

Does Democracy Promote the Rule of Law?

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Abstract

Recent studies find that democratization increases economic growth. However, these studies do not always consider the channels through which democratization raises growth. This study considers whether or not democratization improves institutions that have often been argued to increase economic growth. Utilizing a panel dataset from 1984 to 2007 for 127 countries, we examine whether democratization promotes the rule of law. We generally find a positive influence from democratization upon the rule of law although effects are strongest for sub-Saharan Africa.

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1. Introduction

Many recent studies point to the importance of institutions for determining economic growth rates or long run income levels.¹ Acemoglu et al. (2005) and Acemoglu (2010) provides surveys of this literature. North (1990) defines institutions as "the humanly devised constraints that shape human interaction". He asserts that institutions that secure property rights promote economic development and enhance growth. One specific component of institutions that has received attention is adherence to the rule of law. By "rule of law" we mean a judicial regime in which no one is above the law and everyone is equal before the law (Dicey, 1885).² People abide by judicial decisions and people's day-to-day actions are generally lawful in that they do not conflict with legal codes. One reason to focus on the rule of law is its importance in protecting property and promoting productive activities. Rodrik, Subramanian and Trebb (2004) state that in principle the rule of law captures more elements describing institutional quality than do other measures.

But a question then arises as to why the rule of law is more prevalent in some countries than in others. Some have examined the effects of long-run historical factors such as the degree of European influence or geographic factors. These factors then determine the type of institutions which then affect long-run income levels. See Hall and Jones (1999) and Acemoglu et al. (2001) as examples. This paper takes a different approach, examining more contemporaneous factors. Specifically, we consider whether

¹ On the other hand, others suggest that growth and accumulation of human capital cause institutional improvement. See Glaeser et al. (2004) and Lipset (1960) for further details.

² Also, see Stiglitz and Hoff (2004).

democracy promotes the rule of law and so whether democratization could then improve the rule of law. Recent studies show that democratization raises economic growth³. Our study explores whether promoting the rule of law could be a channel that explains these findings. Some, on the other hand, have argued that the best way to improve these institutions is under a benevolent dictator as opposed to a chaotic democracy. Olson et al. (1996) claim that an autocrat with a long time horizon has incentives to protect property rights because this increases the future income of his domain which in turn increases his tax collections. Although long-lasting democracies, they claim, usually better secure property rights than do new democracies or autocracies, instituting a longstanding democracy is not feasible for an existing autocratic country. Under this view, democratizations could then even worsen property rights, at least in the short run. But is this the case or might democracy be better able to promote the rule of law both in the short run and in the long run? Barro (1996) considered a similar issue. He found that although greater maintenance of the rule of law is favorable to economic growth, he found little evidence that democracy promotes the rule of law.

Our study differs from Barro's in several dimensions. First, Barro utilizes cross-sectional variation to identify long-run patterns. A possible problem from this specification could arise from omitted variable bias and reverse causality (Giavazzi and Tabellini, 2005). We will take steps below to more greatly mitigate these concerns. Second, a cross-country sample does not utilize the within country variation in the degree of democracy or adherence to the rule of law. A panel can exploit such variation. This

³ See Papaioannou and Siourounis (2008), Giavazzi and Tabellini (2005), Rodrik and Wacziarg (2005) for examples and surveys of this literature.

could be especially important given Barro's application. His democracy variable comes from 1975 whereas his rule of law variable is from 1980. Therefore, he does not incorporate the post-1980 events into his analysis, including the large number of countries that democratized when the Soviet Union fell. Our study considers a panel dataset, spanning 1984 to 2007, and so considers these changes. Use of a panel also allows us to examine timing issues which were not feasible given Barro's approach. We consider short versus long-run effects of democratization upon the rule of law. Perhaps democratization initially supports the rule of law but then the effects of democratization turn negative as rent-seeking becomes more frequent. Or, perhaps effects become stronger as democracies solidify. As a final distinction from Barro's work, we examine whether the effects of democratization upon the rule of law differ across regions such as Sub-Saharan Africa and Latin America. Any differences could be a sign that cultures and histories that differentiate global regions have a significant role on the association between the two.

The remainder of the paper is organized as follows: Section 2 presents an overview of the different studies on political and economic institutions. Section 3 provides a detailed description of our data. The methodology is outlined in Section 4. The results are presented in Section 5. Finally, section 6 summarizes the core findings of this study and provides suggestions for future work.

2. Literature Review

One research path has been to examine the role of economic institutions in economic growth and development. Acemoglu, Johnson, and Robinson (2001), Hall and

Jones (1999), Engermann and Sokoloff (1997), Dollar and Kraay (2000), and many others show that institutions enhance economic growth.

On the other hand, there has been a long debate on whether political institutions, namely a democratic versus an authoritarian regime, influence economic growth. Earlier studies do not show unambiguous associations between democracy and growth as findings are mixed.⁴ Rodrik (1997) did not find any significant impact of democratization on growth. Similarly, Przeworski et al. (2000) did not find any differences on long-run growth across political regimes. On the other hand, more recent studies such as Papaioannou and Siourounis (2008), Giavazzi and Tabellini (2005) and Rodrik and Wacziarg (2005) employ panel data techniques and show a positive impact of democratization upon economic growth. However, such findings then beg the question as to why democratizations could increase economic growth.

Another focus of study has been to examine the association between political and economic institutions. Tavares (2005) shows that democratization followed by rapid trade liberalization decreases the level of corruption. According to Musila (2007), authoritarian countries are slightly less prone to corruption than countries at intermediate levels of democracy, but beyond the threshold level of democracy, more democratic countries are less prone to corruption.⁵ Rivera-Batiz (2002), using a theoretical model, shows that stronger democratic institutions influence governance by constraining the actions of corrupt executives. On the other hand, Sunde, Cervellati and Fortunato (2008) examine the role of interactions between political environment and inequality for the rule of law.

⁴ See Przeworski and Limongi (1993) for a survey of this earlier literature.

⁵ See also Rock (2008) where he claims an inverted U relationship between the age of democracy and corruption.

Their results suggest that democracy is associated with a better rule of law when inequality is lower.

Our study complements these studies by exploring the impact that political regimes have on the rule of law. Rodrik, Subramanian and Trebb (2004) state that in principle the rule of law captures more elements determining institutional quality than do other measures, and so we focus on the rule of law in this paper. Moreover, these institutional measures tend to be correlated with one another but important differences can also arise. Figure 1 presents examples where movements in the rule of law and corruption (another widely studied measure of institutional quality) greatly differ.⁶

3. Data

We analyze annual data from 127 countries during the period 1984-2007. Since our measure of the rule of law starts from 1984 we cannot include earlier years. We use annual data to most precisely pinpoint changes in political regime. The democracy and rule of law variables are described below. We also follow the classification from the World Bank in order to construct regional dummies⁷. Appendix 1 provides definitions and sources of the data used in this study. Table 1 lists all the countries included in our sample and categorizes their political regime according to Papaioannou and Siourounis (2008).

⁶ The variable of corruption is compiled by Political Risk Services. This variable is constructed on a scale from 0 to 6, with higher numbers indicating less corruption.

⁷ These are East Asia and Pacific (EAP), Europe and Central Asia (ECA), Latin America and Caribbean (LAC), Middle East and North Africa (MENA), South Asia (SE), Sub-Saharan Africa (SSA), and Western Europe (WE).

The rule of law [RULE] variable comes from the International Country Risk Guide^{8,9} from Political Risk Services. This index reflects the degree to which the citizens of a country are willing to accept established institutions to make and implement laws and adjudicate disputes (Sunde et al., 2008). The ratings range from 0 to 6, where higher scores indicate “sound political institutions, a strong court system, and provisions for an orderly succession of power” (see Knack and Keefer, 1995). According to the ICRG, the rule of law (law and order) is constructed as follows:

“Law and Order are assessed separately, with each subcomponent comprising zero to three points. The Law subcomponent is an assessment of the strength and impartiality of the legal system, while the Order sub-component is an assessment of popular observance of the law. Thus, a country can enjoy a high rating — 3 — in terms of its judicial system, but a low rating — 1 — if it suffers from a very high crime rate or if the law is routinely ignored without effective sanction (for example, widespread illegal strikes).”

Democracy [DEM] is measured using the dataset compiled by Papaioannou and Siourounis (2008). They do not proffer any specific definition of democracy but they do

⁸ As an alternative measure for rule of law, we use the World Bank indicator (World Governance Indicators – WGI, rule of law) even though it only begins from 1996 (see Kaufmann et al., 1999). This variable ranges from -2.5 to +2.5 where higher numbers denote better institutional quality.

⁹ While the ICRG and WGI variables have been widely used in the literature, Glaeser et al. (2004) consider these variables as inappropriate to measure institutions such as adherence to the rule of law. They claim that these variables are outcome measures and do not measure institutions North (1990 defines as *constraints* on human interactions. More to the point, they claim that these measures do not code dictators, who choose to respect property rights, any differently than democratically elected leaders who have no choice but to respect them. However, we consider these variables as suitable proxies for institutions because they still provide constraints within society. For example, an impartial judicial system whose rulings are enforced still provide constraints for the majority of the populace.

list four criteria that a democracy must have: free, competitive, and fair elections; elections involving actual transfers of power (as opposed to the military, for example, setting aside the results of an election); broad suffrage in that no sizable part of the population is excluded as in South Africa during apartheid; and political stability. Using a variety of sources, PS then ascertain when a democratization episode occurred. They further divide democracies into “full” and “partial” ones. A full democracy occurs when Freedom House designates the country as fully free AND when the country has a Polity IV score above seven (on a -10 to +10 scale) on its composite democracy index.¹⁰ See Marshall and Jaegggers (2004) for a description of the Polity IV political data.¹¹ Like PS, DEM_{it} equals one for country i at time t if country i fully or partially democratized during or before time t . We will later examine full and partial democracies individually. Finally, the democracy must be sustained to be classified as such according to PS. Zimbabwe, for example, is not considered to be a democracy pre-1987 because it suffered a reversal during that year.

We use the PS classification for several reasons. First, it can be used in a panel since DEM varies over time. Second, the incorporation of both the Freedom House and

¹⁰ The Freedom House measure contains two indices: political rights (opportunities to vote in free and competitive elections) and civil liberties (freedom of speech, of the press, etc). Each is measured on a 1 to 7 integer scale with higher values denoting less political freedom. Freedom House then averages these measures to classify countries as free (2.5 or below), partially free (3.0 to 5.0), and not free (5.5 and above).

¹¹ The PS data only extends to 2003. Therefore, in order to complete the missing years in our sample period we follow their methodology. Most countries do not change status since few countries lost democratic freedoms after 2003. However, an exception is Thailand that suffered a coup in 2007. Therefore, we removed Thailand from the set of democracies. We also removed Pakistan since the country underwent serious political challenges throughout our sample period.

the Polity IV measure creates a stricter standard of democracy thereby diminishing the presence of ambiguous cases. On the other hand, this classification is still built upon these commonly used measures in the growth literature. Not only are they familiar within this literature but their widespread use makes comparisons with other studies more straightforward. One disadvantage, of course, of using dummy variables relative to a measure that can take on several values is that dummy variables are more coarse measures of political change. However, a benefit is that political classifications of countries are often given as “either/or” and so dummy variables get to the heart of this dichotomy. It is also not clear how one should interpret indices such as the Freedom House indices. Does the 1-7 Freedom House categorization of political rights merely represent ordinal groupings? Or, can its increments be taken literally in that, for example, the move from 3 to 2 represents the same degree of movement towards democracy as a move from 4 to 3? If the Freedom House categorization is merely ordinal, then the direct use of these indices to measure change becomes more problematic. Therefore, due to these concerns we focus on the PS classification but will later consider other measures as robustness checks such as the Freedom House average of the civil liberties and political rights sub-indices, denoted as FH, and the Polity IV measure, denoted as POLITY. Use of these additional variables can also account for temporary democratic episodes that use of the PS measures miss (since a country must remain democratic to be classified as a democracy).

Table 2 contains descriptive statistics and correlations across the key variables. Another control variable included in many specifications is the natural log of real GDP per capita [INCOME], taken from the Penn World Tables, version 6.3. This variable is

used as a proxy for the level of economic development. Other control variables included as robustness checks will be discussed below.

5. Methodology

This study will closely follow the empirical specification provided by Tavares (2007) who examined the effect of democratization upon corruption. We apply this approach since rule of law and corruption are measures of institutional quality although not necessarily measures of the same aspect of institutions. Our specification is:

$$\text{RULE}_{it} = \beta_{0i} + \beta_{1t} + \beta_2 X_{it} + \beta_3 \text{RULE}_{it-1} + \beta_4 \text{DEM}_{it} + \varepsilon_{it} \dots\dots\dots (1)$$

where i and t subscripts denote country and year, respectively. The intercepts β_{0i} and β_{1t} indicate country and year fixed effects in order to capture the time-invariant country-specific heterogeneity and the unobservable country-invariant time effects. RULE is the rule of law and DEM denotes democratization. Matrix X will initially be empty but we later control for other explanatory variables. The residual has zero mean but not necessarily identical variance across countries. We also allow for arbitrary correlation over time and so calculate standard errors as in Arellano (1987)¹².

Of note in (1) is that the right hand side contains the lagged dependent variable. We include the lag for two reasons. First, there is likely to be persistence in the rule of law even after controlling for time-invariant factors. Second, RULE is bounded between

¹² Bertrand et al. (2004) find that use of such standard errors adequately accounts for serial correlation in the residuals.

zero and six, making it impossible for countries at zero to move downward or for countries at six to move upwards. Therefore, future movements in RULE depend on its current value and so we control for $RULE_{it-1}$ when examining $RULE_{it}$. Unfortunately, the presence of a lagged dependent variable increases the potential for biased coefficient estimates.¹³ Therefore, we also employ a dynamic GMM estimation model, the Arellano and Bond (1991) first-difference GMM estimator, to test the robustness of our findings where RULE and DEM are considered endogenous variables. We use the second lags of these variables in levels to serve as instruments for the first differences.¹⁴ We compute robust standard errors that allow for heteroskedasticity and serial correlation within countries.

Equation (1) represents our baseline specification. However, to address other issues we also consider the following extensions.

5.1 *Full versus Partial Democratizations*

Our democratization variable DEM does not distinguish full democracies from partial ones. However, do further democratic reforms improve the rule of law relative to initial steps toward democracy? Barro (1996) shows that partial democracies have higher growth rates than do full democracies. To address this issue, we construct two new

¹³ However, Judson and Owen (1999) report that biases from the inclusion of lagged dependent variables on the right hand side are less than 3% when using more than 20 periods. We have over 20 years of data for many of the countries included in our sample. Nickell (1981) shows that biases from the inclusion of lagged dependent variables on the right hand side are small when the time dimension goes to infinity. Tavares (2007) does not utilize dynamic GMM methodologies.

¹⁴ We also consider the second and third lags in a subsequent specification. We do not consider further lags to keep the approach parsimonious and because Hansen test statistics approach one, raising concerns about the appropriateness of so many instruments in the model.

variables. DEM_P equals one for partial democracies only and DEM_F equals one only for full democracies. The baseline specification becomes:

$$\text{RULE}_{it} = \beta_{0i} + \beta_{1t} + \beta_2 X_{it} + \beta_3 \text{RULE}_{it-1} + \beta_4 \text{DEM_P}_{it} + \beta_5 \text{DEM_F}_{it} + \varepsilon_{it} \dots\dots(2)$$

If β_4 and β_5 differ, then the association between democracy and RULE depends upon the degree of democracy.

5.2 Regional Differences

It is also possible that the effects of democratization upon the rule of law differ across regions. Rodrik and Wacziarg (2005) find that democratization is more beneficial upon growth in sub-Saharan Africa. Sylwester (2008) suggests that the effects of democracy on growth are more positive in newer countries. Englebert (2000) argues that many sub-Saharan African countries lack pre-colonial antecedents. Without traditional power structures to serve as a political foundation, leaders must curry favor with various groups to stay in power. In some cases, this could involve weakening (or eliminating) property rights for some groups so as to benefit others. A recent example is Robert Mugabe in Zimbabwe, confiscating land from some groups to give to his supporters. Such policies politically benefit the leader in the short run at the expense of long-run growth. Davidson (1982) provides a similar diagnosis as to why Africa has not grown as quickly as other regions but also argues that democratization could provide a partial solution as popular legitimacy could give leaders sufficient political power so that they do not need to engage in such rent seeking activities. Perhaps leaders could then be better

able to enact institutional reforms that could further benefit the economy.¹⁵ If so, then the effects of democratization upon the rule of law could be stronger for sub-Saharan African than for other regions. Effects upon the rule of law could also differ for Eastern European countries as their transitions occurred alongside the fall of the Soviet Union as well as various economic reforms. Table 3 presents the change in the rule of law score for democratized countries in each region of the world between 1984 and 2007. It also reports the average rule of law score for the 5 years before and after democratization (or for fewer years for the countries where data is not available). For some countries the rule of law score went up and for others down. However, it appears that the effects of democratization have greater improvements on the rule of law score for the Sub-Saharan African countries.

To formally account for such differences, we include interactive terms in (1) that include DEM and the respective regional dummies. These regions are: East Asia and Pacific (EAP), Latin America and Caribbean (LAC), South Asia (SA), and Sub-Saharan Africa (SSA).¹⁶

¹⁵ On the other hand, Zakaria (2003) claims that “although democracy has in many ways opened up Africa politics and brought people liberty, it has also produced a degree of chaos and instability...” Such effects are likely to diminish the rule of law.

¹⁶ With these groupings, the control group appears to be quite disjoint containing the Middle East and North Africa, Eastern Europe and Central Asia, Western Europe, the United States, and Canada. However, of these regions democratizations only occurred within Eastern Europe and Central Asia and so the coefficients on the interactive terms compare how democratization affects growth in the respective regions to that in Eastern Europe and Central Asia.

5.3 *Short run versus long run effects*

It is also possible that the effects of democratization upon the rule of law are not instantaneous but appear gradually over time. Therefore, we construct seven dummy variables based on the variable DEM: DPRIOR, DT, D1, D2, D3, D4, D5, and D6. DPRIOR = 1 in the year before a democratization occurs. DT = 1 in the year when DEM first goes to one from zero. D1 = 1 for the first year after democratization. D2, D3, D4, and D5 equal one for the second, third, fourth, and fifth years (respectively) following democratization. D6 equals one for the sixth year following democratization as well as for all subsequent years. We consider D6 to capture the long run effect of democratization upon the rule of law. DPRIOR controls for changes to the rule of law in the year prior to democratization. Its inclusion is important if breakdowns in the rule of law precede nontrivial political changes. The coefficient upon DT captures the change in the rule of law during the transition year. The coefficients on D1 through D5 consider short-run changes to the rule of law in the years following democratization. If democratization quickly improves the rule of law, then at least some of these coefficients are expected to be positive.

6. Results

Table 4 presents results from our initial specifications. Column 1 provides the simplest specification, omitting all control variables including the fixed effects which are then added in columns 2 and 3. Our baseline specification is given in column 4 as both country and year fixed effects are included but no other controls besides income. Column 5 shows that the results in column 4 are robust to the removal of the formerly socialist

countries. Giavazzi and Tabellini (2005) remove these countries due to the very special circumstance, namely the fall of the Soviet Union, accompanying democratization.

Columns 6-8 include other control variables such as GOV and POPG. POPG denotes the annual population growth rate from the World Bank's World Development Indicators. GOV denotes the share of government purchases in GDP and is from the Penn World Tables.¹⁷ Coefficient estimates upon DEM remain robust.

To put the coefficient estimates into context, consider a country that democratizes. A coefficient estimate of 0.10 predicts that RULE increases by 0.1 points. This change is not large since RULE ranges from zero to six with a standard deviation of 1.5. However, this standard deviation partly stems from cross-country variation. Taking the standard deviation of RULE for each country and then averaging across countries produces a value of 0.7. That is, 0.7 is the average standard deviation of RULE for each country. Therefore, a change in RULE of 0.1 represents just under 15% of the average within country standard deviation. This magnitude suggests that democratization can positively affect the rule of law but that one should not expect large improvements in the rule of law. Democratization helps but is not a silver bullet. Similar magnitudes are found in many of the below robustness checks.

In order to make control and treatment groups more similar we remove in Table 5 the countries that were always democratic throughout our sample period, 1984 – 2007. Therefore, the coefficients on DEM now compare the effect of democracy on the rule of

¹⁷ We also added the adult (over 15) literacy rate as an additional control to account for human capital. We do not report these results since many observations are missing. Nevertheless, the coefficient on DEM remains robust.

law in countries that became democratic relative to those countries remaining nondemocratic. The previous specifications compared the change in the rule of law in countries that became democratic after 1984 to those that did not, either because they were already democratic or because they remained nondemocratic. Columns one through four of Table 5 present these results. The coefficient estimates upon DEM remain positive and statistically significant. Columns five and six repeat these specifications but again exclude all the former socialist countries.

We further check the robustness of our results by replacing the variable DEM with two alternative measures of democracy, namely the Freedom House [FH] and the Polity IV [POLITY] indices. The estimates in Table 6 confirm the findings of our earlier analysis. More specifically, in columns one through three, where the FH index is employed to measure democracy, the results show a positive relationship between democracy and the rule of law. Columns four through six of Table 6 use the POLITY measure of democracy. The estimated coefficient on POLITY remains positive but only significant at the 10% level.

As described above, a potential problem is the presence of right hand side endogenous variables. Therefore, we utilize dynamic GMM estimation as discussed earlier. Table 7 presents the results of this methodology. In both specifications the only regressors are the values of *lagged* rule of law, democratization and per capita GDP. The results of the GMM estimation remain robust. The coefficient on DEM is positive and significant. However, the GMM estimates of the coefficients are much larger than our OLS estimates, nearly equaling the average within-country standard deviation. One possibility for the increase in coefficient estimates is due to reverse causation. Perhaps

autocratic countries although ones with some adherence to a rule of law are less likely to become democratic as citizens have less desire to change the status quo. If the GMM methodology better “removes” (relative to least squares estimation) this negative effect from rule of law to democracy then one would expect coefficient estimates to increase in magnitude.

Therefore, we generally find a positive association between democracy and the rule of law. Countries that became democratic during the sample period experienced improvements in the rule of law relative both to countries that never underwent a change in status (that is, remained democratic or nondemocratic) and to only those countries that remained nondemocratic (as in Table 5). These results are robust to excluding former socialist countries and so findings are not solely driven by the fall of the Soviet Union. However, to what extent are these findings applicable to specific regions and how fast does the rule of law improve following democratization? Do partial democracies affect the rule of law differently than do full democracies? We now consider these issues.

Table 8 presents the results under the specification in equation (2). We replace DEM with two variables, DEM_P (partial democracies) and DEM_F (full democracies) and re-run some of the above specifications. In column 1, when we do not control for period effects, the coefficient estimates for both variables are positively and statistically significant. Column two includes both period and country fixed effects. The coefficient estimate on DEM_F is positive and significant at the 5% level. On the other hand, the parameter estimate for DEM_P is positive but only significant at the 10% level. However, the magnitudes of the coefficient estimates of both variables are very similar. Therefore, we find some evidence that the rule of law improves when countries first

become democratic even if democratic reforms are not complete. Evidence is statistically stronger that countries becoming fully democratic improve the rule of law. Nevertheless, no evidence arises that the effect upon the rule of law differs between the set of countries becoming partially democratic and those becoming fully democratic. That is, the benefit of democratic reforms appears to come with initial reforms, regardless of whether the democracy becomes stronger.

These results also better explain a finding from Assiotis and Sylwester (2010). They do not find a strong association between (their analogs of) DEM_F and RULE. However, the focus of that study was upon full democratization and so their control group consisted of three groups of countries: countries that remained nondemocratic, countries that were fully democratic throughout the sample period, and countries that became only partially democratic. The similarity of coefficient estimates between DEM_F and DEM_P in Table 8 provides a possible explanation for their results. With little difference between the two groups of democracies, relegating partial democracies to the control group would then lessen differences between full democracies and the control group.

To explore whether the effects of democratization upon the rule of law are parallel across regions we interact DEM with regional dummies. Columns one through five of Table 9 present various specifications allowing for such interactions. Alternatively, in column six we run our baseline specification only for sub-Saharan African countries. We find that democratization in East Asia and Pacific and sub-Saharan Africa promotes the rule of law more than it does in other regions. This finding, at least for sub-Saharan Africa, possibly stems from the fact that institutions in these countries

were relatively weaker prior to democratization and so perhaps political reforms sparked reforms along other dimensions as well. Our results can directly speak to findings from past studies suggesting that the benefits of democratization are higher in African countries compared to the rest of the world as in Rodrik and Wacziarg (2005) and Sylwester (2009). Our results suggest that these findings for sub-Saharan Africa can be explained by the greater improvement in the rule of law within this region following democratization.

We also considered a combination of the two extensions described above. We again allow for differences across regions but replace DEM with DEM_F and DEM_P. Perhaps some types of democratizations are more beneficial in some regions versus others. Table 10 presents the results which somewhat support this contention. In all specifications DEM_F is always positive and significant either at the 5% or 10% level. However, coefficient estimates on the DEM_P – SSA interactive terms are large in magnitude and statistically significant. Perhaps in Africa, unlike other regions, the marginal benefits of democratization upon the rule of law come from the initial steps toward democratization.

The above analysis generally finds evidence that democratization promotes the rule of law. However, a weakness of this specification is that the effects of democratization on the rule of law are constrained to be instantaneous. But this might not be the case. For example, democratization could initially have negative effects due to transitional costs. Effects could then become stronger as democracies solidify. Of course, other possibilities exist as well. To address these issues, we apply the model of section

5.3. Table 11 provides the results. As expected, coefficients estimates across these dummies differ.

While for the first year following democratization (D1) the coefficient estimates are positive and statistically significant, the results appear inconclusive for the three subsequent years. For some specifications the estimates appear to have a positive and significant effect and for others insignificant. It is not clear what these results imply. One possibility is that the rule of law truly improves following democratization but then deteriorates for some reason as the democracy solidifies. Another possibility, however, is that the increase in the rule of law is not “real” but stems from a presumption of the analysts creating the RULE index that the rule of law should be higher when a country becomes democratic. Perhaps such analysts give the benefit of the doubt in such cases when information is limited as to the changes that democratization creates. In the following years, if more information become available that changes to the rule of law are small or nonexistent, then their re-assessments better reflect this fact. If the latter interpretation is correct, then the fifth year following democratization provides the strongest evidence as to when improvements in the rule of law actually occur. Nevertheless, in all specifications our results suggest that the benefits of democratization upon the rule of law are greater in the long-run as the democracy solidifies. This finding is in line with empirical findings from past research. More specifically, Papaioannou and Siourounis (2008) provide empirical evidence suggesting that the merits of democratization on growth come in the long-run. It is also less likely that the larger coefficient on D6 stems from analyst error since, presumably, assessments should become more accurate with a longer time frame of information to identify changes.

7. Conclusions

This paper investigates the association between democratization and rule of law. We generally find that the rule of law increases as countries become democratic although results are strongest for sub-Saharan Africa and the East Asian-Pacific region. Utilizing various panel data techniques we find that democratization does, indeed, positively influence the rule of law. Additionally, our results reveal that the timing of the effects of democratization upon the rule of law also matters. More specifically, we show that adherence to the rule of law strengthens as democracies consolidate. These results can help us better understand why democratization could raise economic growth as found in the recent literature. Nevertheless, investigating other channels through which democracy could affect growth is warranted.

Also, we take a step further and explore whether the effects of democratization on the rule of law differ across regions. We find the strongest effects of democratization upon the rule of law for sub-Saharan African countries. Moreover, we also find evidence that even partial democratic reforms can improve the rule of law in this region. Many sub-Sahara African countries remain nondemocratic. Our results suggest that democratic reforms in these countries could be particularly beneficial, at least to the extent that the rule of law also increases economic growth rates as found by others. From a policy perspective, sub-Saharan Africa could be a focus of the international community in promoting democratic reforms, since the payoffs to such reforms could be relatively larger in this region than in others. Of course, the devil is in the details. Future work will

consider what aspects of democratic reforms are most conducive to improvements in economic institutions such as the rule of law.

Appendix

Variable Definitions and Sources

GDP: Natural log of GDP per capita adjusted for PPP. Source: Penn World Tables, version 6.3 (Constant prices: Chain Series).

GOV: Annual Government Share of Real GDP per capita. Source: Penn World Tables, version 6.3 (Constant \$).

GPOP: Annual Population Growth. Source: World Bank World Development Indicators CD-ROM (2009 Edition).

LIT: Literacy rates (% of people ages 15 and above). Source: World Bank World Development Indicators CD-ROM (2009 Edition).

RULE: International Country Risk Guide indicator of the rule of law from Political Risk Services, Inc.

POLITY: Polity IV measure of democracy from the Polity IV project from Marshall and Jaggers (2004).

FH: Average of the Freedom House political rights and civil liberties indices. To ease interpretation of the coefficient estimates we reversed the scaling so that a “1” indicates fewest political freedoms and “7” the most. Source: www.freedomhouse.org.

DEM: Dummy variable that equals one for a partial or full democracy and equals zero otherwise. Source: Papaioannou & Siourounis (2008). See Table 1 for their classification. From DEM, we also derive DEM_P and DEM_F. The former equals one only for partial democracies and the latter equals one only for full democracies.

The classification of countries in Table 1 between democratic and authoritarian regimes is taken from Papaioannou and Siourounis (2008).

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Table 1: Regime Classification

No.	Country	Classification by PS	Democratization Event
1	Albania	Democratization: 1992	Partial
2	Algeria	Always Autocracy	
3	Angola	Always Autocracy	
4	Argentina	Always Democracy	
5	Armenia	Democratization: 1998	Partial
6	Azerbaijan	Always Autocracy	
7	Australia	Always Democracy	
8	Austria	Always Democracy	
9	Bahamas	Always Democracy	
10	Bahrain	Always Autocracy	
11	Bangladesh	Democratization: 1991	Partial
12	Belarus	Always Autocracy	
13	Belgium	Always Democracy	
14	Bolivia	Always Democracy	
15	Botswana	Always Democracy	
16	Brazil	Democratization: 1985	Full
17	Brunei	Always Autocracy	
18	Bulgaria	Democratization: 1991	Full
19	Burkina Faso	Always Autocracy	
20	Cameroon	Always Autocracy	
21	Canada	Always Democracy	
22	Chile	Democratization: 1990	Full
23	China	Always Autocracy	
24	Colombia	Always Democracy	
25	Congo, Dem. Rep.	Always Autocracy	
26	Congo, Republic of	Always Autocracy	
27	Costa Rica	Always Democracy	
28	Cote d'Ivoire	Always Autocracy	
29	Croatia	Democratization: 2000	Full
30	Cuba	Always Autocracy	
31	Cyprus	Always Democracy	
32	Czech Republic	Democratization: 1993	Full
33	Denmark	Always Democracy	
34	Dominican Republic	Always Democracy	
35	Ecuador	Always Democracy	
36	Egypt	Always Autocracy	
37	El Salvador	Democratization: 1994	Full
38	Estonia	Democratization: 1992	Full
39	Ethiopia	Democratization: 1995	Partial
40	Finland	Always Democracy	
41	France	Always Democracy	

42	Gabon	Always Autocracy	
43	Gambia, The	Reverse Transition:1994	
44	Ghana	Democratization:1996	Full
45	Greece	Always Democracy	
46	Guatemala	Democratization:1996	Partial
47	Guinea	Always Autocracy	
48	Guinea-Bissau	Always Autocracy	
49	Guyana	Democratization:1992	Full
50	Haiti	Always Autocracy	
51	Honduras	Always Democracy	
52	Hungary	Democratization:1990	
53	Iceland	Always Democracy	
54	India	Always Democracy	
55	Indonesia	Democratization:1999	Partial
56	Iraq	Always Autocracy	
67	Ireland	Always Democracy	
68	Israel	Always Democracy	
69	Italy	Always Democracy	
60	Jamaica	Always Democracy	
61	Japan	Always Democracy	
62	Jordan	Always Autocracy	
63	Kazakstan	Always Autocracy	
64	Kenya	Always Autocracy	
65	Korea, Republic of	Democratization:1988	Full
66	Latvia	Democratization:1993	Full
67	Liberia	Always Autocracy	
68	Libya	Always Autocracy	
69	Lithuania	Democratization:1993	Full
70	Luxembourg	Always Democracy	
71	Madagascar	Democratization:1993	Partial
72	Malawi	Democratization:1994	Partial
73	Malaysia	Always Intermediate	
74	Mali	Democratization:1992	Full
75	Malta	Always Democracy	
76	Mexico	Democratization:1997	Full
77	Moldova	Democratization:1994	Partial
78	Mongolia	Democratization:1993	Full
79	Morocco	Always Autocracy	
80	Mozambique	Democratization:1994	Partial
81	Namibia	Always Democracy	
82	Netherlands	Always Democracy	
83	New Zealand	Always Democracy	
84	Nicaragua	Democratization:1990	Partial

85	Niger	Democratization: 1999	Borderline
86	Nigeria	Democratization: 1999	Partial
87	Norway	Always Democracy	
88	Oman	Always Autocracy	
89	Panama	Democratization: 1994	Full
90	Papua New Guinea	Always Democracy	
91	Paraguay	Democratization: 1993	Partial
92	Peru	Always Democracy	
93	Philippines	Democratization: 1987	Full
94	Poland	Democratization: 1990	
95	Portugal	Always Democracy	
96	Qatar	Always Autocracy	
97	Romania	Democratization: 1990	Full
98	Saudi Arabia	Always Autocracy	
99	Senegal	Democratization: 2000	Full
100	Sierra Leone	Always Autocracy	
101	Singapore	Always Autocracy	
102	Slovakia	Democratization: 1993	Full
103	Slovenia	Democratization: 1992	Full
104	Somalia	Always Autocracy	
105	South Africa	Democratization: 1994	Full
106	Spain	Always Democracy	
107	Sri Lanka	Always Democracy	
108	Sudan	Always Autocracy	
109	Suriname	Democratization: 1991	Partial
110	Sweden	Always Democracy	
111	Switzerland	Always Democracy	
112	Syria	Always Autocracy	
113	Tanzania	Democratization: 1995	Partial
114	Togo	Always Autocracy	
115	Trinidad & Tobago	Always Democracy	
116	Tunisia	Always Autocracy	
117	Turkey	Always Democracy	
118	Uganda	Always Autocracy	
119	Ukraine	Democratization: 1994	Partial
120	United Arab Emirates	Always Autocracy	
121	United Kingdom	Always Democracy	
122	United States	Always Democracy	
123	Uruguay	Democratization: 1985	Full
124	Venezuela	Always Democracy	
125	Yemen	Always Autocracy	
126	Zambia	Democratization: 1991	Partial
127	Zimbabwe	Reverse Transition 1987	

Table 2: Summary Statistics and Correlation Matrices

Panel A: Summary Statistics

Variable	Observations	Mean	Maximum	Minimum	Std. Dev.
Rule	2843	3.65	6	1	1.52
Dem	2946	0.57	1	0	0.49
GDP	2943	8.72	11.38	5.03	1.20
FH	2942	3.46	6	0	1.98
POLITY	2687	2.84	10	-10	3.34

Panel B: Correlation Matrices

Correlation	Rule	Dem	GDP	FH	POLITY
Rule	1.00				
Dem	0.30	1.00			
GDP	0.61	0.32	1.00		
FH	0.43	0.83	0.48	1.00	
POLITY	0.30	0.85	0.34	0.89	1.00

Table 3: Average Rule of Law score and Change in Rule of Law for Democratized Countries between the period 1984-2007

East Asia and Pacific				Europe and Central Asia				Latin America and Caribbean				Sub-Saharan Africa			
Country	A	B	C	Country	A	B	C	Country	A	B	C	Country	A	B	C
Indonesia	2	3.2	1.5	Albania	3.7	2.9	-2.1	Brazil	3.5	4	-1.58	Ethiopia	1.7	4.9	1.7
Korea, R	2.8	2	2	Bulgaria	5	5	-2.5	Chile	4	4.1	1	Ghana	3	2.7	1.5
Mongolia	2.1	3.9	3	Hungary	5	5	-1	El Salvador	1.4	3	0.5	Madagascar	3.2	2.8	-1.5
Philippines	1	1	1.5	Poland	4	5.1	0.5	Guatemala	2.2	2.3	0.5	Malawi	2	3.7	1
Thailand	3.7	4.8	-0.5	Romania	2	3.8	2	Guyana	1	2.8	1	Mali	2	2.8	1
				Armenia*	-	3	-0.1	Mexico	3	2.2	-1	Mozambique	1.7	2.7	0
				Croatia	5	5	0	Nicaragua	2	2.4	3	Niger	2	2	-2
				Czech Rep.*	-	5.7	0	Paraguay	2.4	4	0	Nigeria	3	2.31	1
				Estonia*	-	-	0	Suriname	1	1.7	2	Senegal	5	5	1
				Latvia*	-	-	0.7	Uruguay	3	3	-0.5	South Africa	1.7	3.4	-0.5
				Lithuania*	-	-	0					Tanzania	4	4.9	2
				Moldova*	-	-	0					Zambia	1.9	2.7	2
				Slovakia*	-	5.6	-1.6								
				Slovenia*	0	-	-0.5								
				Ukraine	5	4.6	0								

Note: Columns **A** and **B** denote the average Rule of Law score for the 5 years before and after democratization; or fewer if data is not available
Columns **C** denote the Change in rule of Law (of each country) between the first year and last year in our sample
* Denotes transition countries where data was not available prior democratization
To save space, the values for Iran (MENA) and Bangladesh (SA) are not reported on panel A. However, the corresponding values for each column (A,B,C) are 4.86, 4.66, 2.34 and 1, 2.01, 1.625, respectively.

Table 4.
Panel Data Regressions (annual), 1984-2007
Dependent variable is the rule of law.

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Estimation method</i>	OLS	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect
Lagged RULE		0.84 (0.008) ^{***}	0.84 (0.009) ^{***}	0.84 (0.009) ^{***}	0.84 (0.009) ^{***}	0.84 (0.01) ^{***}
DEM	0.78 (0.05) ^{***}	0.09 (0.04) ^{**}	0.09 (0.04) ^{**}	0.09 (0.04) ^{**}	0.11 (0.04) ^{**}	0.10 (0.04) ^{**}
GDP			0.01 (0.04)	0.01 (0.04)	0.01 (0.05)	(0.02) (0.05)
GOV				-0.002 (0.002)		-0.002 (0.002)
GPOP				0.0005 (0.0002) ^{**}		(0.0005) (0.0002) ^{**}
Constant	3.22 (0.11) ^{***}	0.51 (0.04) ^{***}	0.42 (0.39)	0.33 (0.39)	0.41 (0.43)	0.28 (0.43)
Observations	2836	2710	2707	2566	2386	2368
Country Fixed Effects	NO	YES	YES	YES	YES	YES
Time Fixed Effects	NO	YES	YES	YES	YES	YES
Number of countries	127	127	127	127	114	113
R-squared	0.15	0.94	0.94	0.95	0.95	0.95

White period standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Note: Columns 5 and 6 exclude all the formerly Socialist Countries from our sample.
Columns 2-6 include regional trends to account for dynamic heterogeneity across regions.

Table 5.
Panel Data Regressions (annual), 1984 - 2007
Dependent variable is the rule of law.

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Estimation method</i>	OLS	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect
Lagged RULE		0.83 (0.01)**	0.83 (0.01)**	0.83 (0.01)**	0.83 (0.01)**	0.83 (0.01)**
DEM	0.75 (0.06)**	0.09 (0.04)**	0.09 (0.04)**	0.10 (0.04)**	0.11 (0.05)**	0.11 (0.05)**
GDP			(0.003) (0.051)	0.009 (0.05)	-0.004 (0.05)	0.008 (0.05)
GOV				-0.001 (0.002)		-0.0009 (0.002)
GPOP				(0.0004) (0.000)		0.00003 (0.000)
Constant	3.00 (0.11)**	0.51 (0.06)**	0.48 (0.43)	0.35 (0.45)	0.52 (0.49)	0.36 (0.49)
Observations	1816	1733	1730	1589	1428	1410
Country Fixed Effects	NO	YES	YES	YES	YES	YES
Time Fixed Effects	NO	YES	YES	YES	YES	YES
Number of countries	84	84	84	70	71	70
R-squared	0.92	0.92	0.92	0.91	0.91	0.91

White period standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Note: Columns 1-6 exclude all the countries from our sample that were democratic throughout the sample period. Also, columns 5 and 6 exclude all the formerly Socialist Countries. Columns 2-6 include regional trends to account for dynamic heterogeneity across regions.

Table 6.
Panel Data Regressions (annual), 1984 - 2007
Dependent variable is the rule of law.
Robustness Checks using alternative measures of Democratization

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Estimation method</i>	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect
Lagged RULE	0.84 (0.009)***	0.84 (0.009)***	0.84 (0.009)***	0.84 (0.01)***	0.84 (0.01)***	0.85 (0.01)***
FH	0.02 (0.01)**	0.02 (0.01)**	0.03 (0.01)**			
POLITY				0.005 (0.003)*	0.005 (0.003)*	0.006 (0.003)*
GDP	0.01 (0.04)	0.01 (0.04)	0.01 (0.05)	0.03 (0.05)	0.04 (0.05)	0.01 (0.05)
GOV		-0.002 (0.002)			-0.002 (0.002)	
GPOP		0.0004 (0.000)**			0.0004 (0.000)**	
Constant	0.37 (0.39)	0.44 (0.40)	0.34 (0.43)	0.31 (0.46)	0.19 (0.43)	0.41 (0.50)
Observations	2707	2566	2386	2466	2327	2169
Country Fixed Effects	YES	YES	YES	YES	YES	YES
Time Fixed Effects	YES	YES	YES	YES	YES	YES
Number of countries	127	113	114	121	107	107
R-squared	0.95	0.95	0.95	0.94	0.94	0.94

White period standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Note: Columns 3 and 6 exclude all the formerly Socialist Countries.
All columns include regional trends to account for dynamic heterogeneity across regions

Table 7.
Dynamic GMM regressions (annual), 1984 - 2007
Dependent variable is the rule of law.

	diff-GMM	diff-GMM	diff-GMM	diff-GMM
Lagged RULE	0.66 (0.09)***	0.70 (0.12)***	0.68 (0.07)***	0.69 (0.08)***
DEM	0.67 (0.37)**	0.93 (0.45)**	0.68 (0.32)**	0.88 (0.33)**
GDP	0.24 (0.88)	0.50 (1.22)	0.26 (0.52)	0.17 (0.54)
Lags of Instruments	2	2	2,3	2,3
Period Effects	YES	YES	YES	YES
# of Countries	127	114	127	114
# of Observations	2580	2280	2580	2280
Sargan Test (p-value)	0.84	0.50	0.88	0.94
AR(2) Test (p-value)	0.13	0.27	0.03	0.03

Robust Standard errors in parentheses.

*** and **denote significance at the 1% and 5% levels, respectively

Note: Columns 2 and 4 exclude all the former Socialist Countries

Table 8.
Panel Data Regressions (annual), 1984 - 2007
Dependent variable is the rule of law.

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Estimation method</i>	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect
Lagged RULE	0.84 (0.009)***	0.84 (0.009)***	0.84 (0.009)***	0.83 (0.01)***	0.83 (0.01)***	0.83 (0.01)***
DEM_P	0.09 (0.05)*	0.09 (0.04)*	0.10 (0.05)*	0.09 (0.05)*	0.10 (0.06)*	0.10 (0.05)*
DEM_F	0.10 (0.04)**	0.10 (0.04)**	0.12 (0.04)**	0.09 (0.05)**	0.13 (0.05)**	0.13 (0.05)**
GDP	0.01 (0.04)	0.01 (0.04)	0.01 (0.05)	-0.0009 (0.05)	-0.003 (0.05)	0.01 (0.05)
GOV		-0.002 (0.002)				-0.008 (0.002)
GPOP		0.0005 (0.000)**				0.0003 (0.000)
Constant	0.42 (0.39)	0.33 (0.39)	0.40 (0.43)	0.56 (0.43)	0.52 (0.49)	0.35 (0.50)
Observations	2707	2566	2386	1729	1428	1410
Country Fixed Effects	YES	YES	YES	YES	YES	YES
Time Fixed Effects	YES	YES	YES	YES	YES	YES
Number of countries	127	113	114	84	71	70
R-squared	0.94	0.95	0.95	0.92	0.92	0.91

White period standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Note: Columns 3, 5 and 6 exclude all the formerly Socialist Countries. Columns 4, 5 and 6 exclude all the countries from our sample that were democratic throughout the sample period. All columns include regional trends to account for dynamic heterogeneity across regions.

Table 9.
Panel Data Regressions (annual), Across Regions 1984 - 2007
Dependent variable is the rule of law.

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Estimation method</i>	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect
Lagged RULE	0.85 (0.008)**	0.85 (0.008)***	0.85 (0.008)***	0.85 (0.008)***	0.85 (0.008)***	0.84 (0.02)***
DEM	-0.09 (0.09)	0.01 (0.04)	0.09 (0.04)**	0.06 (0.04)	0.06 (0.03)*	0.14 (0.06)**
GDP	-0.06 (0.04)	-0.003 (0.04)	-0.005 (0.04)	-0.007 (0.04)	-0.007 (0.04)	-0.09 (0.07)
SSA*DEM	0.21 (0.10)**	0.12 (0.06)**				
LAC*DEM	0.08 (0.11)		-0.09 (0.06)			
EAP*DEM	0.22 (0.12)*			0.04 (0.08)		
SA*DEM	0.21 (0.09)**				0.07 (0.03)**	
Observations	2707	2707	2707	2707	2707	717
Country Fixed Effects	YES	YES	YES	YES	YES	YES
Time Fixed Effects	YES	YES	YES	YES	YES	YES
Number of countries	127	127	127	127	127	32
R-squared	0.94	0.94	0.95	0.94	0.94	0.89

White period standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Note: Column 6 only includes sub-Saharan African countries.

Table 10.
Panel Data Regressions (annual), Across Regions 1984 - 2007
Dependent variable is the rule of law.

	(1)	(2)	(3)	(4)	(5)
<i>Estimation method</i>	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect
Lagged RULE	0.84 (0.009)***	0.84 (0.009)***	0.84 (0.009)***	0.84 (0.009)***	0.84 (0.01)***
DEM_F	0.10 (0.05)*	0.09 (0.05)*	0.12 (0.05)**	0.12 (0.05)**	0.14 (0.07)**
DEM_P	-0.008 (0.05)	0.08 (0.05)*	-0.01 (0.08)	0.09 (0.06)	-0.05 (0.09)
GDP	0.003 (0.04)	0.01 (0.04)	0.005 (0.05)	0.01 (0.05)	0.002 (0.05)
DEM_F*SSA	-0.02 (0.08)		-0.04 (0.10)		-0.06 (0.11)
DEM_P*SSA	0.17 (0.08)**		0.18 (0.10)*		0.21 (0.12)*
DEM_F*EAP		0.04 (0.04)		-0.004 (0.08)	-0.02 (0.08)
DEM_P*EAP		0.06 (0.04)		0.01 (0.06)	0.16 (0.10)
Observations	2707	2707	2386	2386	2386
Country Fixed Effects	YES	YES	YES	YES	YES
Time Fixed Effects	YES	YES	YES	YES	YES
Number of countries	127	127	114	114	114
R-squared	0.94	0.94	0.95	0.95	0.94

White period standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Note: Column 5 reports coefficients estimates when we also interact DEM_F and DEM_P with the regional dummies of LAC and SA. To save space, the coefficients of these variables are not reported but available upon request. All these coefficients are statistically insignificant when the only interactive terms are DEM_F*LAC and DEM_P*LAC. All coefficient estimates are insignificant.

Column 3-5 exclude all the formerly Socialist Countries.

All columns include regional trends to account for dynamic heterogeneity across regions

Table 11.
Panel Data Regressions, Across Regions 1984 - 2007
Dependent variable is the rule of law.

	(1)	(2)	(3)	(4)	(5)
<i>Estimation method</i>	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect	Fixed Effect
Lagged RULE	0.84 (0.009)***	0.84 (0.009)***	0.83 (0.01)***	0.85 (0.01)***	0.84 (0.009)***
DPrior	0.06 (0.10)	0.07 (0.11)	0.06 (0.10)	0.07 (0.11)	0.12 (0.12)
DT	0.06 (0.07)	0.06 (0.07)	0.06 (0.07)	0.06 (0.07)	0.13 (0.07)*
D1	0.20 (0.07)***	0.20 (0.07)***	0.20 (0.07)***	0.20 (0.07)***	0.19 (0.08)**
D2	0.11 (0.08)	0.11 (0.08)	0.10 (0.08)	0.10 (0.08)	0.12 (0.09)
D3	0.07 (0.07)	0.07 (0.07)	0.05 (0.07)	0.05 (0.07)	0.15 (0.08)*
D4	0.04 (0.06)	0.04 (0.06)	0.03 (0.06)	0.03 (0.07)	0.06 (0.07)
D5	0.16 (0.06)**	0.16 (0.06)**	0.16 (0.07)**	0.16 (0.07)**	0.23 (0.06)***
D6	0.10 (0.05)**	0.10 (0.05)**	0.10 (0.05)**	0.10 (0.05)**	0.10 (0.05)*
GDP		0.01 (0.04)		0.0006 (0.05)	
Observations	2710	2707	1733	1730	2707
Country Fixed Effects	YES	YES	YES	YES	YES
Time Fixed Effects	YES	YES	YES	YES	YES
Number of countries	127	127	84	84	114
R-squared	0.94	0.94	0.92	0.92	0.94

White period standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Note: Columns 3-4 exclude all the countries from our sample that were democratic throughout the sample period. Column 5 excludes all the formerly Socialist countries.

Figure 1. Rule of Law and Corruption between the period 1984-2007

