Political Instability: Its Effects on Financial Development, Its Roots in the Severity of Economic Inequality

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Abstract

Political instability impedes financial development and is a primary determinant of differences in financial development around the world. Four conventional measures of national political instability — Alesina and Perotti's (1996) well-known index of instability, a subsequent index derived from Banks' (2005) work, and two indices of managerial perceptions of nation-by-nation political instability — persistently predict a wide range of national financial development outcomes for recent decades. These results are robust to other factors prominent in the literature in the past decade and hold for a range of key financial outcomes for data over all available years and all available countries over several decades. Political instability's significance is time consistent back to the 1960's, the period when the key data becomes available, robust in both country fixed-effects and instrumental variable regressions, and consistent across multiple measures of instability and of financial development. Overall, the results indicate the existence of an important channel running from political instability, principally in nondemocratic settings, to financial backwardness. The robust significance of that channel extends existing work demonstrating the importance of political economy explanations for financial development and financial backwardness. It should help to better understand what policies will work for financial development, because political instability has causes, cures, and effects quite distinct from those of many of the key institutions most studied in the past decade as explaining financial backwardness.

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INTRODUCTION

Financial development is now widely seen as necessary or useful to propel economic growth, to create wealth, and to develop a nation (Levine (1997); King and Levine (1993); Sylla et al. (1999); Rajan and Zingales (1998, 2003, 2003b); Mishkin (2006: 25)). This view has become conventional wisdom and has induced international agencies and development officials to bolster financial markets by strengthening their supporting institutions, particularly via institutions of investor protection, in the hope that economic development will quickly follow, as the World Bank's (2006) report reflects.

Despite efforts to develop finance and its associated institutions, financial development around the world has been uneven, with prominent explanations for its variation tied to a nation's corporate and securities law institutions, its legal origin, its trade openness, and its legacy of colonial endowments. Other factors could also explain differences in financial development. Findings in adjacent disciplines suggest that political instability strongly affects overall economic development. Perhaps it affects financial development as well and does so independently of its effect on overall economic development.

Hence, there is reason to search for other important determinants of, and impediments to, financial development. We do so here, finding that a nation's political stability should be added to our understanding of the key determinants of modern financial development. The first political instability indicator used here is derived not from the advanced nations' shifting coalitions, Arrow-type policy cycling, or swings in elections, governments, or policy, but instead derives from the severe, sharp disorder that nations, usually less developed nondemocratic ones, suffer via military coups, irregular changes in government, and political violence. The second derives from indicators of government crisis. The third and fourth are constructed from managerial perceptions of national political instability. Such instability quite plausibly impedes a nation from building institutions, such as investor protection, that support finance or undermines such institutions' effectiveness even if built. Severe instability such as that measured by the first two indices has been frequent in the past four decades. Cross-country variation in the severity of political disorder powerfully explains much of the variation in financial outcomes around the world in the past forty years. It is robust to prevailing explanations, some of which persist as significant and some of which do not.

A widespread view in the law and finance literature, a view to which we subscribe, sees investor protection institutions to be critical to financial development, as the text and citations below show. E,g., La Porta et al. (1998); Dyck and Zingales (2004). But what induces one nation to build adequate investor protection institutions and another not to? Much current thinking in finance looks to a combination of legal origin, trade openness, colonial conditions, and the related and resultant institutions, as the important channels to investor protection. (We discuss this literature below.) Partly as a result of these influential views, the policy advice the World Bank and others give to developing countries focuses foremost on the institutions among these causal factors that can be altered quickly, such as investor protection rules and corporate codes of conduct (World Bank (2006)). Investor protection in this literature is seen as being an institutional choice, one implemented via courts, rules, and regulators.

We add to this work. Primary institutions of investor protection, such as courts, legal rules, and regulators, cannot function well in unstable political environments and this inability may be a critical channel connecting political instability to financial backwardness. A country's capacity and willingness to build and maintain investor protection, as well as other property protection, institutions depend largely on its relative political stability. Unstable polities cannot, or will not, reliably protect investors. This channel to financial backwardness leads back to more. When we observe that a dominant root of political instability uncovered in the political economy literature in weak democracies is the severity of economic inequality, we unearth a deeper explanation for a polity's incapacity and unwillingness to protect investors, one that becomes clear as the pieces are placed next to one another: when inequality is severe, investor protection protects favored strata in those unstable nations. But protecting those favored strata is something an unstable polity mired in severe inequality cannot do easily. We present strong evidence for this political economy characteristic being a major channel explaining financial backwardness, one that could explain why some nations cannot, or will not, build the needed institutions and why they work badly in some nations even when built.

If separate channels run through or from political instability and exercise a first-order impact on financial development, then differently prioritized policy considerations could come into play. If *other* sources of political instability are *not* associated with the currently-prominent channels, such as building up investor protection (or pulling down trade barriers), then further protecting investors (or further opening up trade) could fail to sufficiently foster finance. Although they are policies that could improve economic conditions, in an unstable polity they could fail to have their intended effect. Such efforts could fail because the independently unstable polity could undo whatever benefits better investor protection provided in developing finance. We seek in this article to understand whether this independence is plausible, conclude that it is, and raise the question as to whether its plausibility helps to explain why finance has progressed unevenly around the world.

Conventional policy advice could backfire if independent channels run from political instability to financial backwardness, because an investor-protection-oriented policy focus could fail if other political foundations must be built simultaneously. That result could sour policy-makers on protection tools, when they are in fact necessary, just not sufficient. Indeed, in some national settings in the developing world, further protecting investors could more severely destabilize an already unstable polity. Given Alesina and Perotti's (1996) finding that severe economic inequality is the key determinant of political instability and the likelihood that investor protection would protect the most favored elements in such polities, this risk of backfire, although speculative, is plausible. More specifically, investor protection may fail to function well in polities that fail to first develop sufficient equality, such as that of a broad, property-owning middle-class.

Causality considerations and the possibility of collinearity are relevant but do not erase the lines running from political instability. First, instability is not strongly collinear with prior explanatory variables. Second, variance inflation factor analysis shows that no significant multicollinearity influences the models. Third, to anchor causality as running from instability to financial outcomes, we deploy a two-stage instrumental variable model. Key institutions needed for basic financial development would function poorly in a severely unstable polity, making it odd if finance developed strongly *while* the polity was unstable and if financial development *thereafter* stabilized that polity. Both the two-stage evidence and prior law and finance theory fit best with a key causal channel running from political instability *to* financial backwardness.

Simply showing that political instability diminished financial development would be secondary if instability's effect on finance were only channeled through its effect on economic development. But it appears not to be so limited: when we control for economic development, via both the log of per capita GDP and GDP growth rates, political instability significance persists in our models, statistically and economically. Four decades of year-by-year regressions and country fixed-effects regressions show a regular and powerful correlation between political stability and strong financial development on the one hand and political instability and weak financial development on the other. Results are similar for political instability's association with weak financial outcomes in the less developed, non-OECD subsample.

Our work here relates to La Porta et al. (1997, 1998, 2008) in searching for the bases for financial development, although we find current political instability to explain financial development more powerfully than historical legal origin. It relates to Rajan and Zingales (2003, 2003b) in examining political economy determinants of financial markets. They examine how industrial elites, sometimes in alliance with poorer groups, benefit from financial repression that undermines potential competitors, while we focus on how conflict between the elites and others, when severe enough, destabilizes a polity and undermines financial development. It relates to Alesina and Perotti (1996) in that it finds political instability to be a primary determinant of an economic outcome. It complements work offering political economy explanations for finance, such as that of Rajan and Zingales (2003), Pagano and Volpin (2005), Perotti and von Thadden (2006), and Acemoglu and Robinson (2006). Finally, this article relates to Engerman and Sokoloff (2002) in finding inequality, political instability, and institutional quality interacting to produce economic outcomes, in our case financial backwardness.

The concept here is both new and old. It is new because we focus more on inequality-induced political variation as impeding financial development and less on the last decade's ideas as to the important institutional foundations for financial development. It is old, because the basic concepts go back through the ages, finding vivid expression in Aristotle's *Politics*: "the equalization of property … tend[s] to prevent the citizens from quarreling" (Aristotle (1986: 45, Bk II, Sec. VII). But simply striving for equality in unequal settings is no sure cure, as the striving by itself creates the very conflict that the polity needs to avoid (id: 142-144, Bk V, ch. 1.), yielding no easy recipe for stability. Overall, says Aristotle, "[i]t is ever best to live where equality prevails" (id: 158, Bk V, ch. VII), but not where it does not already exist and not where the citizenry are striving for it.

We conclude by trying to link two major literatures: an economics literature that sees political instability as strongly impeding economic development (e.g., Alesina and Perotti (1996); Rodrik (1999)) and a finance literature that sees financial development as strongly propelling economic development. A primary channel from political stability to economic development could well run through financial development. If so, much is at stake both intellectually and in policy terms in knowing whether political instability, which could depend on rough economic equality and the breadth of a property-owning middle class, is a primary determinant of financial backwardness. Although building such a foundation is far more difficult than building the formal institutions of investor protection and is beyond the remit of the development agencies, we outline below how further work can integrate the finding into policy.

I. EXPLAINING FINANCIAL MARKET DEVELOPMENT

Several explanations have become prominent in explaining financial development: legal origin, colonial endowments, trade openness, and political economy configurations arising from colonial endowments. Common law systems are seen as particularly adept at protecting investors with well-developed legal remedies, while civil law nations, particularly French civil law nations, do not, La Porta et al. (1997, 1998) and Beck, Demirgüç-Kunt, and Levine (2001) report. Rajan and Zingales (2003) look at incumbent interests who seek to thwart upstarts by denying them financial opportunities. But when the nations' trade channels are open, the incumbents need new financing as well, so they cease opposing financial development. Stulz and Williamson (2003) focus on cultural characteristics. Acemoglu, Johnson, and Robinson (2001) and Engerman and Sokoloff (2002: 88) develop a colonial endowments view, that those colonies that developed via extractive industries or plantation agriculture run by a small, elite group of colonizers using a large, unskilled labor force tended to have weak property rights. In contrast, colonies settled mostly by immigrants from the mother country developed stronger property rights, stronger educational traditions, and stronger financial and economic development. Relative democratic political instability should be added as a central consideration and, as our results show, is robust to the current explanations for differences in financial development, although we confirm the significance of several of the prominent ones.

Consider extreme instability, such as from insurrection, severe domestic violence, assassination, or a destructive civil war. Lindgren (2005: 10-12) reports: "[t]oday most armed conflicts are civil wars… . They accounted for 77% of armed conflicts [during the years] 1989─2003." Such instability and conflict divert the attention of public officials; capital flees the country; skilled people emigrate; and the base for economic and financial development weakens. Entrepreneurs who remain are unwilling to invest in physical assets and need less finance. "In this risky environment many entrepreneurs … engage [only] in economic pursuits that yield fast and large returns … " Lindgren (2005: 5) states. Short-term investments need less sophisticated capital market institutions than long-term investments. Unstable governments can provide and maintain the machinery of contract enforcement and property protection only with difficulty. Governmental macro- and financial policies and opportunities weaken.[1]

Two observations are worth keeping in mind. First, the incidence of serious, violent political instability has simply not been small. Fifty-seven countries had three or more instances of severe political instability, even short of civil war, since the 1980s, Banks (2005) reports. Second, there is a simple and

[1] Acemoglu et al. (2003) links poor macroeconomic policy to a weak institutional environment. Outreville (1999), in an unpublished paper, presents cross-sectional results linking Alesina and Perotti's (1996) instability index to the size of the money supply (M2). His result was limited to the late 1980s and did not control for legal institutions, trade openness, or colonial conditions, but is encouraging for our study.

strong association between political instability and financial outcomes, one that Figure 1 illustrates. Hence, there is reason to measure modern political instability, see if it predicts financial outcomes, and determine its robustness to alternative explanations for the world's variation in financial development.

II. DATA DESCRIPTION

We measure political instability's effects on financial markets across time and across nations. To do so, we need measures of political stability and measures of financial market outcomes. Four major indices of political stability are available. One is from Alesina and Perotti (1996), another from Banks (2005). For more recent years, a third is available from the Lausanne-based IMD (International Institute of Managerial Development) World Competitiveness Yearbook (1999-2004) and a fourth from the World Economic Forum. Four instability indices are used not just to see if the results persist over different measures, but because the indices cover different time periods and we want to see if our results persist over time. There are multiple ways to measure financial development, so we use multiple indicators. The results prevail across the multiple indicators.

A. Measures of Political Stability

The first instability measure here is Alesina and Perotti's (1996: 1207-1208) sociopolitical instability (SPI) index, which measures the average political instability by country for 1960-1982. Using principal component analysis, they construct their index from data on a nation's number of politically-motivated assassinations, the number of people killed in domestic mass violence (as a percentage of the nation's total population), the number of successful and attempted coups, and a categorical variable for whether the nation is a democracy or a dictatorship. Because the index uses deep disruptions — such as military coups and political assassinations — simple electoral change, even if frequent and sharp, does not count as unstable; violent change, even if infrequent, does. Because they weight the index with a categorical indicator of democracy, their index is not purely one of political instability in its intuitive sense. Pinochet's Chile, for example, would be stable in an intuitive sense, but, due to the democracy measure and the prevalence of violence, it is not coded as highly stable in the Alesina-Perotti index.

(Perhaps the categorical democracy variable captures some expected probability of future disruptions.) As such, the index could be recast as one of democratic political regularity. Regardless, this has been a respected and widely used measure — cited well over 100 times in the academic literature — of political instability, or as we might rename it, of democratic political regularity.

Alesina and Perotti (1996) show that the SPI index predicted total public and private sector investment by country during the years 1960–1985 and we follow them in testing whether the SPI index predicts private debt and equity market development. However, the data from which Alesina and Perotti derive their index was only collected through 1982 (Taylor and Jodice (1983)).[2] Accordingly, it is of limited use for assessing the political instability's potential impact in more recent years. Because of this limit to the index, and so as not to rely on just one measure of political crisis, we build our own subsequent index with the Cross-National Time Series (CNTS) database that Banks (2005) compiled of later political instability. This database, an earlier version of which served as the basis of Barro-Lee's (1994) political instability measures, has instability data running through 2003. We focus on its "government crisis" variable and, to better see whether past instability has continuing effect, we generate a moving index of political instability.[3] We take data on government crises by year for each country and use a 1 percent decay rate for assessing the impact of past government crises over the prior 30-year period. To check the robustness of the 1 percent decay rate, we ran the same tests with a 5 percent and a 10 percent decay rate with varying time periods. Results with these were similar to those with the 1 percent rate.

A third measure of political instability comes from IMD's World Competitiveness Yearbook (WCY). Since 1999, the WCY reported how several thousand executives around the world ranked political instability country-by-country, with the surveyed executives asked to rate on a scale of 0-10 the

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[2] We reconstructed and confirmed the Alesina-Perotti index from its components; the reconstruction, with the slightly varying index for democracy available to us, had a correlation approaching 1.00.

[3] Because the most serious forms of political violence (as shown both in Banks' data and illustrated in Figures 4 and 5) declined in recent years, Banks' government crisis variable stood out as plausibly explaining the instability component to recent financial development in the developing world. It included major eruptions of major political violence up to but not including coups. In the post-1980 environment, the incidence of coups and civil wars declined, resulting in low variation in these variables such that they no longer

extent to which they agree with the statement that, for their home country, "the risk of political instability is very low." The IMD's annual results were averaged over the 1999-2003 and 1999-2004 periods that overlap with our financial development indicators. The IMD index has the advantages of measuring business world actors' perceptions of political instability and of focusing on recent years. We also use a similar executive survey from the World Economic Forum's Global Competitiveness Report, which asks executives in a country the likelihood of legal and political stability over the subsequent five years.

B. Measures of Financial Outcomes

For outcomes, the principal ones used are stock market depth and banking breadth, as measured by stock market capitalization/GDP and bank loans/GDP, two core indicators of a nation's financial depth. Perhaps because they are core indicators, better data is available for more countries and more years than for other indicators.

For debt markets, the World Bank's World Development Indicators (WDI) data on the amount of bank credit to the private sector divided by GDP is the starting measure. We also use a closely related WDI measure of the total amount of credit received by the private sector divided by GDP. Both measures are available in the WDI June 2006 release for years 1965─2004. Next, from a 2006 update of a publicly available database that Beck, Demirgüç-Kunt, and Levine (2000) compiled, we use their variable for the size of the private bond market divided by GDP, as well as their variable for the size of the public bond market divided by GDP.[4] Those last two variables are available for years 1990-2003.

For equity markets, we first focus on stock market capitalization divided by GDP and the number of listed firms per thousands in population, two equity market variables available from WDI for years 1988─2004. Next, from the 2006 release of the database Beck, Demirgüç-Kunt, and Levine (2000) compiled, we use their coding of the variable for stock market capitalization divided by GDP. The latter data is available for a larger number of years (1976─2003), allowing us to see whether the effects persist year-by-year over more than a quarter of a century.

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explained differences in financial development. However, severe political instability up to but not including coups and civil wars continued to be widespread and variation on this measure proved highly significant in explaining ongoing equity market development.

For the other independent variables and for the controls, we use legal origin, trade openness, latitude, governmental structure, and per capita income. Table 1 lists the variables and their sources.

C. Further Data

Because we are also although secondarily interested in identifying plausible causes of political instability in addition to its effects, we examine income inequality, the variable that Alesina and Perotti (1996) use to predict political instability. The relative proportion of national income going to the middle class (defined as the third and fourth quintiles) comes from Perotti (1996) for 1960 or the closest annual observation available after 1960. We supplement that data with measures of Gini coefficients in the WIDER World Income Inequality Database for years 1970-2000.[5] Following the WIDER database compilers' recommendation, we focus on the Gini measures they rated as highest quality and chose those observations closest to each decade point (1970, 1980, 1990, and 2000).

Ethnic fractionalization is the most prominent further explanation for political instability, although even its explanatory power often comes from how it facilitates economic inequality (by exacerbating a dominant group's propensity to deny wealth to poorer citizens from another ethnic group). We use Alesina, Devleeschauwer, Easterly, Kurlat, and Wacziarg's (2003) measures of ethnic fractionalization.

We follow Rajan and Zingales (2003) in using the measure of natural geographic openness that Frankel and Romer (1999) created (and called "constructed trade share") and that Rajan and Zingales then used in the finance literature. We also use other measures of trade openness — [imports plus exports]/GDP and [imports plus exports]/GDP instrumented by constructed trade share. (Our political instability results below are robust to both, although trade openness is itself typically significant, as in Rajan and Zingales (2003).)

Because some authors believe that close-to-the-equator latitude drove most negative economic development outcomes, we add a control for latitude, from You and Khagram (2005) as also used

[4] This Year 2006 data release came from http://www.econ.brown.edu/fac/Ross_Levine/Publications.html.

[5] The WIDER database can be accessed at http://www.wider.unu.edu/wiid/wiid.html.

previously in Treisman (2000). To control for simple wealth effects, we use the annual log of GDP per capita in constant U.S. dollars from the World Bank's Word Development Indicators (WDI) database.

III. MODELS AND RESULTS

To begin, banking sector development in 1980, as proxied by bank credit provided to the private sector divided by GDP, has a pair-wise correlation with the SPI index of -0.47 ($p<.001$). A one-standard deviation increase in political instability is associated with a 24.3 nominal percentage decrease in banking sector development for 1980 — nearly one-half of a standard deviation in the dependent variable. This large result reduces to a more plausible level when we add GDP per capita, but stays economically substantial. This strong initial result suggested a basis to further investigate political instability as impeding financial development.

To assess the potential impact of political instability on financial development, we go through several steps, ranging from tests for time-consistency of instability to models with country fixed effects and then to instrumental variable regressions. As a first step, it is critical to test for the time-consistency of the variables that might explain financial development. Prior law and finance work has tended to work in the cross-section, with a large proportion of documented results taking place for cross-sections in the mid- to late-1990s. Rajan and Zingales (2003), however, show that it is imperative to test whether the variables of interest have a consistently positive or negative association with the dependent variable over time. Hence, we check for the consistency of political instability indicators for every year with available data in the past four decades. (The variable of interest meets the first test, that of time-consistency.)

We next test for endogeneity and unobserved heterogeneity as alternative explanations for the persistent association between political instability and financial development. To deal with the possibility of unobserved heterogeneity, one can use country fixed effects to partial out time-invariant factors. But for the early part of our sample time period political instability is highly time-invariant, making country fixed effects regressions invalid. However, starting in the late 1970s there is an increasing divergence in political instability both around the world and year-by-year. This increase in variation allows us to test for the impact of changes in political instability on financial development, nation-by-nation, via fixed country-effects regressions. The results, which are sharp, are presented below in Table 6. Lastly, to further deal with endogeneity concerns, we use a set of instrumental variables for political instability in Table 8, primarily based on considerations (and instruments) advanced in Alesina and Perotti (1996), Engerrman and Sokoloff (2002), and Easterly (2007). Table 9, our last, shows political stability to robustly predict financial outcomes using these instruments.

We first estimate the following OLS:

$$\begin{aligned}(1)\ \text{Bank Credit/GDP}_i = \beta_0 &+ \beta_1 * \text{Political Instability}_i + \beta_2 * \text{French Civil Law origin}_i \\ &+ \beta_3 * \text{Common Law origin}_i + \beta_4 * \text{Scandinavian Civil Law origin}_i \\ &+ \beta_5 * \text{Constructed trade share}_i + \beta_6 * \text{Log of GDP per capita}_i + \varepsilon_i,\end{aligned}$$

where banking sector development for country i is jointly determined by political instability, legal origin, constructed trade share, and the log of GDP per capita. In the unpublished Appendix, we estimate the same model, but with private credit/GDP, private bond market capitalization/GDP, and public bond market capitalization/GDP as alternative dependent variables. Results show political instability's strong association with all four debt measures.

Although the source data for the SPI index ends in 1982, we examine whether it predicts debt and credit outcomes for the rest of that decade. Its measured impact on bank credit/GDP endures significantly until 1988. Overall, it has a negative and largely statistically significant impact on bank credit divided by GDP for the years 1965—1988, even when controlling for legal origin, constructed trade share, and GDP per capita. (Its measured impact on the alternative variable for private credit/GDP endures significantly until 1984.)

Figure 2 abstracts the results thus far. We test whether political instability severely weakens financial development, as seen in channel A. It does, and it does so independently of its tendency to weaken the economy overall (which it also seems to do), mapped out via channel B. It also does so independently of the legal origins channel — channel C — that has been proposed in the past decade. (Below we examine the strength of the channel running from instability to weak finance for reverse causation, via a country fixed effects model and an instrumental variables model in the later Tables 6, 8, and 9. We also check below for its robustness to economic growth. Instability does well in the fixed effects and instrumental variables models and is robust to indicators of economic growth.)

For stock market capitalization, the results are similar. Table 3 estimates the following OLS regression:

$$\text{(2) Stock Market Development}_i = \beta_0 + \beta_1 * \text{Political Instability}_i + \beta_2 * \text{French Civil Law origin}_i$$
$$+ \beta_3 * \text{Common Law origin}_i + \beta_4 * \text{Scandinavian Civil Law origin}_i$$
$$+ \beta_5 * \text{Constructed trade share}_i + \beta_6 * \text{Log of GDP per capita}_i + \varepsilon_i ,$$

where stock market development for country *i* is jointly determined by political instability, legal origin, constructed trade share, and the log of GDP per capita. Each panel in Table 3 uses differing measures of stock market capitalization, but each points to political instability having a negative and highly significant association with stock market capitalization divided by GDP, again while controlling for log GDP per capita, origins, and trade. In Table 3, depending on the year, the World Bank's WDI data on stock market capitalization is available for between 41 and 54 countries, a number comparable to that used in prior studies that looked at stock market capitalization outcomes. As in Table 2, we present the Table 3 results for stock market capitalization year-by-year to examine the relationships for time consistency; the coefficient on instability was typically significant.

The SPI index and its underlying source data end in 1982, rendering the index of limited value in examining the relationship between recent political instability and financial development. Accordingly, we also use Banks' well-known index of political crises, which measures instability in later years. We construct a decaying index by using the current year's indication of instability, adding .99 of the prior year's measure, and then $.99^2$ of the prior year, and then $.99^3$ of the year before that, and so on, until the Banks data is exhausted; these results are reported in panel B of Table 3. Here too instability is typically significant. Decay rates of 5% and 10% produce similar results, as shown in unpublished Appendix.

We also examined pooled results for both ─ averaging the outcomes for the time invariant SPI measure and using year dummies for the time-varying Banks' measure. Since the year-by-year results typically have a significant coefficient on our measures of political instability, the pooled and averaged results yield a highly significant coefficient on the instability variables. But, since time consistency is relevant, we present the year-by-year results in Tables 2 and 3.

Could an omitted variable for latitude have driven our results? Because latitude and GDP per capita are highly collinear, we include one at a time and report the results in the Appendix. When controlling for latitude, political instability is generally significant in explaining debt market development and stock market capitalization divided by GDP. For stock market capitalization, the statistical significance of the SPI index also persists for most of the 1988─2004 period that WDI covers. Latitude is statistically significant only during a small time-window, 1997─2001.

To further assess the impact of political instability in nations having differing levels of wealth, beyond that handled with the wealth control, we also ran the key tests we report in Tables 2 and 3 by dividing the sample into OECD and non-OECD countries, to see if the effects were located primarily in the non-OECD countries. They were. (The results are reported in the Appendix.) Despite the lower number observations by dropping 30 OECD nations, the predictive power of political instability persisted and indeed was often stronger in the less rich sub-sample than for the full sample. Variation in instability was weaker in predicting financial differences for the richer, OECD nations. But, since most OECD nations have been stable in recent years, that result suggests that a nation needs to pass a threshold of stability and deep-crisis-avoidance, that many developing nations do not pass it, and that once passed, other factors also play an important role in determining financial differences.[6] In Table 4, we examine the relationship between changes in political instability and changes in stock market capitalization, by estimating the following OLS regression:

[6] Because OECD-member countries have been politically stable in recent decades and variation in political instability is highest among non-OECD member countries, political instability's effect on financial development is strongest in non-OECD member countries, as can be seen in the Appendix. Still, the strong political instability results were not driven by simple wealth differences: First, we control directly for log GDP per capita in all primary tables and find that political instability was still a highly robust determinant of financial development. Second, we show that the results for political instability are significantly robust to the use of instruments, as seen in Table 9. Lastly, while the instability effect in OECD nations was not as prevalent as it was in non-OECD nations, it nevertheless was present in our contemporary data and was fundamental in earlier eras, such as the Great Depression, as Voth (2002) demonstrates, and the 19th century, as Brown (2006) demonstrates, when instability varied more sharply in the wealthy West than it has in recent decades.

$$\text{(3) Change in 1990s-era Stock Market Development}_i = \beta_0 + \beta_1 * \text{Change in Political Instability}_i + \beta_2 * \text{Log of GDP per capita in 1990}_i + \beta_3 * \text{Constructed trade share}_i + \beta_4 * \text{Latitude}_i + \beta_5 * \text{Increase in 1990s-era Economic Development}_i + \beta_6 * \text{Level of Political Instability in 1990}_i + \varepsilon_i,$$

where the change in 1990s-era stock market development for country *i* is jointly determined by the change in political instability, the log of GDP per capita in 1990, constructed trade share, latitude, the increase in 1990-era economic development in that country, and the level of initial political instability in 1990. Changes in political instability predict changes in stock market capitalization, with controls in place for economic growth, trade, and initial starting economic condition. The effect is most pronounced in nations that started with high political instability, again suggestive of a threshold effect, with the small variation in the developed OECD nations being determinative.

Because political instability negatively affects economic development generally and weakly developing economies have a lower demand for finance, we wanted to assess better the extent to which the channel from political stability to financial development ran primarily through economic growth. To do so, we re-ran our primary models with not just a control for log GDP/capita but also a control for economic growth. (These tables are reproduced at the end of the unpublished appendix.) As before, political instability's significance persisted. In conjunction with the results for the non-OECD sub-sample described above, the evidence is suggestive of a separate channel from stability to financial development to growth.

As we have noted, the SPI index measures overall instability for 1960–1982. Many financial outcomes we report are for the subsequent quarter-century. But where we have outcome data going back before 1982, we use the SPI index to look at those earlier outcomes. We do so for two reasons. One, the underlying year-by-year instability measures were highly time-invariant in the first several decades after World War II. As a robustness check, we confirm and report in the Appendix that political instability from years 1948–1964 (using the primary source data used for Alesina-Perotti's political instability index) significantly explains financial development in 1965, when their financial data begins. Secondly, as the outcome years approach 1982, the issue becomes trivial.[7]

Does variation in political instability after 1982 (when the SPI index ends) continue to predict financial market development? To find out, we use additional measures of political instability: the moving index of government crises from Banks (2005) and the IMD instability surveys (over 1999─2004). Although government crises as measured by Banks (2005) were approximately one-third to one-half as frequent in the 1990s as they were in the 1960s and 1970s, the moving index has explanatory power even during the 1990s and early 2000s.[8]

After the secular decline in political instability in the 1980s, neither the 1960─1982 SPI nor Banks' Cross-National index predicts debt market development, but variation in lower-grade instability predicts equity market development, as each of Table 3's four panels show. Perhaps debt markets, for reasons requiring future research, are less affected by ongoing low-grade political instability than they were by the earlier high instability in some nations.[9] Also, because equity investments have a longer horizon than debt investments, investors expecting short-term stability while being very uncertain about long-term prospects for stability may be more willing to invest in debt and less willing to invest in equity.

Banks' Cross-National instability measure is also negatively and often statistically significantly related to stock market capitalization. (These results are also robust to using an alternative stock market measure: external market capitalization/GDP for 1996-2000, which is the dependent variable La Porta et al. (2006) study. We report this result in Table 7.)

Our other measure of recent political instability also predicts the strength of the primary financial outcomes. Annually since 1999, the IMD Survey has had several thousand senior business executives around the world rate nations' political instability. We averaged their reported perceptions. The averages

[7] After we present our primary results and robustness tests, we present a two-stage instrumental variables model in Tables 8 and 9 that indicates that reverse causality is not a significant concern.

[8] The source data for Alesina-Perotti (1996) index was not collected after 1982, barring us from extending the Alesina-Perotti measure. But Banks' Cross-National Time Series database (the basis for Barro-Lee's well regarded and much-used measures of political disorder) goes up through 2003.

predict stock market capitalization, bank credit, and private credit quite strongly and do so with the standard controls in place, as shown in the Appendix. We run similar tests on the World Economic Forum's similar 1997-2000 perception measure. It also robustly and consistently predicts financial outcomes. The results are consistent and robust both when we use the survey measure directly and when instrumented, as the Appendix reports.

Each measure of political instability significantly predicts weakness in financial development and is quite robust to explanations for financial development that have become prominent in the past decade.

Do SPI's components separately predict financial outcomes? The index has two major components, one of the severity of political crises (measured by coups, attempted coups, assassinations, and domestic political violence) and one based on the regularity of a nation's democracy. We decompose the index (in Appendix Table 2d) but find no persistent privileging of crises over democracy or vice versa. Both seem important. The regularity of elections is important, but alone does not dominate the results. Possibly a stable democratic polity with a broad middle class insists on property protection (including outside investor protection), with stability giving the government the means to provide it.

This last result is relevant to seeing how nations that are stable in an intuitive sense fit here — Pinochet's Chile or the pre-1989 Soviet Union, for example. Although governments in each persisted in power, neither would have been stable as measured, as both relied on violence to maintain their continuity and neither were democratic. Although stable in an intuitive sense, neither would be high on the political instability measure (or, perhaps, as we might label the characteristic were we writing on a clean slate here, a measure of democratic political regularity) here.[10]

We explored whether institutions whose importance has been brought forward before could be the primary ones inducing political instability, perhaps indicating an underlying common cause or simultaneous determination. Judicial branch characteristics, such as judicial independence, judicial

[9] The IMD measure of recent managerial perceptions predicts differences in debt outcomes, perhaps because a perceptions survey picks up finely-grained differences when the aggregate level of violence and instability declined in many nations in the 1990s. Equity markets may require stronger institutional support than debt markets.

review, and the importance of case law, have been advanced as important to financial development. Judicial characteristics could play one of two roles. They are seen as key channels to property rights, of which investor protection is a subset, and financial development. Hence, property-degrading political instability could be an aggregation of weak institutional channels of property rights protection. Second, at least in theory, judicial review could confine the destabilizing tendencies of a grasping legislature or executive.

Prior political science analysis would make one skeptical that either judicial channel would strongly affect political stability, as that analysis had judicial review and judicial independence as more likely to *reflect* underlying political consensus (and stability) than to cause it. Whittington (2005: 583, 594), a political scientist, states: "For … frequent [judicial] constitutional invalidation of legislation and executive action to be sustained over time, the courts must operate in a favorable political environment." And, "[p]olitical scientists have been skeptical of the significance of truly counter-majoritarian judicial review, which would seem unlikely to find political support in a democratic political system."

As for judicial independence, legal scholars view the judicial branch as less powerful than the legislative and executive branches. Bickel (1962: 1) begins his legal classic by stating that, despite being "the most extraordinarily powerful court of law the world has ever known," the American Supreme Court is the "*least* dangerous branch of the American government" (emphasis added). Its apparent independence derives from the polity's strong consensus on norms and institutions such that first-order political institutions accept review from a second-order one. Judicial independence reflects, but does not cause, the stability of the other branches. Despite this cause for skepticism, we ran the tests. As reported in the unpublished Appendix, instability is robust to judicial variables. The latter are generally not robust to instability.

Many in the political science literature, notably Linz and Valenzuela (1994), argue that presidentialist systems, lacking strong constraints on the executive, can destabilize their polities. As we

[10] The logic here is that instability undermines a nation's capacity to protect investors and develop finance, but this is not the only channel to financial atrophy. A stable polity may be capable of protecting investors but decide not to, due to its internal political

report in the unpublished Appendix, there is no significant relationship between presidentialist systems and financial development. The SPI index retains its significance in face of the presidentialist system variable.

The judicial and presidential results point to a channel running from instability and its causes to financial backwardness, a channel that does not simply reflect the institutions typically seen to help stabilize a polity. There seems to be a factor — political instability, presumably due to severe economic inequality — that degrades financial systems (or prevents them from developing) and that is independent of the standard measures of the quality of political institutions.

Finally, secondary results are consistent with the importance of political stability. In Table 5, we examine corporate law indices relationship with political instability and stock market development, by estimating the following OLS regression:

$$\begin{aligned}(4)\ \text{Stock Market Development}_i = {} & \beta_0 + \beta_1 * \text{Political Instability}_i + \beta_2 * \text{Anti-Self-Dealing Index}_i \\ & + \beta_3 * \text{French Civil Law origin}_i + \beta_4 * \text{Common Law origin}_i \\ & + \beta_5 * \text{Scandinavian Civil Law origin}_i \\ & + \beta_6 * \text{Constructed trade share}_i + \beta_7 * \text{Log of GDP per capita}_i + \varepsilon_i ,\end{aligned}$$

where stock market development for country i is jointly determined by political instability, the anti-self-dealing index, legal origin, constructed trade share, and the log of GDP per capita. Instability is robust to including major formulations of corporate law indices. The anti-self-dealing index from Djankov et al. (2008) is itself significant in most years, although the revised antidirector rights index from Djankov et al. (2008) (estimated in an analogous model in panel B) oftentimes is not. Lastly, the revised creditor rights index (available for years 1978–2002, see Djankov et al. (2007)), is never statistically significant in explaining banking sector development when compared directly with the SPI index, as the Appendix reports for an analogous model, but the political instability index typically retains the significance levels reported earlier.

Political stability strongly predicts financial development and is robust to alternative explanations.

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dynamics with anti-finance parties controlling the polity. Rajan & Zingales (2003) and Roe (2000) examine such possibilities.

IV. Discussion and Further Results

A. Sources of Instability: Does Stability Derive from Legal Origin?

We now consider the possibility that prominent explanations for financial differences affect financial markets by inducing political stability. If political instability is rooted in important part in the persistence of a property-owning middle-class as Alesina and Perotti's (1996) and our results, among several, suggest, and if it independently affects financial markets, then (1) current research agendas need to broaden and (2) policy advice based on some prominent explanations, such as to primarily emulate investor protection institutions of developed countries, is incomplete. For some nations it might even be incorrect. Investor protection programs may be insufficient, or might be undone by an unstable polity.

Even if the currently prominent explanations largely determined political instability, political stability would play a key role in law and finance. First, we would thus have identified an important channel to financial development. Second, adjacent literatures have focused on conduits to instability due to income and wealth inequality, and ethnic fractionalization. Thus, even if prominent explanations for financial backwardness flowed through instability, other conflicts and institutions might further destabilize (or stabilize) nations that would otherwise be stable (or unstable).

A first hurdle here is to see whether instability just proxies for legal origin. In assessing whether it does, one can consider several national pairings that illustrate the results in the more rigorous examination below. Nigeria — a common law country — experienced instability exceeding that of nearby Ivory Coast — a civil law country — suggesting that local conditions and not origins have much to do with instability. (Nigeria had five years of political instability during 1960–2003, according to Banks' (2005) widely-used measure of instability, the Ivory Coast two.) As measured by the number of military coups since independence, common law Nigeria is the *most* unstable African nation, Amadife (1999: 620) narrates.

For many of our regressions, legal origin either fails to predict financial development or is not consistently robust in doing so, but political stability predicts financial development regularly and is more often robust to other influences. To exemplify, Liberia's, Nigeria's, and the Sudan's common law origin did not give those nations — subject to violent conflict and political instability — significant advantages over civil law nations such as the Ivory Coast, Senegal, and Togo in achieving stability. During the two decades after African independence, legal origin did not predict the sixty post-independence African coups that Rake (1984: 25) compiled. Legal origin did not enable Zimbabwe to overcome the racial and economic conflict that destabilized the polity, damaged property rights, and led to sharp economic and financial decline. Richardson (2005).

We also looked for prior evidence that legal origin caused or prevented political instability or its constituent elements and did not find any. Economic historians focusing on political instability have not reported legal origin as a key channel to instability or related outcomes. For examples, see Dye (2006) and Sanders (1981), who review the literature on political instability, indicating many inputs to instability, including ethno-linguistic fractionalization, a weak middle class, and inequality, but do not mention legal origin. Indeed, that literature emphasizes that civil law countries are *too* statist, with a heavy government presence, and fail to allow financial markets to develop well. The instability channel in play here is largely the opposite: a *lack* of state capacity, not an excess. Huntington (1968) has made a similar point.

Still, political instability moderately correlates with French civil law. Although the annual political instability decay index never has a greater than 0.30 correlation with French Civil Law across the years (and typically correlates in the 0.08 to 0.20 range), the SPI Index has a 0.45 correlation with French Civil Law. (SPI's and the annual indices' correlation with all other variables is noticeably smaller.)

To test formally for a collinearity problem, we examined the models with and without the legal origin variables and with and without the political instability variables. Our doing so revealed no significant change in either set of coefficient results. Normally that would end the matter, even with higher collinearity. Moreover, the decay and country fixed effect models suggest a persisting effect of prior instability in disrupting later finance, a result more consistent with a varying cause than with the rigid effect of origin. We also found substantial variation of political instability inside each origin — common law nations such as Liberia, Nigeria, and the Sudan have been quite unstable, a variation that also suggested no serious collinearity problem. We tested whether the coefficients on the political instability variable were significantly inflated by legal origin. They were not. The variance inflation factor for political instability was consistently less than 1.70 throughout and conventionally concerns about multicollinearity generally arise only if the factor approaches 10. Similarly, examining the variance inflations factors showed that the coefficients on the legal origin and other variables were not meaningfully influenced by collinearity. The mean VIFs across varying specifications are consistently less than 3.25.

We also examined whether standard thinking in adjacent disciplines — that instability often results from inequality and ethnic fractionalization — was in play in our data. Income inequality, as proxied by the size of the middle class, was indeed highly robust in explaining political instability. Moreover, the occasional correlation between French legal origin and political instability typically disappears when we control for usual explanations for instability such as a nation's dependence on crops using unskilled labor, its land inequality, and its ethnic fractionalization, as Table 9 shows.

Additonally, the country fixed effects panels in Table 6 estimate the following panel regression with country fixed effects and year dummies:

$$(5)\ \text{Stock Market Development}_{it} = \beta_0 + \beta_1 * \text{Political Instability}_{it} + \beta_2 * \text{Log of GDP per capita}_{it} + \delta_i + \gamma_t + \varepsilon_{it},$$

where stock market development for country i in year t is jointly determined by political instability, the log of GDP per capita, country fixed effects δ_i, and a set of year dummies γ_t. Table 6 shows the in-country variation of instability strongly predicting financial outcomes, with $p<.001$. Since these fixed effects regressions take out unobserved as well as observed country-specific characteristics that are stable over time — like legal origin — they point to political instability being strongly associated with financial underdevelopment quite apart from both legal origin and unobserved heterogeneity concerns.

B. And What Causes Political Instability?

We do not aim to independently contribute to the literature on the causes of political instability, but we do want to discuss it. Alesina and Perotti's (1996) find that severe economic inequality is the primary determinant of political instability and we confirm this finding in our data as well. Investor protection institutions may not work well in highly unequal, unstable political environments.

Other factors contribute to instability, such as ethnic and religious strife, see Alesina and Spolaore (1997), Angeles (2006), Collier (2000: 9, 11-13), and Easterly and Levine (1997: 1223); cf. Ayyagari, Demirgüç-Kunt, and Maksimovic (2006). Unequal societies also tend to be ethnically heterogeneous, Glaeser (2006) reports, and resulting distributional fights impede economic growth, Alesina and Rodrik (1994) and Persson and Tabellini (1994) indicate.

C. The Direction of Causation

Another causation issue is in theory relevant: could financial development primarily determine basic political stability? We suspect that there is here, as is often the case, simultaneity and bidirectionality and we are also confident that once a nation is generally politically stable, further financial development can further increase economic opportunity, raise the standard of living of the least well-off, and thereby induce a virtuous cycle (consider Beck, Demirgüç, and Levine (2007)). But we want to check whether the *principal* route *to* basic political stability lies through financial development. Did weak financial development in, say, the 19th century primarily determine 20th century instability (as opposed to just being a supporting factor)? And then did that financially-induced instability in turn become the primary channel weakening 20th century financial development?

Neither a two-stage regression nor modern law and finance theory favor the primary channel as being one that runs from weak finance to high instability, particularly the severe instability that is the basis for our primary investigation. First, the two-stage regression: The fundamental geography of settlement led some nations to turn to crops that were best developed with landholdings worked by large pools of unskilled labor. That setting produced deep inequality, both initially and over time, from which institutions that perpetuated inequality emerged, a process prominent in Engerman and Sokoloff's (2002) work, which we follow in this dimension. Acemoglu, Johnson, and Robinson's (2001) work on how relative settler mortality in the colonies induced institutional choices that persisted to this day and the related modeling in Acemoglu and Robinson (2006) are also suggestive. It is not easy to see how financial backwardness would induce underlying instability-generating geographic conditions here. Moreover, the economic and political science literature, to the extent it does not attribute instability primarily to inequality, attributes it to ethnic fractionalization, as seen in Alesina and Spolaore (1997). Financial backwardness is unlikely to induce ethnic fractionalization, although it is plausible that fractionalization induced weak financial development both directly and by increasing instability. Because unequal societies tend to be ethnically heterogeneous, as Glaeser (2006) reports, and distributional fights in unequal societies impede economic growth, as Alesina and Rodrik (1994) indicate, well-established channels run to instability that do *not* run from financial development. Overall it seems unlikely that early financial backwardness primarily caused 20th century political instability, but, again, our data does not fully rule out that possibility.[11] These causality channels are illustrated in Figure 6.

The best way to think of the likely bidirectionality here is as follows: Political stability, based on enough inequality-reducing (or the absence of strong inequality-maintaining) institutions, is foundational for sparking financial development. This channel is represented by arrows E and A in Figure 6 and illustrates the core concepts of the Engerman and Sokoloff (2002, 2005) literature. Once the threshold of basic stability is achieved and development starts, further financial development could strengthen the economy and sometimes even reduce inequality, as illustrated by arrows D2 and B in Figure 6.

We first instrument the SPI index with historical and largely exogenous variables used in adjacent inquiries, focusing on crops, inequality, and fractionalization. We first set up the instruments with the following OLS regression:

$$\begin{aligned}(6)\ \text{Political Instability}_i = {} & \beta_0 + \beta_1 * \text{Size of the Middle Class}_i + \beta_2 * \text{Ethnic Fractionalization}_i \\ & + \beta_3 * \text{Frankema Land Inequality Measure}_i \\ & + \beta_4 * \text{Rice Export/Total Agricultural Exports in 1975}_i \\ & + \beta_5 * \text{Sugar Export/Total Agricultural Exports in 1975}_i \\ & + \beta_6 * \text{Cocoa Bean Plus Cocoa Powder Export/Total Agricultural Exports in} \\ & \text{1975}_i + \beta_7 * \text{Coffee Export/Total Agricultural Exports in 1975}_i\end{aligned}$$

[11] The earliest years covered by the World Handbook were used, showing statistical support for the fact that political disorder in years dating back to 1948 predicted weakness in subsequent debt market development in 1965.

$+ \beta_8 *$ Tobacco Export/Total Agricultural Exports in $1975_i + \beta_9 *$ Mean Temperature Above 32 degrees Celsius$_i + \varepsilon_i$,

where political instability for country *i* is jointly determined by the size of the middle class, ethnic fractionalization, a set of variables measuring the country's reliance on specific crops (variables that are the focus of Engerman and Sokoloff's (2002) theory about inequality-perpetuating conditions), and extreme environmental temperature in that country.

. The task had multiple data constraints. Many factors behind instability have not been measured across many nations and years, reducing the number of observations available. Still, as the estimation in model 1 of Table 8 shows, the size of the middle class in 1960 alone explains much variation in the SPI index. In full first-stage, we expand upon the simple middle-class model, adding national geographic propensity to rely on crops best grown via large pools of unskilled labor — a traditional explanation in adjacent academic work for inequality and instability. While there is a risk of some secondary reverse causation here reducing the power of crop-propensity instruments — financial weakness may compel production of some crops that need no financing — the agricultural evidence strongly points to the instruments' basic validity here. Easterly (2007) shows their validity:

> [C]rop endowments measure … the percent of national arable land area suitable for different crops, taking into account such factors as soil, rainfall, temperature, and elevation. [Source omitted] discusses the botanical mechanisms by which different ecological zones are compatible with some types of crops and not with others. For example, sugarcane does not grow below 15–16° C, needs an average of about 1200–1500 mm rainfall a year, and favors level rather than steeply elevated lands [source omitted]. In contrast, wheat photosynthesizes at low temperatures (15 to 20° C) and cannot be grown in the warm tropics (FAO, 2005). These characteristics have thus plausibly remained constant over time, thus reflecting historical conditions for inequality.

Rajan and Zingales' (2003b: 152) anticipate Easterly's analysis: "Some lands lend themselves to intensive farming, while others lend themselves to a mode of agriculture such as plantations that is more extensive. This may partly explain why Costa Rica has had a more democratic history than Colombia." Bobonis (2008) confirmed this view when examining contrasting cultivation qualities in Puerto Rico. Where land and weather supported labor-intensive cultivation of crops such as coffee, more intensive coercion institutions emerged, such as more rural police and well-funded paramilitary forces. Inequality persisted because of institutional structure and the elite's interest in having a pool of unskilled labor: public schooling was less prevalent in such areas and both adult and child literacy was persistently lower than in other areas of the island.

The land inequality variable we use is Frankema's (2006).[12] Highly unstable countries tend to have very high average temperatures, with instability presumably due to the kind of landholdings and resultant inequality that the geography induces. In principal, inequality could affect financial development other than through political instability and that leakage, if substantial, could defeat its usefulness as an instrument here. Two further tests indicate though that this side channel does not dominate. First, we reinserted the inequality variable in the second stage; the coefficient was not significant. (The appendix displays this model.) Second, changes in inequality did not directly predict stock market development when run without political instability, suggesting it is not primarily a direct determinant of financial development but is part of the bundle of determinants of democratic political instability, with that instability then having a detrimental effect on financial development. While further work here is appropriate and the instrumental variable model is not immune to weakness, including the number of surviving observations and the potential for an instrument to itself have some endogenous qualities, these two results suggest that a plausible initial interpretation of the instrumental variable model is that the channel running from inequality and financial development largely goes through political instability.[13]

In Table 9, we instrument the SPI index from the column 6 results of Table 8 to predict financial development. We estimate the following IV model:

(7) Financial Market Development (using alternative DVs in succession)$_i$ $= \beta_0$

[12] Frankema's measure is constructed such that higher values signify more land equality.

[13] Some of that future work could account for Beck et al's (2007) finding that increases in financial development were associated with subsequent reductions in inequality. However, they did their work with the old version of the Gini panel, which, although the best available to them at the time, was seen as having serious embedded problems. With the recent updates, this association no longer obtains, particularly when run in country fixed effect models. (We would expect, though, that redistribution programs that support the poor through enhanced credit access for them would show an association between these types of financial changes and inequality reductions; our impression is that these programs are not yet widespread enough to have world-wide effects.)

We reexamined our results, using the recently updated, but not fully vetted GINI data. As with the currently and widely used GINI database, changes in inequality did not directly predict stock market development, as can be seen in the appendix

$$
\begin{aligned}
&+\beta_1 * \text{Instrumented Political Instability using Equation (6) above}_i \\
&+\beta_2 * \text{French Civil Law origin}_i + \beta_3 * \text{Common Law origin}_i \\
&+\beta_4 * \text{Scandinavian Civil Law origin}_i + \beta_5 * \text{Constructed trade share}_i \\
&+\beta_6 * \text{Log of GDP per capita}_i + \varepsilon_i,
\end{aligned}
$$

where financial market development for country *i* is jointly determined by the instrumented political instability using Equation (6) above, by legal origin, by constructed trade share, and by the log of GDP per capita.

The instrumented instability index, using the instruments from model (6) in Table 8, significantly explains averaged bank loans to GDP for the years 1965-1975. It also significantly predicts bank loans to GDP for the years for which the SPI index overlaps with available financial development data. (It is robust in a non-OECD subsample.) It significantly explains the earliest available year of stock market development data from the World Bank (for 1988, which is six years after the end of the 1960–1982 period the SPI index covers). As we report in Table 9, Beck Demirgüç-Kunt, and Levine's (2000) financial data, which starts several years earlier the World Bank's, yield similar results for the importance of political stability. Although not robust for every year, the evidence using instrumented SPI is sufficiently consistent across time periods and development indicators to indicate that one should not reject, and indeed that there's supportive evidence of, causality as running from stability to finance.

Each model in Table 9 passes the test of overidentifying restrictions. We used the "estat overid" command in STATA after running two-stage least squares models through Panels A and B of Table 9. In the first model of Panel A, the resulting chi-square is 10.23 (p=0.25). In the second model A, the chi-square is 5.71 (p=0.68). In the third, the chi-square is 7.35 (p=0.50). In the fourth, the chi-square is 4.02 (p=0.86). In the fifth, the chi-square is 7.50 (p=0.48). In the sixth, the chi-square is 5.99 (p=0.65). In the first model of Panel B, the chi-square is 8.60 (p=0.38). In the second, it is 6.38 (p=0.60). Hence, the null assumption of valid instruments cannot be rejected by this test. Using the "estat firststage" command in STATA, we find that the instruments are particularly strong for explaining the stock market development results in Model 5 of Panel A (F-statistic=17.70; p=0.00); Model 6 of Panel A (F-statistic of 16.67;

p=0.00); and Model 1 of Panel B (F-statistic of 105.40; p=0.00); and the debt market development results in Model 2 of Panel B (130.86; p=0.00). The first-stage F-statistics for Models 1-4 of Panel A are somewhat weaker: the R^2 in the first stage for those models is relatively high (greater than 0.46), but the F statistics do not surpass the usual rule of thumb of 10. Finally, the results of the post-estimation "estat endogenous" tests in STATA for every model of Table 9 suggest that political instability can be treated as largely exogenous under the usual analysis of instrumental variables. Only in Models 5 and 6 of Panel A are the p-values for the robust score chi-square below 0.10; in those two models the p-values are above 0.05. In all other models the p-values are between 0.26 and 0.91.

Regardless of the strength of instrumental variable analysis, in general or as applied here, an important conceptual basis exists for strong reverse causation being unlikely here. A main thrust of the last decade's law and finance inquiries is that government and legal institutions of some sort are central to protecting investors from wrongdoers. But a nation with an *unstable* political environment could not easily produce good government and strong investor protection institutions while remaining unstable (Svensson (1998: 1318-1319)), with that investor protection *then* inducing financial development (in the midst of pervasive political instability), and with that good financial development then *later* stabilizing that nation's previously-unstable polity. The government institutions that investors need for protection are inconsistent with an unstable, unreliable polity. Hence, a significant direction of causation — to fit with main findings of the prior decade's law and finance inquiry — *must* run *from* stability *to* finance.

The instrumental variable results do not mean that other channels do not exist, nor are the instruments themselves immune to any challenge. Surely there is some leakage from the channel, with severe inequality inducing some financial backwardness other than through political instability. But, again, the robustness of instability to measures of economic growth (as shown in the appendix), the fact that inequality, when inserted in the second stage is not significant and does not significantly correlate with financial outcomes when run without political instability, and the weakness of the association between changes in inequality and changes in financial development, each indicate that that the leakage does not overwhelm the channel we examine here. The instruments derive from and revolve around the possibility that historical inequality and inequality-inducing exogenous institutions affect political instability, which in turn affects financial development. Although the channel has not been closely examined with recent financial data, it is derived from to concepts in play as early as the time of the Greek philosophers and, more recently, in work by Acemoglu, Johnson, and Robinson (2001), Alesina and Perotti (1996), Engerman and Sokoloff (2003), and Gradstein (2007).

Still, we acknowledge the difficulty of finding perfect instruments and ours are surely imperfect, because it is exceedingly difficult to rule out any reverse causation and any possibility that the instrument affects the outcome other than through the variable of interest. Yet the existence of an important channel running from severe economic inequality to political instability to financial backwardness is not just consistent with the instrumental analysis, but also with prior theorizing from political science and development economics and such a channel is a good fit with the year-by-year cross-sections with multiple measures of political instability going back 4 decades that we present. A strong and robust association exists between political instability and financial development and the instrumental variable analysis, even if it does not resolve the issue, points further toward a plausible causal channel running from the former to the latter.

D. Interactions with Other Existing Theories

The data suggests political stability propels financial development and instability retards it, independently of instability's effects on the economy overall. We re-ran our main regressions by adding the WDI's annual growth rate for each nation; the political instability measures' significance persists, providing strong evidence that there is a direct channel from political instability to weak financial development, one that does not simply go through economic growth. (Results are reported in the unpublished Appendix.) This key channel to financial backwardness runs independently of origins-based investor protection, trade openness, and related explanations. But this result obviously does not mean that the other theories lack relevance. Trade openness is typically significant too. The colonial endowments explanation may work its way through political instability to financial markets, because extractive settlement strategies bred colonial inequality and supporting institutions, with that inequality and those institutions continuing up through the modern era. But even so, it remains plausible that it is modern instability, and not just poor endowments directly, that mainly impedes later financial markets. In any case, as the Appendix shows, the political stability results are robust to colonial endowments. The investor protection arm of modern law and finance persists, but it may depend as much on relative political stability as on previously-advanced considerations.

How political instability interacts with the strength of stabilizing institutions remains to be sorted out and, while important, is secondary to first seeing that relative political instability needs to be put into the causal chain. First, a nation's current instability could result from its current political institutions being unable to stabilize the polity, while a nation with stronger institutions could contain that instability. Second, weakened stabilizing institutions could interact with strong political instability to undermine finance, either directly or by degrading investor protection institutions. Figure 3 illustrates these channels to financial backwardness. Moreover, the current weakness of a polity's stabilizing institutions could be due to severe historical inequality having prevented politically stable institutions, in a way similar to how Engerman, Haber, and Sokoloff (2000) show that poor institutions developed in New World economies that were based on exploitive, plantation-style labor. (This could be illustrated by adding an input to the left of the (contemporary) Political Instability/Weak Stabilizing Institutions box in Figure 3, one for historically destabilizing institutions.) Also, current instability could be so severe that what would otherwise be satisfactory stabilizing institutions cannot contain the explosive instability.[14] Glaeser, Scheinkman and Shleifer (2003) model how severe inequality can degrade institutions, either because the wealthy degrade them for their own benefit to reduce the have-not's access to better institutions or because the have-nots, seeking to redistribute to themselves, degrade property institutions that protect the wealthy. Claessens and Perotti (2007) review similar channels. Rajan and Zingales (2003a) in particular

[14] We do not seek here to uncover how institutions and instability interact. Our aim is to show that instability significantly affects financial development and does so independently of the channels that run from or through legal, investor protection, and overall economic development. Current instability and severe inequality, whatever are their underlying causes, could either stymie stabilizing institutions from emerging or stymie otherwise acceptable ones from functioning well.

indicate that the strength of property rights is partly a function of how it is distributed: Our results here, with inequality-dependent instability damaging financial development, support these analyses. The degree to which each of these channels is in play is well worth exploring. The key point though is that the evidence here points to relative political stability as a major factor in the causal chain that explains financial development and financial backwardness.

V. Future work: Specifying the Channels

We aim to broaden the research agenda for financial development by furthering the existing inquiry into its political economy bases. What else needs to be done here?

A. Specifying the Channels

We have noted several plausible channels from instability to financial backwardness already. Here we discuss them further. Future work would be needed to understand which channels are the most important conduits running from political instability to financial backwardness.

As we noted above, instability and civil wars have been frequent in the developing world during the past half-century. Not only have such armed conflicts not been rare (Banks (2005)), they have not been short, with many lasting for more than a decade, and they have not been cheap, costing many affected nations more than 50% of their pre-conflict GDP, as Fitzgerald (1987), Richardson and Samarasinghe (1991), and Lindgren (2005: 10-12) show. Such conflicts have been numerous in the past half-century, but less frequent recently.

In highly unstable polities, public officials do not develop private financial markets because they have more basic tasks to handle. Instability often renders social capital investments, such as entrepreneurs' building reputations for reliability, less valuable (Collier (1999: 169-170)). Entrepreneurs see little point in investing in their reputational and social capital if they expect to be unable to draw on it. Instability makes formal rules more unstable (Maurer (2002)), legal reform projects fail (Dye (2006: 190)), weakens the institutions for good macro-economic policy, and enforcement tools for protecting property deteriorate (id.: 195). Civil wars undermine the state, as Collier (1999: 168-169) says, as they weaken "both its institutions such as property rights, and its organizations such as the police. … [T]he rule of law diminish[es]. The enforcement costs of contracts consequently rise and the security of property rights is reduced." Governments cannot credibly commit to broad, long-term property rights protections in the midst of political instability, as Haber, Razo, and Maurer (2003: 19) explain was the case for Mexico:

> [G]overnments under siege, or factions aspiring to be governments, cannot afford to tie their hands. This produces two problems for asset holders. First, they cannot know with any degree of certainty the content of government policies in the future. Second, asset holders know that the government has strong predatory incentives concerning property rights — regardless of its stated ideology. If the [current] government is not predatory, someone else [may well] be … .

A politically stable nation provides stronger foundations for financial development. Marketplace reputations and informal mechanisms are made worth developing. Cf. Allen, Qian, and Qian (2005); Franks, Mayer, and Rossi (2006); Mayer (2008). Governments can turn to building the institutions of financial development when basic issues of order have been resolved. Capital flight decreases. Entrepreneurs can focus their efforts on developing their businesses instead of mitigating the impact of local political instability. As their businesses grow, the entrepreneurs demand for financing increases.

B. **Refining the Understanding of Instability's Impact**

Future work should refine how we understand instability's impact: Instability via a sharp governmental change that led not to persistent turmoil but to a stable resolution and then stronger, not weaker, financial development over the long-run. On the other hand, equality-enhancing movements that fail may yield years of instability as citizens fight over resources, income, and property.

Because the most prominent political instability index primarily measures violence, a strong authoritarian regime might have modest financial development — because the players expect an eventual end to the regime that will upset prevailing arrangements — yet be coded as stable, if violence is low. Refinement is in order if rigidity breeds expectations of future political instability.

Lastly, equality, perhaps in particular via a broad property-owning middle-class, may keep a polity stable *once that equality is achieved,* but it may not be easy to generate that equality in societies that do not already have it. Some reforms have succeeded ─ post-War land reforms in Taiwan and South Korea come to mind ─ others failed or began periods of extended political instability. The basic dilemma is not new: Aristotle sketched out these considerations several millennia ago in *The Politics*: although "the equalization of property … tend[s] to prevent the citizens from quarreling (Aristotle (1986: 45, Bk II, Sec. VII), efforts to create that equality induce the very conflict that the polity needs to avoid (id: 142-144, Bk V, ch. 1.). To avoid turmoil, it is better "to live where equality prevails" (id: 158, Bk V, ch. VII), but not necessarily better to strive to get that equality to prevail.

C. Considering the Future

We want to end our discussion on a hopeful, future-focused note. For reasons not yet fully understood, democratic political stability around the world increased noticeably during the past decade or two, as Figures 4 and 5 show. Given the strong relationship we have shown here between stability and financial development, the secular decline in political instability in the past decade or two gives reason beyond optimistic hope to expect that efforts such as those of the World Bank to initiate financial development by building the right investor protection institutions will not go to waste. In such politically stable settings, their technical finance-enhancing efforts seem, from the data in this paper, most likely to succeed. In unstable political environments, the technical institutions of investor protection are unlikely, our data suggests, to strongly propel financial development. Investor protection efforts may work better in tandem with new World Bank (2007) initiatives that focus on inequality, although those initiatives do not yet link to the possibility of enhancing financial development, nor has the Bank yet analyzed the potential impact of its inequality-reducing initiatives on financial development.

CONCLUSION

Political instability is important to explaining variation in financial development around the world. Considerable attention has been given in the past decade to explaining which institutions foster or impede financial development, but democratic political stability as a necessary condition, or instability as a serious impediment, has not played the prominent role the results in this paper indicate it deserves. We contribute here to understanding the variance in financial development around the world by showing that variation in political stability has a significant, consistent, and substantial impact over many decades on debt and stock market development. Democratic political instability needs to be added to the small number of core factors that determine financial development around the world.

Political instability's impact on finance is investigated here not just to confirm the intuitively appealing proposition that instability harms financial markets and does so after controlling for the level of a nation's economic development, but to show that it harms finance independently of each prevailing explanation for financial backwardness. Well-regarded conventional measures of political instability — such as Alesina and Perotti's (1996) and Banks' (2005) indices of severe political crises such as military coups, political assassinations, and political violence — persistently and significantly predict a wide range of conventional national financial outcomes. These results are robust to investor protection, to legal origin, to trade openness, to latitude, and to other measures that have obtained prominence in the past decade. These factors could well be in play and we believe several are, but political stability is there as well and it is there quite significantly and robustly. Financial backwardness is significantly rooted in severe political instability. We thus further extend thinking on the political economy finance, such as that in Acemoglu, Johnson, and Robinson (2001); Rajan and Zingales (2003, 2003a, 2003b); Perotti and von Thadden (2006); and Pagano and Volpin (2005).

That basic finding, which holds up year-by-year over several decades, holds up over four different measures of instability and over multiple measures of financial development. It holds up in country fixed effects and is supported in instrumental variable regressions. It is persistently robust to legal origin and quite consistent over time, while origins' effects are not similarly consistent over time. As such, an instability inquiry should open up new policy avenues for financial development and weaken old ones.

In finding a robust channel running from political instability to financial backwardness, we link two major literatures: an economics literature that sees political instability as strongly impeding economic development and a finance literature that sees financial development as strongly propelling economic development. A primary channel from political stability to economic development could well run through financial development.

Such findings could affect development policy. It may be that rough equality, such as that of a broad property-owning middle class, in democratic settings more often than not, induces the political stability that is foundational for financial development. Such democratic and stable polities may better be able to protect property (of which investor protection is a subset) than can less democratic, unstable polities. While development agencies may be unable to deeply change nations in this dimension, their knowing where part of the foundation is should better enable them to choose how to help and to know which nations will most benefit from their help. This property-owning middle-class foundation for finance could be as important as the currently prominent characteristics but has not been a major component of recent thinking in academic finance.

Understanding that political stability is foundational for finance — the task we seek to further here — is fundamental, going far in helping to explain cross-country differences in financial development.

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Table 1. Description of Variables

	Political instability measures
SPI Index	The Sociopolitical Instability (SPI) index measures the overall, average political instability by country for the period 1960-1982. Principal component analysis was used to construct their index, based on a nation's number of politically-motivated assassinations during that time period, the number of people killed in domestic mass violence (as a percentage of the nation's total population), the number of successful and attempted coups, and a categorical variable for whether the nation is a democracy or a dictatorship, set at 1 for democracies, 0.5 for semi-democracies, and 0 otherwise.
Political Instability as a Decaying Factor: 30-Year, 1% Decay Index	Index created by counting any rapidly developing situation that threatens to bring the downfall of the present regime. Underlying data is from the New York Times, as assembled by Banks (2005). We used a moving index with a 1% annual decay rate. The decay index takes the current year's observation of political instability from Banks' data, adds to that .99 of the prior year's instability observation, then adds $.99^2$ of the observation from two year's prior, then adds $.99^3$ from three year's prior, and so for all available annual observations of instability from Banks, which go back approximately 30 years for the most recent observations. We used alternative decay rates of 5% and 10%, using analogous constructions.
IMD instability measure	Lausanne-bassed International Institute of Managerial Development's measure of political instability for recent years, based on executive surveys. We averaged the annual results for the 1999-2003 and 1999-2004 periods that matched the available years for the financial development indicators.
World Economic Forum instability measure	Survey of business executives on their opinion of likely political stability in a nation for the subsequent five years.
	Financial outcomes
	Banking and private debt outcomes
Bank Credit/GDP	Equals the amount of bank credit to the private sector divided by GDP. Data available for years 1965─2004.
Private Credit/GDP	Equals the total amount of credit received by the private sector divided by GDP. Data available for years 1965─2004.
	Equity market development outcomes
Stock Market Capitalization/GDP	Equals stock market capitalization divided by GDP. Data available for years 1988─2004.
Beck's Stock Market Capitalization/GDP	Equals stock market capitalization divided by GDP. Data available for years 1976─2003.
	Controls and instruments
Legal Origin	Index created by coding countries by legal origin, into one of five categories - French Civil Law, Common Law, Scandinavian Law, Socialist Law, and Germany Civil Law. Any data missing from La Porta et al. is coded using the CIA Factbook.
Size of the Middle Class	Indexed by the relative proportion of national income going to the middle class (defined as the third and fourth quintiles) in 1960 or the most proximate annual observation available after 1960.
Gini coefficient	Index of income inequality measured by the Gini coefficients in the WIDER World Income Inequality Database for years 1970-2000.
Ethnic Fractionalization	Index created by finding the probability that two randomly selected members of a population be of the same ethnic groups. The definition of ethnicity combines racial and linguistic characteristics.
Natural Geographic Openness - constructed trade share	Index measures the trade share of a country and takes into account the following variables: real income per person; international trade (measured as exports plus imports); log population and log area of countries, and; dummy variables for whether countries are landlocked and whether they have a common border.
Latitude	Index of latitude, measured by distance from the equator.
Log of GDP per capita	Data on GDP per capita in constant U.S. dollars for the years 1965─2004 came from the World Bank's Word Development Indicators (WDI) database.
Anti-Self Dealing Index	Index computed by weighting: (1) the approval required by disinterested shareholders; (2) disclosures required by buyers; (3) whether independent financial review is required; (4) the % of shareholders who are required for standing to sue; (5) the quality of ex-post periodic disclosures; (6) the ease of rescinding a transaction ex-post; (7) ease of holding the buyer liable; (8) ease of holding the approving body liable; and (9) access to evidence.
Djankov Anti-Director Rights Index	Updating and correction of earlier index computed by aggregating shareholder rights. Covers the following six areas: (1) vote by mail; (2) obstacles to the actual exercise of the right to vote (i.e., the requirement that shares be deposited before the shareholders' meeting); (3) minority representation on the Board of Directors through cumulative voting or proportional representation; (4) an oppressed minority mechanism to seek redress in case of expropriation; (5) pre-emptive rights to subscribe to new securities issued by the company; and (6) right to call a special shareholder meeting.
Creditor Rights Index	Index measures four powers of secured lenders in bankruptcy. First, whether there are restrictions, such as creditor consent, when a debtor files for reorganization. Second, whether secured creditors are able to seize their collateral after the petition for reorganization is approved, in other words whether there is no 'automatic stay' or 'asset freeze' imposed by the court. Third, whether secured creditors are paid first out of the proceeds of liquidating a bankrupt firm. Finally, whether an administrator, and not management, is responsible for running the business during the reorganization. A value of one is added to the index when a country's laws and regulations provide each of these powers to secured lenders. The creditor rights index aggregates the scores and varies between 0 (poor creditor rights) and 4 (strong creditor rights).
Land Inequality	Index compiled by calculating the Gini coefficients of inequality of land distribution. Gini analysis is performed on the decile distributions of the total number of land holdings (farms), and the total amount of agricultural land (excluding communal pastures and forests).
Rice, sugar, cocoa, coffee, and tobacco export/total agricultural exports in 1975	Equals the proportion of total agricultural exports accounted for by each agricultural item in 1975.
Mean temperature above 32 degrees Celsius	Index taking 1 if the mean temperature of the capital city is above 32 degree celsius, 0 otherwise. Temperatures were taken from the sixth edition of the National Geographic Atlas of the World (Garver, Payne, & Canby, 1990).

Table 2. Political Instability and Credit Market Size (1965-1990)

This table presents the results of cross-sectional OLS regressions in which bank credit is the dependent variable and the instability measures, legal origin dummies, constructed trade share, and log GDP per capita are independent variables. The German Civil Law dummy is the omitted dummy variable. The instability measure is Alesina-Perotti's sociopolitical instability (SPI) index, which runs through 1982, Although the SPI index and its underlying source data end in 1982, we regress debt outcomes on the measure for the rest of that decade to ascertain whether it has continuing predictive value. We run similar OLS regressions with other credit measures, such a total private credit and bond debt, in the Appendix. Results are similar. There were no Socialist Law countries with available SPI data. T-statistics appear to the right of each coefficient, with statistical significance is assessed based on robust standard errors. *** indicates significance at the .01 level, ** indicates significance at the .05 level, and * indicates significance at the .10 level.

Bank Credit/GDP as predicted by political instability, legal origin, trade, and log GDP per capita

Year of Data	SPI Index		French Civil Law		Common Law		Scandinavian Civil Law		Constructed Trade Share		Log of GDP per capita				
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Obs	p value	R-squared
1965	-0.426***	-2.93	-34.473**	-2.22	-36.762**	-2.32	-27.287*	-1.71	-0.356**	-2.43	7.471***	4.04	57	0.000	0.618
1966	-0.419***	-2.85	-35.590**	-2.36	-37.620**	-2.50	-25.970*	-1.70	-0.344**	-2.48	7.169***	4.06	59	0.000	0.614
1967	-0.446***	-3.02	-33.924**	-2.25	-35.921**	-2.38	-25.036	-1.63	-0.369***	-2.66	7.374***	4.19	59	0.000	0.625
1968	-0.386**	-2.60	-32.734**	-2.10	-33.840**	-2.18	-23.427	-1.44	-0.321**	-2.34	7.585***	4.23	60	0.000	0.595
1969	-0.395***	-2.68	-32.145**	-2.08	-34.564**	-2.24	-23.978	-1.43	-0.294**	-2.03	7.649***	4.35	60	0.000	0.595
1970	-0.356**	-2.34	-45.695**	-2.63	-47.148***	-2.68	-38.647**	-2.16	-0.368**	-2.04	8.067***	4.44	60	0.000	0.624
1971	-0.347**	-2.16	-38.263**	-2.23	-39.935**	-2.27	-31.592*	-1.79	-0.411**	-2.02	8.023***	4.15	61	0.000	0.593
1972	-0.376*	-2.00	-38.670**	-2.13	-41.095**	-2.23	-34.512*	-1.84	-0.502**	-2.41	8.435***	4.16	61	0.000	0.587
1973	-0.401**	-2.47	-35.316**	-2.01	-37.768**	-2.12	-33.950*	-1.84	-0.482**	-2.24	8.794***	4.68	61	0.000	0.585
1974	-0.523***	-3.70	-27.381	-1.60	-30.231*	-1.71	-29.144	-1.62	-0.333	-1.36	8.691***	4.74	63	0.000	0.564
1975	-0.580***	-3.66	-28.636	-1.47	-30.744	-1.55	-34.028*	-1.74	-0.075	-0.26	8.157***	4.20	65	0.000	0.505
1976	-0.551***	-3.03	-33.921*	-1.73	-36.099*	-1.81	-39.760**	-2.03	-0.084	-0.31	8.232***	4.07	66	0.000	0.529
1977	-0.495***	-3.01	-35.679*	-1.82	-35.987*	-1.76	-41.779**	-2.08	-0.028	-0.09	8.537***	4.12	66	0.000	0.529
1978	-0.553***	-3.06	-35.193*	-1.74	-37.807*	-1.79	-46.302**	-2.16	0.052	0.17	8.731***	3.99	65	0.000	0.520
1979	-0.602***	-3.28	-38.091*	-1.84	-39.028*	-1.78	-48.623**	-2.20	0.133	0.38	8.162***	3.67	66	0.000	0.509
1980	-0.645***	-3.48	-42.266**	-2.02	-44.521**	-2.01	-52.689**	-2.41	0.101	0.29	7.037***	3.25	66	0.000	0.501
1981	-0.626***	-3.50	-42.776**	-2.03	-45.446**	-2.04	-53.376**	-2.35	0.058	0.16	7.067***	3.17	66	0.000	0.467
1982	-0.387	-1.62	-45.440**	-2.00	-47.332*	-1.95	-59.860**	-2.50	0.054	0.13	8.792***	3.51	66	0.000	0.439
1983	-0.477**	-2.34	-45.429*	-1.82	-46.294*	-1.71	-61.213**	-2.41	0.164	0.33	8.702***	3.28	66	0.000	0.427
1984	-0.464**	-2.11	-47.850*	-1.77	-45.301	-1.50	-62.917**	-2.38	0.383	0.58	9.947***	3.35	66	0.000	0.409
1985	-0.680**	-2.02	-55.798**	-2.19	-52.708*	-1.93	-63.724**	-2.50	0.245	0.52	7.992***	2.91	66	0.000	0.445
1986	-0.875**	-2.38	-57.210**	-2.25	-59.676**	-2.21	-59.983**	-2.28	-0.085	-0.23	7.191***	2.83	65	0.000	0.463
1987	-0.677*	-1.73	-62.937**	-2.34	-63.843**	-2.26	-67.467**	-2.51	-0.124	-0.36	9.483***	3.65	66	0.000	0.506
1988	-0.702*	-1.70	-58.444**	-2.11	-58.095**	-2.03	-65.953**	-2.37	-0.147	-0.37	11.838***	4.72	67	0.000	0.516
1989	-0.689	-1.63	-60.794**	-2.16	-62.654**	-2.18	-66.418**	-2.36	-0.298	-0.73	12.772***	5.00	66	0.000	0.547
1990	-0.335	-1.17	-69.062**	-2.57	-63.227**	-2.28	-62.886**	-2.14	-0.241	-0.68	13.747***	6.88	67	0.000	0.599

Table 3. Political Instability and Equity Market Development, 1976-2003

This table presents the results of cross-sectional OLS regressions in which stock market capitalization/GDP measures are the dependent variables and instability measures, legal origin dummies, constructed trade share, and log GDP per capita are independent variables. The German Civil Law dummy is the omitted dummy variable. Panel A uses the Alesina-Perotti instability index, which runs through 1982, as the independent measure of instability. Although their SPI index and its underlying source data end in 1982, we regress outcomes for subsequent years to see if it has continuing predictive value. There were no Socialist Law countries with available SPI data. Panel B uses the same measure of stock market capitalization/GDP and uses Banks' measure of political instability, which has observations running through 2003. Banks' data has observations for socialist law countries in most years; for 1983-1991, there were no Socialist Law countries with data on all variables. We construct a index of decaying influence of prior years' instability (as described in Table 1 and in the text.) Table B uses a 1% decay rate on Banks' instability. In the Appendix we construct similar indices of decaying influence, one with a 5% rate and another with a 10% rate. Results are similar. T-s
*** indicates significantce at the .01 level, ** indicates significance at the the .05 level, and * indicates signifcance at the .10 level.

Panel A: Stock market capitalization/GDP (via Beck, Demirgüç-Kunt, and Levine's measure) as predicted by political instability (via SPI), legal origin, trade and log GDP per capita

Year of Data	SPI Index		French Civil Law		Common Law		Scandinavian Civil Law		Constructed Trade Share		Log of GDP per capita				
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Obs	p value	R-squared
1976	-0.007	-0.58	0.020	0.23	0.206	1.61	-0.115	-1.47	0.000	-0.14	0.029	0.51	17	0.056	0.431
1980	-0.005*	-1.77	0.003	0.04	0.239*	1.95	-0.111	-1.50	-0.002	-0.94	0.061***	2.88	29	0.008	0.418
1981	-0.005*	-1.95	-0.013	-0.17	0.205*	1.91	-0.112	-1.54	-0.004*	-1.97	0.064***	3.78	36	0.001	0.423
1982	-0.005*	-1.90	-0.010	-0.11	0.221*	1.98	-0.108	-1.31	-0.001	-0.61	0.063***	3.71	37	0.000	0.451
1983	-0.005**	-2.07	-0.018	-0.21	0.204*	1.90	-0.099	-1.12	-0.002	-1.12	0.067***	4.16	40	0.000	0.481
1984	-0.005**	-2.23	-0.055	-0.59	0.165	1.47	-0.105	-1.12	-0.004**	-2.11	0.072***	4.30	40	0.000	0.501
1985	-0.005**	-2.45	-0.127	-1.00	0.090	0.65	-0.190	-1.45	-0.003	-1.39	0.078***	4.93	40	0.000	0.520
1986	-0.006***	-2.98	-0.155	-1.05	0.094	0.59	-0.240	-1.54	-0.005*	-1.80	0.099***	5.96	42	0.000	0.530
1987	-0.007***	-3.17	-0.177	-1.00	0.074	0.39	-0.273	-1.54	-0.006*	-1.97	0.106***	5.42	44	0.000	0.519
1988	-0.007***	-2.94	-0.219	-1.07	0.012	0.05	-0.260	-1.30	-0.007*	-1.98	0.101***	4.48	43	0.000	0.465
1989	-0.007**	-2.63	-0.307	-1.21	-0.081	-0.30	-0.319	-1.31	-0.008*	-1.79	0.110***	4.23	43	0.000	0.474
1990	-0.007**	-2.27	-0.244	-1.14	-0.026	-0.11	-0.269	-1.34	-0.008*	-1.88	0.094***	3.93	44	0.000	0.447
1991	-0.007**	-2.42	-0.129	-0.79	0.088	0.47	-0.194	-1.22	-0.007*	-1.98	0.086***	3.68	44	0.000	0.394
1992	-0.008**	-2.23	-0.078	-0.50	0.170	0.98	-0.206	-1.35	-0.007***	-3.04	0.091***	4.07	47	0.000	0.408
1993	-0.009	-1.56	-0.045	-0.23	0.298	1.28	-0.191	-1.03	-0.007*	-1.97	0.101***	3.11	49	0.003	0.297
1994	-0.012	-1.58	-0.026	-0.12	0.297	1.12	-0.164	-0.81	-0.008**	-2.13	0.091**	2.38	48	0.010	0.237
1995	-0.009*	-1.92	-0.073	-0.30	0.195	0.74	-0.165	-0.71	-0.009***	-2.68	0.088**	2.66	51	0.001	0.251
1996	-0.009*	-1.84	-0.072	-0.25	0.206	0.66	-0.158	-0.55	-0.009**	-2.46	0.123**	3.46	51	0.000	0.264
1997	-0.008**	-2.04	-0.129	-0.34	0.135	0.35	-0.131	-0.33	-0.009**	-2.16	0.150***	4.83	53	0.000	0.356
1998	-0.007*	-1.96	-0.180	-0.37	0.053	0.11	-0.167	-0.33	-0.007	-1.50	0.181***	6.10	54	0.000	0.427
2000	-0.004	-0.89	-0.148	-0.25	0.125	0.21	0.106	0.14	0.002	0.23	0.254***	6.26	54	0.000	0.414
2003	-0.002	-0.58	-0.177	-0.43	0.077	0.18	-0.158	-0.37	-0.007*	-1.69	0.166***	6.16	51	0.000	0.379

Panel B: Stock market capitalization/GDP (via Beck, Demirgüç-Kunt, and Levine's measure) as predicted by political instability (via Banks-based 1% decay index), legal origin, trade and log GDP per capita

Year of Data	One-Percent Thirty-Year Political Instability Decay Index		French Civil Law		Common Law		Scandinavian Civil Law		Socialist Law		Constructed Trade Share		Log of GDP per capita				
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Obs	p value	R-squared
1983	-0.007***	-2.73	-0.078	-0.96	0.168	1.52	-0.177**	-2.18			0.004***	14.12	0.052***	2.89	37	0.000	0.743
1984	-0.007**	-2.35	-0.099	-1.05	0.139	1.12	-0.197**	-2.10			0.005***	10.41	0.058***	3.42	37	0.000	0.773
1985	-0.008*	-2.02	-0.183	-1.46	0.073	0.51	-0.306**	-2.60			0.008***	11.40	0.066***	3.73	37	0.000	0.847
1986	-0.011*	-1.89	-0.213	-1.54	0.086	0.52	-0.390***	-2.78			0.010***	9.72	0.088***	4.38	39	0.000	0.849
1987	-0.013*	-1.81	-0.259	-1.31	0.049	0.22	-0.494**	-2.33			0.014***	9.04	0.088***	3.38	39	0.000	0.861
1988	-0.013	-1.62	-0.362	-1.53	-0.074	-0.27	-0.569**	-2.19			0.016***	8.60	0.081**	2.70	38	0.000	0.858
1989	-0.013*	-1.97	-0.508**	-2.27	-0.269	-1.05	-0.672***	-2.77			0.009***	8.65	0.101***	4.27	38	0.000	0.803
1990	-0.011**	-2.48	-0.239	-1.16	-0.003	-0.01	-0.358	-1.68			0.002***	2.83	0.100***	4.37	44	0.000	0.476
1991	-0.013***	-2.73	-0.081	-0.48	0.162	0.82	-0.235	-1.45			0.001**	2.67	0.092***	4.02	44	0.000	0.432
1992	-0.009***	-3.01	-0.088	-0.59	0.149	0.86	-0.258*	-1.75	-0.226	-1.39	0.001*	1.97	0.085***	4.08	51	0.000	0.412
1993	-0.011**	-2.24	-0.085	-0.50	0.292	1.29	-0.245	-1.49	-0.244	-1.30	0.002***	2.91	0.091***	2.83	53	0.000	0.332
1994	-0.012**	-2.03	-0.086	-0.44	0.309	1.17	-0.230	-1.23	-0.321	-1.57	0.003***	3.52	0.082**	2.32	54	0.000	0.314
1995	-0.012**	-2.26	-0.067	-0.32	0.233	0.89	-0.295	-1.35	-0.321	-1.51	0.003***	2.79	0.092***	3.08	59	0.000	0.325
1996	-0.016**	-2.40	-0.029	-0.11	0.277	0.90	-0.267	-0.99	-0.263	-1.01	0.003***	2.77	0.119***	3.76	60	0.000	0.353
1997	-0.012**	-2.35	-0.061	-0.18	0.218	0.60	-0.216	-0.58	-0.177	-0.51	0.003*	1.78	0.162***	6.21	71	0.000	0.413
1998	-0.009**	-2.03	-0.117	-0.26	0.108	0.24	-0.252	-0.53	-0.192	-0.43	0.002	1.43	0.195***	7.02	74	0.000	0.461
1999	-0.008	-1.33	-0.176	-0.37	0.105	0.21	-0.165	-0.29	-0.253	-0.52	0.002*	1.68	0.236***	6.89	74	0.000	0.469
2000	-0.007	-1.02	-0.200	-0.35	0.081	0.14	-0.059	-0.08	-0.286	-0.49	0.002	1.61	0.260***	7.07	74	0.000	0.440
2001	-0.007	-1.22	-0.128	-0.25	0.110	0.21	-0.045	-0.08	-0.210	-0.41	0.001	0.86	0.226***	7.26	72	0.000	0.443
2002	-0.008	-1.47	-0.093	-0.25	0.106	0.28	-0.114	-0.28	-0.224	-0.60	0.000	0.35	0.163***	5.56	73	0.000	0.377
2003	-0.011**	-2.02	-0.150	-0.41	0.043	0.12	-0.217	-0.56	-0.277	-0.74	0.001	0.86	0.159***	6.31	68	0.000	0.417

Table 4. Changes in Political Instability as Predicting Recent Financial Development

This table presents the results of cross-sectional OLS regressions in which Beck, Demirgüç-Kunt, and Levine's 2000 measure of Stock Market Capitalization/GDP divided by Beck, Demirgüç-Kunt, and Levine's 1990 measure of Stock Market Capitalization/GDP is the dependent variable. The ratio of the (political instability decay index in the year 2000 to its value in the year 1990) minus 1, is the principal variable of interest. We control for log GDP per capita, trade, and latitude. In a robustness check, we also control for the ratio of log GDP per capita in 2000 to log GDP per capita in 1990. Robust standard errors appear below each coefficient in brackets. *** means significance at the .01 level, ** means significance at the .05 level, and * means significance at the .10 level.

	DV: (Levine Stock Market Capitalization/GDP 2000)/(Levine Stock Market Capitalization/GDP 1990)			
Independent Variable	Model 1	Model 2	Model 3	Model 4
Increase in political instability (as measured by: ((Political instability decay index 2000/ Political instability decay index 1990) - 1)	-1.146 **	-1.117 **	-1.166 **	-1.049 **
	[0.554]	[0.501]	[0.542]	[0.472]
Log of GDP per capita 1990		-0.247		-0.347
		[0.341]		[0.366]
Constructed trade share		-0.009 *	-0.009 *	-0.003
		[0.004]	[0.005]	[0.005]
Latitude		2.320	0.846	1.823
		[3.862]	[2.660]	[3.759]
Increase in economic development (as measured by Log of GDP per capita 2000/ Log of GDP per capita 1990)			-7.265	-17.571
			[21.372]	[21.252]
Political Instability 1990 base effect (note that this is negative because of collinearity with the main variable of interest)				0.147 **
				[0.060]
Obs	44	44	44	44
p value	0.045	0.121	0.127	0.037
R-squared	0.052	0.078	0.073	0.213

Table 5. Political Instability, Equity Market Development, and Corporate Law Indices

This table presents the results of cross-sectional OLS regressions in which Stock Market Capitalization/GDP is the dependent variable and political instability, via a 1% decay index based on Banks' instability measure, two frequently used measures of corporate law quality prominent in the finance literature, legal origin dummies, constructed trade share, and log GDP per capita are independent variables. The German Civil Law dummy is the omitted dummy variable, and t-statistics appear to the right of each coefficient. Panel A uses the Anti-Self-Dealing index from Djankov et al. (2008), and Panel B uses the revised anti-director rights index (updated ADRI) (also from Djankov et al. (2008)). Banks' data has observations for socialist law countries in most years; for 1983-1991, there were no Socialist Law countries with data on all variables. Statistical significance is assessed based on robust standard errors. *** indicates significance at the .01 level, ** significance at the .05 level, and * significance at the .10 level.

Panel A: Stock market capitalization/GDP (via Beck, Demirgüç-Kunt, and Levine's measure) as predicted by political instability (via Banks-based 1% decay index), Anti-Self Dealing Index, legal origin, trade and log GDP per capita

Year of Data	One-Percent Thirty-Year Political Instability Decay Index		Anti-Self-Dealing Index from Djankov et al. (2008)		French Civil Law		Common Law		Scandinavian Civil Law		Socialist Law		Constructed Trade Share		Log of GDP per capita				
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Obs	p value	R-squared
1983	-0.008***	-2.76	0.197	1.19	-0.065	-0.80	0.112	1.15	-0.180**	-2.14			0.004***	15.57	0.052***	3.10	37	0.000	0.753
1984	-0.009**	-2.54	0.206	1.25	-0.074	-0.79	0.083	0.73	-0.198**	-2.06			0.005***	11.12	0.057***	3.60	36	0.000	0.786
1985	-0.010**	-2.15	0.191	1.21	-0.159	-1.24	0.015	0.10	-0.306**	-2.48			0.008***	11.93	0.064***	3.70	36	0.000	0.855
1986	-0.013*	-2.03	0.376**	2.12	-0.180	-1.24	-0.027	-0.16	-0.391**	-2.59			0.010***	10.57	0.080***	4.29	38	0.000	0.863
1987	-0.014*	-1.86	0.520**	2.32	-0.248	-1.27	-0.115	-0.52	-0.503**	-2.35			0.014***	9.66	0.078***	3.21	39	0.000	0.873
1988	-0.015	-1.68	0.558**	2.14	-0.349	-1.54	-0.251	-0.97	-0.579**	-2.29			0.016***	9.11	0.069**	2.48	38	0.000	0.868
1989	-0.014*	-1.99	0.466*	2.02	-0.499**	-2.31	-0.418*	-1.75	-0.681***	-2.86			0.010***	9.57	0.090***	3.96	38	0.000	0.818
1990	-0.012**	-2.36	0.582**	2.34	-0.258	-1.40	-0.230	-1.17	-0.396**	-2.04			0.002***	4.51	0.082***	3.49	43	0.000	0.547
1991	-0.015**	-2.54	0.569**	2.14	-0.098	-0.67	-0.062	-0.38	-0.271*	-1.84			0.002***	4.27	0.072***	2.94	43	0.000	0.505
1992	-0.013***	-2.76	0.539**	2.23	-0.051	-0.37	0.017	0.13	-0.294**	-2.16	-0.253*	-1.85	0.002***	3.73	0.086***	3.46	47	0.000	0.544
1993	-0.016**	-2.27	0.788**	2.09	-0.033	-0.20	0.098	0.57	-0.298*	-1.80	-0.298*	-1.73	0.003***	4.11	0.087**	2.25	49	0.000	0.476
1994	-0.018**	-2.21	0.889**	2.08	-0.037	-0.20	0.090	0.44	-0.293	-1.54	-0.449**	-2.06	0.004***	5.91	0.074*	1.74	50	0.000	0.459
1995	-0.017**	-2.49	0.820**	2.30	-0.043	-0.20	-0.006	-0.03	-0.322	-1.47	-0.493**	-2.15	0.004***	5.62	0.058	1.56	53	0.000	0.461
1996	-0.020**	-2.48	0.829**	2.23	-0.004	-0.01	0.046	0.17	-0.295	-1.06	-0.445	-1.61	0.004***	5.34	0.090**	2.27	53	0.000	0.465
1997	-0.017***	-2.74	0.561**	2.11	-0.019	-0.05	0.115	0.33	-0.234	-0.61	-0.326	-0.92	0.004***	4.97	0.136***	4.02	59	0.000	0.521
1998	-0.015**	-2.50	0.373*	1.68	-0.059	-0.13	0.094	0.21	-0.269	-0.55	-0.285	-0.64	0.003***	4.79	0.185***	5.32	59	0.000	0.541
1999	-0.015**	-2.02	0.491*	1.79	-0.111	-0.23	0.009	0.02	-0.183	-0.31	-0.382	-0.81	0.003***	3.57	0.219***	5.17	59	0.000	0.496
2000	-0.014*	-1.71	0.494	1.62	-0.135	-0.23	-0.025	-0.04	-0.076	-0.10	-0.423	-0.75	0.002***	2.80	0.242***	5.35	59	0.000	0.456
2001	-0.013*	-1.87	0.436	1.66	-0.095	-0.19	0.047	0.10	-0.063	-0.10	-0.338	-0.67	0.002**	2.61	0.207***	5.48	59	0.000	0.470
2002	-0.013*	-2.00	0.266	1.16	-0.080	-0.22	0.110	0.31	-0.130	-0.32	-0.321	-0.89	0.001**	2.25	0.144***	3.95	59	0.000	0.417
2003	-0.015**	-2.49	0.332	1.58	-0.150	-0.41	0.018	0.05	-0.236	-0.60	-0.379	-1.04	0.002***	2.88	0.138***	4.68	58	0.000	0.498

Panel B: Stock market capitalization/GDP (via Beck, Demirgüç-Kunt, and Levine's measures) as predicted by political instability (via Banks-based 1% decay index), the updated antidirector rights index, legal origin, trade and log GDP per

Year of Data	One-Percent Thirty-Year Political Instability Decay Index		Revised ADRI (from Djankov et al. (2008))		French Civil Law		Common Law		Scandinavian Civil Law		Socialist Law		Constructed Trade Share		Log of GDP per capita				
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Obs	p value	R-squared
1983	-0.007**	-2.59	0.031	1.19	-0.051	-0.60	0.148	1.44	-0.187**	-2.26			0.004***	17.88	0.055***	2.90	37	0.000	0.753
1984	-0.009**	-2.35	0.042	1.36	-0.058	-0.60	0.112	0.97	-0.209**	-2.17			0.005***	11.37	0.061***	3.43	36	0.000	0.790
1985	-0.010*	-2.02	0.076**	2.31	-0.121	-0.95	0.025	0.18	-0.329**	-2.73			0.008***	13.16	0.073***	4.24	36	0.000	0.871
1986	-0.014*	-1.97	0.088**	2.55	-0.120	-0.86	0.036	0.24	-0.414***	-2.89			0.011***	11.42	0.097***	5.27	38	0.000	0.873
1987	-0.014*	-1.78	0.101	2.38	-0.182	-0.92	-0.019	-0.09	-0.529**	-2.45			0.015***	10.07	0.096***	3.86	39	0.000	0.877
1988	-0.014	-1.64	0.114**	2.33	-0.272	-1.16	-0.152	-0.58	-0.608**	-2.32			0.017***	9.47	0.089***	3.10	38	0.000	0.873
1989	-0.014*	-1.99	0.100***	2.82	-0.428*	-1.92	-0.338	-1.39	-0.705***	-2.90			0.010***	10.14	0.107***	4.93	38	0.000	0.828
1990	-0.012**	-2.36	0.080**	2.03	-0.193	-0.96	-0.075	-0.36	-0.399*	-1.95			0.002***	4.39	0.104***	4.45	43	0.000	0.516
1991	-0.014**	-2.59	0.078*	1.85	-0.033	-0.20	0.091	0.52	-0.274*	-1.80			0.002***	4.08	0.094***	3.96	43	0.000	0.474
1992	-0.012***	-2.92	0.064	1.57	-0.013	-0.09	0.155	0.99	-0.289**	-2.08	-0.092	-0.47	0.002***	3.88	0.098***	3.91	47	0.000	0.494
1993	-0.015**	-2.34	0.101*	1.70	0.030	0.18	0.301	1.49	-0.295*	-1.89	-0.039	-0.17	0.003***	4.50	0.110***	2.85	49	0.000	0.427
1994	-0.017**	-2.21	0.119*	1.93	0.043	0.22	0.318	1.34	-0.292	-1.62	-0.161	-0.66	0.004***	5.93	0.102**	2.40	50	0.000	0.419
1995	-0.016**	-2.46	0.090*	1.94	0.014	0.06	0.229	0.93	-0.358	-1.60	-0.305	-1.29	0.004***	5.05	0.084**	2.34	53	0.000	0.414
1996	-0.018**	-2.43	0.085*	1.79	0.053	0.20	0.291	0.99	-0.327	-1.18	-0.256	-0.91	0.004***	4.64	0.117***	3.03	53	0.000	0.421
1997	-0.017***	-2.78	0.072*	1.73	0.056	0.16	0.260	0.73	-0.268	-0.70	-0.171	-0.47	0.004***	4.78	0.164***	5.65	59	0.000	0.499
1998	-0.015**	-2.53	0.046	1.20	-0.011	-0.02	0.192	0.43	-0.291	-0.60	-0.184	-0.40	0.003***	4.47	0.202***	6.82	59	0.000	0.531
1999	-0.015**	-2.01	0.061	1.28	-0.045	-0.09	0.139	0.28	-0.212	-0.36	-0.249	-0.50	0.003***	3.19	0.242***	6.42	59	0.000	0.483
2000	-0.013*	-1.71	0.069	1.30	-0.065	-0.11	0.098	0.17	-0.110	-0.15	-0.287	-0.48	0.002**	2.52	0.266***	6.75	59	0.000	0.448
2001	-0.013*	-1.84	0.064	1.37	-0.032	-0.06	0.151	0.29	-0.095	-0.16	-0.217	-0.41	0.002**	2.28	0.228***	6.81	59	0.000	0.462
2002	-0.013*	-1.97	0.049	1.30	-0.035	-0.10	0.164	0.44	-0.156	-0.38	-0.245	-0.64	0.001**	2.10	0.157***	4.21	59	0.000	0.416
2003	-0.015**	-2.44	0.055	1.46	-0.098	-0.27	0.092	0.25	-0.264	-0.68	-0.288	-0.75	0.002***	2.72	0.153***	5.51	58	0.000	0.494

Table 6. Country Fixed Effects

This table presents the results of panel regressions with country-level fixed effects and year dummies. The dependent variable in in the first model is the World Bank's measure of stock market capitalization to GDP. In the second model the dependent variable is Beck, Demirgüç-Kunt, and Levine's Stock Market Capitalization/ GDP (1976-2003). We use the Banks-based index of political instability, with the index decaying, as described in Table 1 and in the paper's text. The instability measure is significant in both country fixed effects models.
Robust standard errors appear below each coefficient in brackets. Note: *** means significance at the .01 level, ** means significance at the .05 level, and * means significance at the .10 level. The data from Banks is available until 2003. The stock market data is available back to 1988 in model 1 and back to 1976 in Model 2. Hence, the models account for all available data.

	DV: Stock Market Capitalization/GDP (1988-2003)		DV: Beck, Demirgüç-Kunt, and Levine's Stock Market Capitalization/ GDP (1976-2003)	
Independent Variable	Model 1		Model 2	
One Percent Political Instability Decay Index	-2.725	***	-0.007	**
	[0.562]		[0.003]	
Log GDP per capita	11.906		0.124	*
	[10.683]		[0.068]	
Obs	996		1311	
Number of countries	85		81	
Country fixed effects included	Yes		Yes	
Year fixed effects included	Yes		Yes	
p value	0.000		0.000	
R-squared (within)	0.191		0.323	

Table 7. Alternative Indicator for External Market Capitalization

This table presents the results of cross-sectional OLS regressions using La Porta et al.'s (2006) measures of external market capitalization. Model 1 uses the SPI index, which runs until 1982, to measure instability; Model 2 uses the Banks data (in a decay index described in Table 1), which run until 2003. Instability is significant in both models. Robust standard errors appear below each coefficient in brackets. *** indicates significance at the .01 level, ** significance at the .05 level, and * significance at the .10 level.

	DV: (External Market Capitalization/GDP) average for Years 1996-2000 from La Porta et al. (2006)	DV: (External Market Capitalization/GDP) average for Years 1996-2000 from La Porta et al. (2006)
Independent Variable	Model 1	Model 2
SPI Index	-0.007 **	
	[0.003]	
One Percent Political Instability Decay Index		-0.015 **
		[0.006]
French Civil Law	-0.084	-0.047
	[0.289]	[0.256]
German Civil Law	0.127	0.162
	[0.296]	[0.268]
Scandinavian Civil Law	0.017	-0.019
	[0.337]	[0.321]
Constructed Trade Share	-0.005	-0.001
	[0.005]	[0.003]
Log GDP per capita	0.143 ***	0.156 ***
	[0.035]	[0.032]
Number of countries	41	43
p value	0.000	0.001
R-squared (within)	0.442	0.463

Table 8. Political Instability, Income Inequality, and Agricultural Conditions

This table presents the results of an OLS regressions in which the SPI Index is the dependent variable and the size of the middle class, ethnic fractionalization, Frankema's measure of land inequality, geographic attractiveness for different cash crops, extreme mean temperature, and legal origin serve as independent variables. For the size of the middle class, we use Perotti's (1996) measure of the size of the middle class (third and fourth quintiles) as a percentage of national income. Robust standard errors appear below the coefficients. *** indicates significance at the .01 level, ** significance at the .05 level, and * significance at the .10 level.

	DV: Political Instability					
Independent Variable	(1)	(2)	(3)	(4)	(5)	(6)
Size of the Middle Class	-108.061 ***	-80.645 ***	-102.295 ***	-107.074 ***	-90.800 ***	-126.322 ***
	[24.891]	[26.863]	[31.007]	[34.481]	[23.386]	[28.466]
Ethnic fractionalization		12.608 **	-0.123	2.238	-2.873	-3.878
		[5.900]	[4.110]	[5.305]	[4.273]	[4.007]
Frankema land inequality (theil)			13.831 *	11.452	10.174	14.751 **
			[8.019]	[7.198]	[6.234]	[6.996]
Rice export/total agricultural exports in 1975			26.667 **	22.011 **	25.108 **	25.316 **
			[12.541]	[8.802]	[11.411]	[11.617]
Sugar export/total agricultural exports in 1975			-9.945	-11.607	-8.826	-12.105
			[7.164]	[8.328]	[7.661]	[8.218]
Cocoa bean plus cocoa powder export/total agriculural exports in 1975			31.541 ***		24.859 ***	36.494 ***
			[9.157]		[6.594]	[7.548]
Coffee export/total agricultural exports in 1975			-30.397 **	-18.093		-30.762 **
			[13.242]	[13.176]		[13.334]
Tobacco export/total agricultural exports in 1975			-4.290	-10.773	0.223	-6.913
			[11.215]	[14.051]	[12.278]	[13.601]
Mean temperature above 32 degrees Celsius			12.911 ***	10.322 ***	10.360 ***	12.561 ***
			[3.137]	[2.929]	[3.281]	[2.818]
French Civil Law			3.923			
			[2.584]			
Common Law			-1.490			
			[2.263]			
Scandinavian Civil Law			1.702			
			[1.308]			
Obs	64	64	53	53	53	53
p value	0.000	0.000	0.000	0.000	0.000	0.000
R-squared	0.221	0.276	0.618	0.465	0.490	0.575

Note: land inequality comes from Frankema (2006); mean temperature above 32 degrees Celsius comes from Van de Viliert (1999), and crop data comes from FAO Trade Yearbook (1977).

Table 9. Instrumented Political Instability

Panel A. In this table we present a two-stage least squares models with the instruments for political instability from Model 6 of Table 8. The financial development outcomes are the dependent variables and the instrumented political instability index (again, using Model 6 of Table 8), legal origin dummies, constructed trade share, and log GDP per capita are the independent variables. For the first model, where we look at multiple years of financial development, we control for the start-of-period (Year 1965) Log of GDP per capita. Robust standard errors appear below the coefficients. *** indicates significance at the .01 level, ** significance at the .05 level, and * significance at the .10 level.

Independent Variable	DV: Average of Bank Loans/GDP for Years 1965-1982	DV: Bank Loans/GDP for Year 1965	DV: Bank Loans/GDP for Year 1970	DV: Bank Loans/GDP for Year 1975	DV: Stock Market Capitalization/GDP for Year 1988	DV: Beck, Demirgüç-Kunt, and Levine's Stock Market Capitalization/GDP for Year 1988
Instrumented SPI Index	-0.773 *	-0.971 ***	-0.902 *	-0.983 **	-1.435 **	-0.015 **
	[0.398]	[0.374]	[0.466]	[0.471]	[0.588]	[0.006]
French Civil Law	-40.135 **	-29.776 *	-40.184 **	-22.915	-22.272	-0.169
	[17.391]	[15.716]	[17.144]	[18.293]	[21.225]	[0.186]
Common Law	-44.714 **	-35.317 **	-45.540 ***	-28.180	-7.285	0.004
	[18.151]	[15.069]	[16.567]	[18.846]	[22.751]	[0.204]
Scandinavian Civil Law	-43.932 **	-27.440 *	-38.796 **	-34.065 *	-27.084	-0.260
	[17.557]	[15.111]	[16.775]	[18.397]	[20.693]	[0.179]
Constructed Trade Share	-0.243	-0.433 ***	-0.399 **	-0.091	-1.045 ***	-0.009 **
	[0.275]	[0.154]	[0.196]	[0.300]	[0.396]	[0.004]
Log GDP Per Capita	7.271 ***	6.191 ***	7.450 ***	8.066 ***	9.460 ***	0.089 ***
	[2.251]	[2.055]	[2.073]	[2.178]	[2.689]	[0.028]
Obs	44	44	47	51	35	36
p value	0.000	0.000	0.000	0.000	0.000	0.000
R-squared	0.597	0.590	0.608	0.495	0.461	0.406

Panel B. In this table we present a two-stage least squares models with the instruments for political instability from Model 6 of Table 8. The financial development outcomes are the dependent variables and the instrumented IMD Perceived Political Stability Index (again, using instruments from Model 6 of Table 8), legal origin dummies, constructed trade share, and start-of-period log GDP per capita serve as the independent variables. Robust standard errors appear below the coefficients. *** indicates significance at the .01 level, ** significance at the .05 level, and * significance at the .10 level. For the IMD index, higher values indicates higher perceived political stability; hence higher perceived stability should be positively associated with stronger financial development, as it is, at the .01 level.

Year of Data	Dependent Variable Used	Using Instrumental Variables from Column (6) of Table 8 to Predict Perceived Political Stability		Other Control Variables (legal origin dummies, constructed trade share, and log GDP per capita) included			
		Coefficient	t-statistic		Obs	p value	R-squared
Average of 1999-2003	Stock Market Capitalization/GDP from Beck et al.	0.147***	3.25	Yes	30	0.001	0.335
Average of 1999-2004	Bank Credit/GDP	12.072***	3.93	Yes	30	0.000	0.645

We used the "estat overid" command in STATA after running two-stage least squares models through Panels A and B of Table 9. In the first model of Panel A, the resulting chi-square is 10.2252 (p = 0.2496). In the second model of Panel A, the result chi-square is 5.70686 (p = 0.6800). In the third model of Panel A, the resulting chi-square is 7.35047 (p = 0.4993). In the fourth model of Panel A, the resulting chi-square is 4.01532 (p = 0.8557). In the fifth model of Panel A, the resulting chi-square is 7.49792 (p = 0.4840). In the sixth model of Panel A, the result chi-square is 5.99024 (p = 0.6483). In Model 1 of Panel B, the resulting chi-square is 8.60226 (p = 0.3770). In Model 2 of Panel B, the resulting chi-square is 6.37901 (p = 0.6049). Hence, the null assumption of valid instruments cannot be rejected by this test.

Using the "estat firststage" command in STATA, we find that the instruments are particularly strong for explaining the stock market development results in Model 5 of Panel A (F-statistic = 17.70; p = 0.000); Model 6 of Panel A (F-statistic of 16.67; p = 0.000); and Model 1 of Panel B (F-statistic of 105.40; p = 0.000); and the debt market development results in Model 2 of Panel B (130.86; p = 0.000). The first-stage F-statistics for the earlier Model 1-4 of Panel are somewhat weaker: the R^2 in the first stage for those models is relatively high (greater than 0.46), but the F statistics do not surpass the usual rule of thumb of 10. Finally, the results of the post-estimation "estat endogenous" tests in STATA for every model of Table 9 suggest that political instability can in fact be treated as largely exogenous. Only in Models 5 and 6 of Panel A are the p values for the robust score chi-square below 0.10, and even in those two models the p values are not less than 0.05. In all other models the p values are between 0.26 and 0.91.

Figure 1. Financial Development and Political Instability, Basic Relationship without Controls.

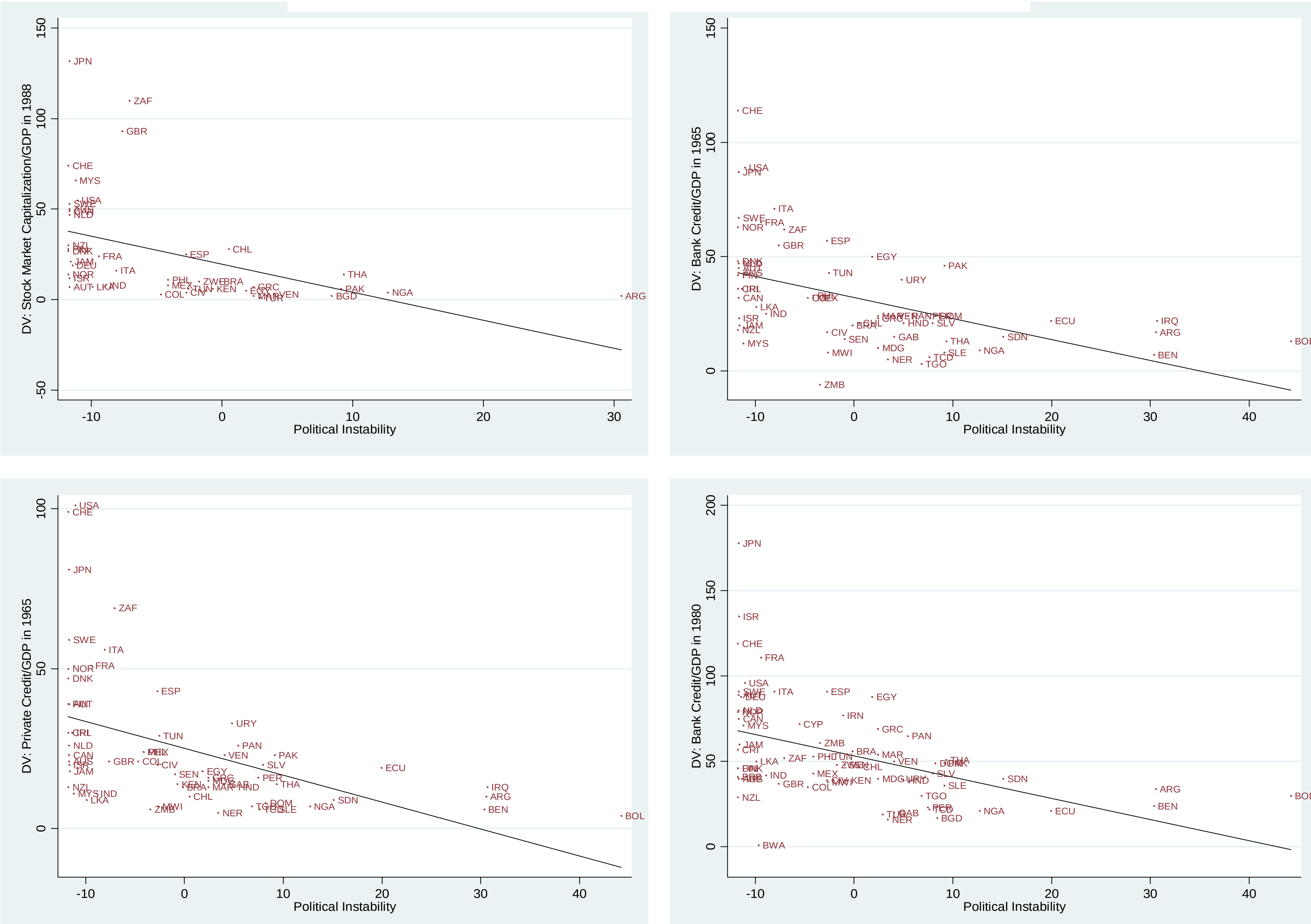

Figure 2. Possible Channels to Financial Backwardness.

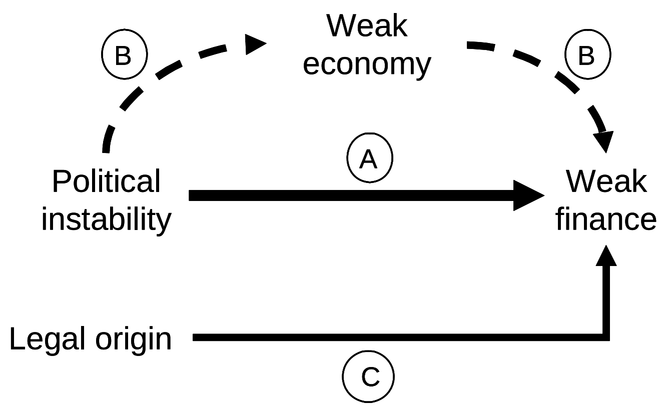

Figure 3. Interactions Between Political Instability and Institutional Quality.

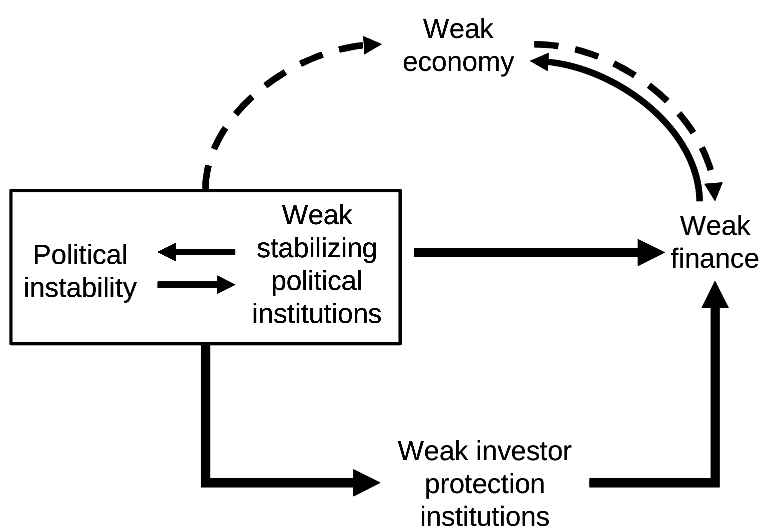

Figure 4: Global Trends in Violent Conflict, 1946-2004.

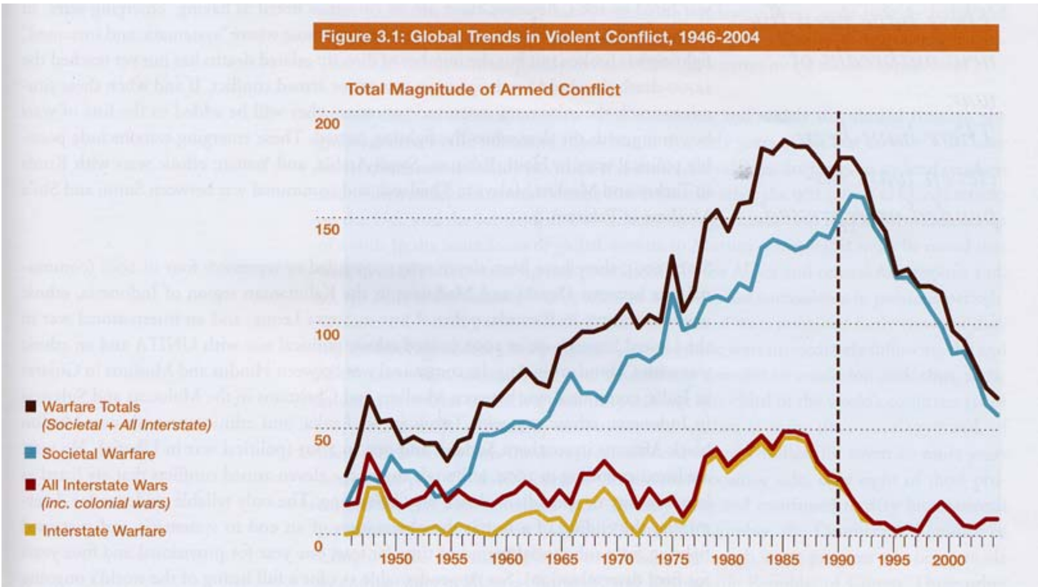

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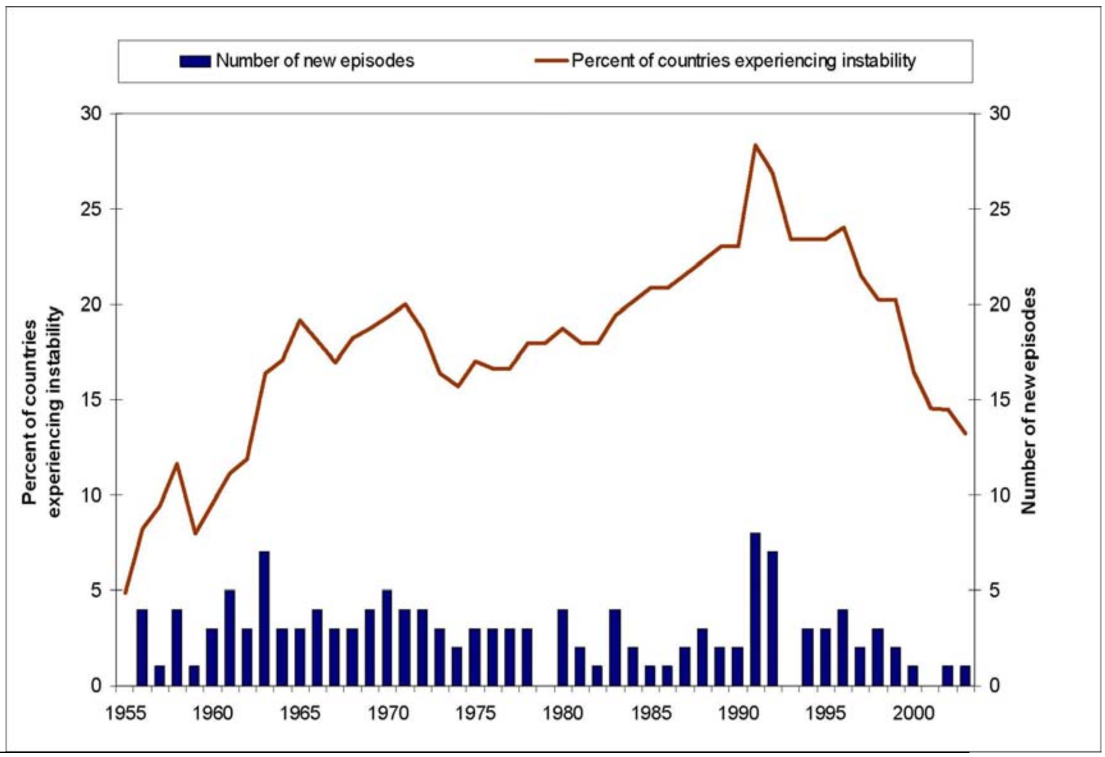
Figure 5: Incidence and Prevalence of Political Instability Worldwide, 1955-2003.



Jack A. Goldstone, Robert H. Bates, Ted Robert Gurr, Michael Lustik, Monty G. Marshall, Jay Ulfelder, and Mark Woodward, *A Global Forecasting Model of Political Instability*, paper prepared for the Annual Meeting of American Political Science Association, Washington, DC, September 1-4, 2005. Reproduced with permission.