITAL_{t-10})$, and similarly for $CURTEN_t$.

To capture the influence of international financial regulation in the leading five economies on other economies, I use a five-year lagged level of the mean value of the relevant financial regulatory indicator for the U.S., the U.K, Germany, France, and Japan: *FiveCap5_t*, *FiveCur5_t*, or *FiveOpen5_t*, as appropriate. *Democracy*. For the purposes of the project, I use the “Democracy” plus “Autocracy” indicators from the Polity 98 data set, which report data from 1800 to 1998 for the countries used in this investigation.¹⁴ See Gurr and Jagers 2000. Autocracy is scored on a –10 to 0 scale, Democracy is scored on a 0 to 10 scale, and both are summed to produce the main political indicator of this investigation, *DEMOCRACY*. (This indicator is also used the World Bank 1997, 112.) Missing data are interpolated linearly.

DDEM_t is percentage change in the index of the democracy indicator, and is a dependent variable. The possible range is –100 to 100. Yearly changes in political institutions are comparatively rare; approximately nine percent of the observations are non-zero. (See Appendix Figure A1.) Of types of changes, an upward change is twice as common as a downward. Of increases in democratization, small change predominates. Of downward changes, large and small values are equally common.

I use the levels of the index, or *DEMOCRACY*, as an explanatory variable for financial regulation. As with the financial regulation indicators, I create change measure as follows: $DDEM5_t = (DDEM_{t-1} + DDEM_{t-2} + DDEM_{t-3} + DDEM_{t-4} + DDEM_{t-5})$. To represent the influence of past levels, I use a moving average levels: $DEM_{TEN}_t = (DEMOCRACY_{t-6} + DEMOCRACY_{t-7} + DEMOCRACY_{t-8} + DEMOCRACY_{t-9} + DEMOCRACY_{t-10})$.

The use of an interval change measure of democracy (compared to 0,1 level measures) as a dependent variable has an important advantage. I am able to treat change in democracy as a having both

¹⁴ An alternative approach is to use the Freedom House (or Gastil) indicators of democracy, as used in Burkhart and Lewis-Beck 1994. (See Bollen 1993 and Burkhart 1997 for comparisons of these two, highly correlated, measures.) The Gastil indicators begin in 1972, however, and their use would thereby limit the range of estimation. In one case where the financial liberalization data prior to 1972 are anyway unavailable, that of the People’s Republic of China, I do use the Gastil scales, and report below estimates of a Vector Autoregressive model for China, 1972-1997.

evolutionary and discontinuous properties, which matches our observations of historical processes. (See Elkins 2000 for a discussion of the advantages of graded democracy scales over dichotomous measures.) The measure enables me, for example, to examine the gradual deepening of authoritarianism in Indonesia, the gradual democratization of Korea, as well as the dramatic changes in Spain and Chile.

Economic Data. The economic and demographic data used in estimating annual models are generally taken from the Penn World Tables, Mark 5.6 (Heston, Summers, Nuxoll, and Aten 1995). The PWT data have the advantage of representing economic events from 1950/1960, but are unavailable past 1992, and in some cases, 1990 or 1991. The economic data for five-year models are taken from Beck, Levine, and Loaza 1999. In the single country VAR models, I use economic growth data (per capita, ppp adjusted) from Maddison 1995 for 23 countries 1950-1994, and from the World Bank 1999 for another nineteen, 1961-1997 (1985 ppp-adjusted, per capita \$). I use whichever series contain the most observations for a given country.

Measures of Anti-Capitalist Sentiment. To represent anti-capitalist sentiment, I need an indicator of popular sentiment over time. Communist parties have unrelentingly opposed internationalized capital flows, and Soviet Bloc regimes (not considered here) tightly restricted financial transactions. I use a five-year average measure of the popular vote totals for the Communist Parties of France, Great Britain, Italy, Japan, and the United States, which are taken from Mackie and Rose 1991, supplemented by *Keesings' Contemporary Archives*, or $CPVote5_t$.

Let me note that I extract the information about the home country's level of democracy for the countries in the investigation such that:

$$WD_t^{(i)} = WorldDemocracy_t^{(i)} = \sum_{j=1}^{i-1} Democracy_{i,t} + \sum_{j=i+1}^n Democracy_{i,t};$$

where i represents the country of interest. After this, the five-year lagged average of world democracy is:

$$WD5_t^{(i)} = \frac{1}{5} \left(WD_{t-1}^{(i)} + WD_{t-2}^{(i)} + WD_{t-3}^{(i)} + WD_{t-4}^{(i)} + WD_{t-5}^{(i)} \right)$$

In estimating international financial liberalization models, I also include $CPVote5_t$, and $FiveCap5_t$ or $FiveCur5_t$, depending on the model estimated.

Models.

PCSTS Models. I use a panel variant of the standard Barro 1991 economic growth model. The base model includes per capita income (ppp adjusted), investment (as a share of GDP), annual rates of population growth,¹⁵ and trade openness (imports + exports as a percentage of gross domestic product). The level of income and investment are logged for standard econometric reasons. These economic and demographic variables are important control variables.

The annual PCSTS models I estimate are as follows:

$$\begin{aligned}
 \mathbf{DDEM}_{i,t} = & \beta_0 + \beta_1 \mathbf{DEMOCRACY}_{i,t-1} + \beta_2 (\mathbf{WD5}_t^{(i)}) & \text{[eq. 1]} \\
 & + \beta_3 (\mathbf{DCAP5}_{i,t}) + \beta_4 (\mathbf{CAPTEN}_{i,t}) + \beta_5 (\mathbf{DCUR5}_{i,t}) + \beta_6 (\mathbf{CURTEN}_{i,t}) \\
 & + \beta_6 (\mathbf{Economic Growth}_{i,t-1}) + \beta_7 \mathbf{Log}(\mathbf{Income}_{i,t-1}) + \beta_8 \mathbf{Log}(\mathbf{Investment}_{i,t-1}) \\
 & + \beta_9 (\mathbf{Population Growth}_{i,t-1}) + \beta_{10} (\mathbf{Trade Openness}_{i,t-1}) + \beta_{11,12,\dots} (\mathbf{Country Dummies}, n-1) + \varepsilon_{i,t} \\
 & i=1,2,\dots,45; t=1960,1961,\dots,1990. \text{ Or } i=1,2,\dots,55; t=1970,1971,\dots,1990. \text{ Or }
 \end{aligned}$$

$$\begin{aligned}
 \mathbf{DCAP}_{i,t} = & \beta_0 + \beta_1 \mathbf{CAPITAL}_{i,t-1} + \beta_2 (\mathbf{FiveCap5}) + \beta_3 (\mathbf{CPVote5}_t) \\
 & + \beta_4 (\mathbf{DDEM5}_{i,t}) + \beta_5 (\mathbf{DEMTEN}_{i,t}) & \text{[eq. 2]} \\
 & + \beta_6 (\mathbf{Economic Growth}_{i,t-1}) + \beta_7 \mathbf{Log}(\mathbf{Income}_{i,t-1}) + \beta_8 \mathbf{Log}(\mathbf{Investment}_{i,t-1}) \\
 & + \beta_9 (\mathbf{Population Growth}_{i,t-1}) + \beta_{10} (\mathbf{Trade Openness}_{i,t-1}) + \beta_{11, 12,\dots} (\mathbf{Country Dummies}, n-1) + \varepsilon_{i,t} \\
 & i=1,2,\dots,40; t=1955,1956,\dots,1990. \text{ Or } i=1,2,\dots,55; t=1970,1971,\dots,1990. \text{ Or }
 \end{aligned}$$

$$\begin{aligned}
 \mathbf{DCUR}_{i,t} = & \beta_0 + \beta_1 \mathbf{CURRENT}_{i,t-1} + \beta_2 (\mathbf{FiveCur5}) + \beta_3 (\mathbf{CPVote5}_t) \\
 & + \beta_4 (\mathbf{DDEM5}_{i,t}) + \beta_5 (\mathbf{DEMTEN}_{i,t}) & \text{[eq. 3]} \\
 & + \beta_6 (\mathbf{Economic Growth}_{i,t-1}) + \beta_7 \mathbf{Log}(\mathbf{Income}_{i,t-1}) + \beta_8 \mathbf{Log}(\mathbf{Investment}_{i,t-1}) \\
 & + \beta_9 (\mathbf{Population Growth}_{i,t-1}) + \beta_{10} (\mathbf{Trade Openness}_{i,t-1}) + \beta_{11, 12,\dots} (\mathbf{Country Dummies}, n-1) + \varepsilon_{i,t} \\
 & i=1,2,\dots,39; t=1955,1956,\dots,1990. \text{ Or } i=1,2,\dots,56; t=1970,1971,\dots,1990.
 \end{aligned}$$

¹⁵ Population growth is used here as a measure of socio-economic development, though it has also been used as an indicator of labor supply. Education variables are added to the models used in the robustness tests.

The five-year non-overlapping models employ the same variables, but the timing and samples differ. For the models with most time, $i=1,2,\dots,42$ and $s=1, 2, \dots,7$ where the index s represents five year intervals, starting at 1961-5 and continuing to 1991-5. For the models with the most countries, $i=1,2,\dots,53$ and $s=1, 2, \dots,5$ where the index s represents five year intervals, starting at 1971-5 and continuing to 1991-5. This means, e.g., that $DDEM_{i,s}$ (or change in democracy) for the 1991-1995 period is examined using various data from the 1981-90 or 1971-90 periods.

Note that I am reducing the likelihood that the coefficient estimates of the independent variables will be spuriously statistically significant by using fixed-effect models with lagged levels of the dependent variable and lagged averages of the key independent variables. Let me also note that the correlation between *Capital* and *Current* is very high (ranging between .83 and .85), which introduces the possibility of an upward bias in the estimates of the standard errors when both are in a model.

VAR Models. The vector autoregressive (VAR) model for each country takes the form:

$$Y_t = \alpha_1 Y_{t-1} + \dots + \alpha_p Y_{t-p} + \beta X_t + C + \varepsilon_t \quad [\text{eq. 4}]$$

$$t = 1, 2, \dots, T$$

where Y_t represents the block of variables of interest, $Y_t' = (Y_{1t}, \dots, Y_{kt})$, X_t represents a vector of exogenous variables, and C is a $K \times 1$ vector of intercepts. The Y variables are economic growth, democracy, capital account regulation, and current account regulation (in that order). The ordering matters because the contemporaneous response of one variable to another is assigned to a variable based upon its place in the ordering. The exogenous X_t variables are $WD5_t^{(i)}$, $FiveOpen_{t-1}$, which is the sum of $FiveCap_{t-1}$, and $FiveCur_{t-1}$, and $CPVote5_t$.

The order p for the Y vector is determined using a model that minimizes the Akaike Information Criteria (AIC), conditional on the absence of serially correlated residuals. The process constrains some lags to be zero. In the case of Argentina, for example, the final model that minimized the AIC, and in which I

found no evidence of serially correlated residuals, contained lags 1, 2, 6, and 7 of economic growth, democracy, capital account openness, and current account openness, plus X_t .

A concern in estimating the relationships is whether the variables exhibit nonstationary behavior. In such a case, the VAR model might have unit roots, and VAR models with unit roots have problematic econometric properties. (See Phillips 1998 and authors forthcoming for discussions.)

The economic growth measures are differences of income, and do not contain unit roots. The democracy, capital account, and current account indicators are scale measures with upper and lower bounds, and cannot normally be considered to be non-stationary. Even so, I tested for unit roots in each of the series using Augmented Dickey-Fuller tests following Enders 1995. The series of the indicators of world democracy, financial liberalization of the leading economies, and the vote share of leading Communist parties do not appear to contain unit roots.¹⁶

Summarizing the VAR results. Each of the 42 country graphs yields 16 separate figures. To summarize the VAR results, I report a table showing in each case which key relationships were statistically significant, and in which direction. A summary of the general VAR results is offered at the bottom of Table 4.

Limitations. The VAR analysis has some important limitations. The first is the possibility of selection bias in the summarized results. As a practical matter, seventeen OECD countries have little to no change in their democracy indicators. The summary analysis, therefore, omits countries that were constantly democratic and which liberalized finance.

A second limitation is that the single-country VAR modeling strategy requires the omission of some variables that might be influential. The longest series available is 1950-1994, which gives 45 observations. As is evident above in the model for Argentina, on each equation I am estimating twenty parameters with 38 observations (once adjusting for end points). Adding more variables to the analysis is not feasible. The

¹⁶ The Augmented Dickey-Fuller tests for the indicators of financial openness for the leading economies and of world democracy reject the presence of a unit root at beyond the .05 level (with 10 lags, a statistically significant trend and intercept, and 8 lags and a statistically significant constant, respectively). The ADF test rejects the presence of a unit root in CPVotes (with 0 lags, no trend, and no intercept) at the .1 level.

possible omitted variable bias is at least partly offset by the inclusion of past lags of each of the dependent variables, which proxy for omitted forces.

Appendix Table A1 lists the countries used in the analyses. Table A2 describes the variables.

RESULTS

Pooled, Cross-Section, Time-Series Models.

Change in Democracy. Table 1 contains the results for change in democracy, or *DDEM*. Models 1a and 1c report the results for the longest time period for annual and five-year data. Models 1b and 1d report the results for the most countries. The annual observation models account for between 10 and 13% of the variance in year-to-year change in democracy, and the five-year averaged models account for between 32 and 39% of the variance. The estimates of ρ show no sign of serial correlation.

[Table 1 about here]

The results of models 1a, 1b, 1c and 1d show that the coefficient estimates of CAPTEN are statistically significant and negative at beyond the .05 level. Change in the capital account index, *DCAP5*, had a statistically significant negative coefficient in model 1c (most time, five-year data), but not in the other models. For the current account indicators, the estimated coefficients were statistically insignificant. It appears that capital account liberalization is associated, long run, with reversals of democratization. Current account liberalization does not have that effect.

A basic question is whether the parameter estimates exhibit heterogeneity across sub-groupings of countries. In Appendix table A3, I report partial results from annual models with interaction terms for the four financial regulation variables and a dummy variable for emerging market nations, defined as non-OECD members (e.g., $E^*CAPTEN$). The evidence for parameter heterogeneity is mixed. It appears that only the coefficient estimates for CAPTEN, which are always negative and larger than their standard errors regardless of the models and sample, are consistent across the country groupings. CAPTEN's estimated effect in emerging market nations is very strong.

How robust are the results from table 1 to changes in the conditioning information? In Appendix table A4, EBA results using data from models 1a and 1b are reported for the only systematically significant variable, CAPTEN, from Table 1. These results are highly robust across samples and models.

Longer term, the levels of capital account liberalization are robustly associated with subsequent decreases in democracy. This effect is found in spite of the inclusion in the sample of seventeen OECD member nations that experienced no decreases in democratization and which liberalized capital. (To omit these nations would be to induce sample selection bias.) The lagged timing of the effects, six to ten years later in the case of models 1a and 1b, and six to fifteen years later in the case of models 1c and 1d, militates against endogeneity in the relationship.

The indicator of World Democracy had statistically significant and positive coefficient estimates in all four models from Table 1, and the lagged level of each country's democracy index had a negative and statistically significant coefficient estimate in all models. No other variable had coefficient estimates that were statistically significant in all four models. Neither the level of income nor economic growth (lagged at any period) appears to have influenced democratization. Investment's coefficient is negative and statistically significant at the .1 level or better in three models. In the samples and models used here, economic variables were not central to democratization.

Change in Capital Account Regulation. Table 2 reports the results where change in capital account regulation is the dependent variable, or *DCAP*. Models 2a and 2c report the results for *DCAP* for the longest time period, and models 2b and 2d report models for most countries. The year-to-year models, 2a and 2b, account for between 12 and 19% of the variance in capital account regulation, and the five-year models, 2c and 2d, account for 52 and 61% of variance. The estimates of ρ show no sign of serial correlation.

[Table 2 about here]

For year-to-year capital account liberalization, the coefficient estimates of change in democracy (*DDDEM5*) and past levels of democracy (*DEMTEN*) are statistically significant and positive. Broadly speaking, the coefficient estimates do not differ across the emerging market and advanced industrial nations,

though the estimated effects of DEMTEN are stronger in the OECD sample. (That sample includes Greece, Spain, and Portugal.) These results are robust to changes in conditioning information.

In the models with five-year averaged data, the past levels of democracy (DEMTEN) are statistically significant and positive at the .05 level in model 2c and at the .06 level in model 2d. The coefficient estimates of change in democracy (*DDEM5*) were not statistically significant, though note that the timing of the lags of *DDEM5* differs between the two sets of models: one to six years later in the annual models versus one to ten years later in the five-year average models.

In accounting for capital account liberalization, other variables have robust, statistically significant coefficient estimates. The degree of financial openness of the leading economies is positively associated with subsequent capital liberalization in models 2b, 2c, and 2d. The coefficient estimate for vote share received by leading Communist Parties is statistically significant and negative in all four models. This is as expected, and suggests that anti-capitalist sentiment is an important determinant of financial openness. The degree of a nation's trade openness is positively correlated with capital account liberalization in three of four models. In the five-year average data models, economic growth is positively correlated with subsequent capital account liberalization. The estimates of the other economic variables are otherwise not consistent across the models. *Change in Current Account Regulation.* The models in Table 3 report the results where *DCUR* is the dependent variable. Models 3a and 3b account for between 12 and 15% of the year-to-year variance, and models 3c and 3d account for 48 and 55% of the variance in the five-year average data. None of the models show signs of serial correlation.

[Table 3 about here]

The coefficient estimates of change in democracy (*DDEM5*) and past levels of democracy (DEMTEN) are statistically significant and positive in some, but not all, models. For *DDEM5*, statistically significant and positive coefficients (at the .1 level) are found in the year-to-year models (3a and 3b), but not in either of the models with the five-year averaged data. The coefficient estimates for the emerging market interaction terms are at the threshold of statistical significance in several cases, but I cannot reject the hypothesis that the coefficient estimates are the same across the models. (See Appendix table A3.) While

the likelihood is that some positive relationship exists between democracy and subsequent short-term current account liberalization, *DDEM5* does not have a robust relationship with current account liberalization.

In the case of *DEMTEN*, its coefficient estimate is statistically significant (and positive) at beyond the .05 in only one model (3c) and at the .1 level in another (3a), the models with most time. Its coefficient is not significant in the models with most countries.

Of the other variables, the coefficient estimates for the vote share for the leading Communist Parties are negative and statistically significant in three models, and trade had statistically significant and positive coefficients in all four models, results that are similar to those found for the capital account models. The indicator of the financial regulatory policies of the leading economies was positively and statistically significantly associated with increasing current account liberalization in some, but not all models. The other social and economic variables had inconsistent results.

The main PCSTS results are easily summarized. The levels of capital account liberalization led, six to fifteen years later, to decreases in democracy. Short-term democratization and high levels of long-term democracy led to capital account liberalization. This finding implies a perverse dynamic in the democracy and international liberalization relationship. Some democratic countries that liberalized their capital accounts subsequently fell back toward autocracy.

Global forces influence domestic liberalizations. The levels of world democracy influenced domestic democratization positively and always statistically significantly, suggesting that global democratization matters for domestic political liberties. Increasing anticapitalist sentiment worldwide is associated with subsequent financial closure, and openness among the leading economies is associated with subsequent openness in capital and current accounts.

Vector Autoregressive Models.

The VAR models allow for analysis of the short-term dynamics of these relationships. It may well be that the relationships among the changes in democratization and financial liberalization have feedback relationships not captured by the PCSTS models, and that some true relationships are thereby obscured in the PCSTS models. VAR models control for these effects.

The 42 country VAR results are summarized in Table 4.¹⁷ The nations are grouped by regions, and ranked within regions by the level of their inequality indicators in the earliest years available (GINI coefficients from Deninger and Squire 1996). I report the results for six of the 16 possible relationships in the model: $DGDP \rightarrow DDEM$; $DDEM \rightarrow DGDP$; $DDEM \rightarrow DCAP$; $DDEM \rightarrow DCUR$; $DCAP \rightarrow DDEM$; and $DCUR \rightarrow DDEM$. When an impulse response function is statistically significant, the sign (+,-) and period of the sign (i.e., the number of periods out in time) are reported. When a relationship is not statistically significant, “ns” is entered in the table. I offer no interpretation of statistically significant contemporaneous relationships because the causal direction cannot be determined, and these are noted in parentheses.

[Table 4 about here]

The summarized results for $DCAP \rightarrow DDEM$ are at the bottom of column 5, and these are bloody. In sixteen cases, increasing (decreasing) capital account liberalization led to subsequent decreases (increases) in democratization. In six cases, however, capital account liberalization led to increasing democracy. In one case, Morocco, the initial response was positive, but the longer-term one was negative.

When I examined the countries for which capital account liberalization had a positive effect on democracy, I found East Asian countries over-represented: Burma, the Philippines, and Thailand. Argentina, Ghana, and Uruguay are the others, and each had low levels of initial inequality compared to other countries in their regions. In the cases where capital account liberalization (restrictions) had deleterious (positive) effects on democracy, ten Latin American countries are on the list: Bolivia, Brazil, Chile, Colombia, Ecuador, Guatemala, Honduras, Nicaragua, Panama, and Venezuela. The degree of democracy in the political institutions of France, Greece, and Spain also show an inverse link to prior capital account liberalization. (Indonesia, Iraq, and Tunisia round out the list.)

The $DCUR \rightarrow DDEM$ results are summarized at the bottom of column six. In nineteen cases, when countries liberalized (restricted) their current account transactions, democratization subsequently increased

¹⁷ In early drafts of the paper, I used Polity III data. The revised Polity 98 data recently became available. In many instances, revisions to the Polity data base led to substantial changes in the country by country VAR results, though the overall summarized results and the PCSTS results were little changed.

(decreased). The countries for which this is true span the world. They are East and Southeast Asian (Burma, China, Korea, Malaysia, the Philippines, Singapore), have large Islamic populations (Ghana, Iran, Jordan, Morocco), are European (France, Greece, Portugal), and are Latin American (Bolivia, Chile, Colombia, the Dominican Republic, Mexico, Panama, Peru). In four cases, three in Latin America, the liberalization (restriction) of current account transactions was followed by decreasing (increasing) democratization: Honduras, Nicaragua, Salvador, and Sri Lanka. Brazil shows a positive response of democracy to current account liberalization at lag one, but a negative response at lag 3.

The summarized results for $DDEM \rightarrow DCAP$ are at the bottom of column 3 in table 4. In seventeen countries, a positive (negative) change in democratization led to increasingly (decreasingly) liberal capital accounts. In one country, Pakistan, democratization led to decreasing openness. These results are far sharper than the related PCSTS results for $DDEM5 \rightarrow DCAP$, showing the importance of feedback effects.

The summarized results for $DDEM \rightarrow DCUR$ are at the bottom of column 4. In fifteen countries, a positive (negative) change in democratization led to increasingly (decreasingly) liberal financial rules for current accounts. In five countries, democratization (autocratization) led to decreasing (increasing) openness.

When I examine the VAR results for evidence of reinforcing negative or positive feedback relationship, I found eight countries exhibiting a positive reinforcing dynamic relationship between current account liberalization and democratization: Burma, China, the Dominican Republic, Greece, Malaysia, Peru, the Philippines, Portugal. Perhaps those who favor democracy should welcome China's accession to the World Trade Organization? Two countries exhibited a reinforcing dynamic between capital account liberalization and democracy: Burma and the Philippines. The Burma relationship is actually a positive reinforcing relationship between deepening autocracy and increasing financial closure.

The results in Table 4 show evidence of some perverse cycles. Brazil is particularly characterized by a perverse dynamic whereby democratization leads to liberalization, but liberalization leads to autocracy. Now-democratic Brazil, perhaps not surprisingly in this light, continues to maintain relatively strong restrictions on capital account transactions (IMFa 1999). Nicaragua on current accounts, and Colombia,

Greece, Iraq, Nicaragua, and Venezuela on capital accounts, are also characterized by the perverse dynamic of democratization leading to liberalization, but liberalization leading to autocracy. Only in Mexico does democratization led to current account closure, but current account openness led to democracy.

Several facets of the VAR investigation jump out. For one, countries with the very highest levels of income inequality in the initial years of this investigation (as measured by Deninger and Squires 1996) are countries where financial liberalization proved to be more problematic for democracies. Note, in particular, the experiences of Brazil, Chile, Colombia, Guatemala, Honduras, Iraq, Nicaragua, Panama, and Salvador, each with GINI indices of .45-.6. In contrast, countries with more moderate levels of income inequality were those in which capital account liberalization was more likely to have promoted democratization. For another, financial liberalization proved to be especially problematic for democratization in Latin American.

The relationship between economic growth and democracy is not the main focus of the investigation, but Table 4 also summarizes the results of these models. In seventeen of 42 cases, change in growth led to change in the degree of a nation's democratization. The direction was not consistent, with increasing (decreasing) growth leading in nine cases to more (less) democratic regimes, and in five cases, decreasing (increasing) growth leading to increasing (decreasing) democratization. Decreasing growth appears to be a risk factor for regimes, a finding that accords with Przeworski and Lemongi 1997. Democratization, in turn, had inconsistent effects on subsequent growth, with five countries experiencing decreased growth from democratization, and five experiencing increased growth.

CONCLUSION

I proposed that democratization and international financial liberalization are legal rights that are characterized worldwide by a relationship grounded in the logic of liberal democratization. My expectation was that democracies, compared to autocracies, would therefore liberalize finance, especially capital accounts. The results of both the pooled, cross-section time-series models and the summarized VAR models show that democracies are indeed liberalizers.

I further proposed that capital account liberalization is a risk factor to democracies. The results from the PCSTS models showed the higher levels of capital account openness were indeed robustly

associated with decreasing democratization many years later. The VAR models showed that for some countries, particularly those with higher levels of income inequality, capital account liberalization led to subsequent de-democratization.

Current account openness and liberalization, in turn, appear to offer fewer risks of democratic reversal. In the VAR models, current account liberalization was associated in twenty cases with increasing democratization, and eight countries showed positive reinforcing dynamic relationships between democratization and current account liberalization.

The passion felt by many in the international financial community for full liberalization of the capital accounts cooled in the aftermath of the East Asian financial crisis of 1997-99. Looking longer term at history, the economics of currency crises might be the least of the worries citizens of emerging market nations should have about the full liberalization of their nation's capital account.

Let me conclude with one observation, one speculation, and one hope. The observation: if international financial liberalization is desirable from the perspective of international financial institutions and the governments of the leading economies, the surest routes to sustained liberalization is enabling sustained democratization. The speculation: if rapid capital account liberalization destabilizes some proportion of democratic regimes, we should expect some democratic reversals in the early 2000s among those nations that liberalized their capital accounts in the early to mid-1990s. Because of the past record of autocratic nations in restricting financial flows, a reverse wave of democratization implies a subsequent reverse wave of financial repression. The hope: may history not repeat itself.

