Democratization in the Post-Communist World:  Initial Conditions and Policy Choices

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Introduction

As authoritarian systems fell in Central and Eastern Europe and Eurasia, many of the countries that emerged embarked on a process of democratization, or the creation of institutions allowing citizens to choose their political leaders in freely contested elections. While some of these countries were successful in the process, others reverted back to authoritarianism. Why did a group of countries, all starting from roughly the same political conditions, diverge so drastically in reform? Are there societal conditions that are necessary in order for democracy to be born and to survive? Are there choices that leaders and citizens make along the transition path that help or hinder democratic consolidation? Is democracy still a possible outcome for those post-communist countries that are autocratic today, and is there the danger that others will revert back to authoritarianism?

Political scientists have written extensively on the conditions necessary to support democracy. While many works have explored the impact of different factors on the success (and also longevity, breakdown, and buildup) of democracy, only a few have tested these theories on the entire set of post-communist cases. Concerned with either only democratic transition or consolidation (marginalization of actors challenging the legitimacy of democratic institutions), many authors limit their studies to the countries in Latin America and Southern Europe that have achieved higher levels of democracy, or focus on more advanced transitions in Central and Eastern Europe and the Baltics (see for example, Linz and Stepan 1996, Higley, Kullberg and Pakulski 1996, Rose and Mishler 1996, Lijphart and Waisman 1996, Londregan and Poole 1996, Przeworski and Limongi 1997, and Kitschelt et al. 1999). This approach, however, does not answer the question of why other post-communist states, including many of the former Soviet Republics, have diverged from their cohort. While there are some studies that include all of the former communist states, most focus on explaining the effect of politics on economic

The dependent variable in this study is level of democracy, and this paper will utilize a definition of democracy that emphasizes electoral outcomes. Electoral democracies are those that have competing political parties participating in a free and fair election process in which a change of elites is possible. This follows one author’s minimal definition of democracy as, “a system in which parties lose elections” (Przeworski 1991, p. 10). Other definitions add such factors as political participation (Dahl 1971, Huntington 1991), and civil and political liberties (Diamond, Linz and Lipset 1995). While these do factor into a more theoretic notion of democracy, they are more difficult to operationalize and utilize in statistical analysis.¹

The former communist cases are a good sample for testing variables that have been identified to be “requisites” of democracy in previous transitions in Latin America, Southern Europe and Asia. The states that have emerged since 1990 span the range from consolidated democracy to autocracy. Because most of them began the transition to democracy at a relatively advanced stage of development, they present a challenge to arguments that suppose democracy is a natural outcome of increasing wealth. All of the countries have had to undergo simultaneous political and economic reform, adding further complications to the processes of transition and consolidation. Studying the former communist cases allows for testing the already established literature on democratization on a set of countries possessing initial conditions that were not present in the countries previously studied in this literature.

¹ Diamond (1999) presents a useful discussion of the differences between electoral and liberal democracy.
Including policy related variables allows for testing whether choices since the beginning of transition have affected recent outcomes.

This study utilizes the Freedom House political rights index, commonly used by political scientists to measure level of democracy. Multiple regression analysis is used to predict the effect of various social, economic and policy variables on level of democracy. I use data from twenty-seven post-communist countries from 1990-99. Both panel (cross-sectional time-series) and cross-sectional multiple regression analysis are used. While not entirely conclusive, the findings from the panel analysis do suggest that a country’s previous level of democracy, religious tradition, geographical location, and government type can explain the various levels of democracy across this set of countries. The cross-sectional results confirm the strength of the negative relationship between Islam and democracy, while also suggesting that higher levels of economic reform are likely to increase levels of democracy.

**Theory and Literature**

The literature on democratic transition and consolidation is abundant, varied and complex; I do not claim to present every aspect of it here. However, it is possible to characterize variables that commonly appear in discussions of democratization into a few groups. These include economic, cultural, international and political factors. Some of the factors that are discussed as being favorable for democratic consolidation include: a high level of economic development (Lipset 1963, Huntington 1991, Olson 1993, Przeworski et al. 1996, Przeworski and Limongi 1997), a supportive international

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2 The countries included in this study are: Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russia, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. Bosnia and Yugoslavia (Serbia and Montenegro) have been included in regressions when data was available.
environment (Huntington 1991), a parliamentary system (Linz 1990), democratic political culture or prior experience with democracy (Huntington 1991, Putnam 1993, Diamond, Linz and Lipset 1995, Diamond 1999), legitimacy of the regime and its leaders (Linz 1978, Diamond, Linz and Lipset 1995), and ethnic homogeneity (Lipset 1963). Most authors agree that it is a combination of the above factors that contributes to the success or failure of democracy, and admit that no one factor can explain democratization in all cases (Huntington 1991, Przeworski et al. 1996).

**Economic Explanations**

Economic factors can affect democracy through level of wealth, level of reform, or both. First, modernization theory explains that democracy is an outcome of economic development, and that wealthy countries are more likely to sustain democracy once it is established. Seymour Martin Lipset tests his hypothesis that, “the more well-to-do a nation, the greater the chances that it will sustain democracy,” on a set of 50 countries at different levels of democracy (Lipset 1963, p. 31). He finds that higher levels of wealth, industrialization, urbanization, and education increase a country’s chances for democracy to be born and also to survive. Lipset explains that development affects democracy through the changes it brings about in society. A relatively prosperous society, in which wealth is evenly distributed and education is widespread, will have a larger middle class (and thus a smaller lower class) that will both support tolerance and moderation in politics.³

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³ Huntington (1991) also finds a correlation between wealth and democracy, and predicts that transitions to democracy should occur in countries at the middle level of economic development ($1000-3000 per capita GNP), due to the conditions outlined by Lipset, above. Bollen and Jackman (1985), using data from the 1960s, find support for the socioeconomic development argument, although they find that income inequality has no connection to political democracy. Muller (1988) finds a relationship between inequality and democracy. Other studies have confirmed the positive effect of development on democracy, although most are concerned with time periods before the independence of the countries in this study (Bollen 1979).
Przeworski and Limongi (1997) test two aspects of the Lipset hypothesis. The “endogenous” version explains the birth of democracy (transition) as the final stage of development under authoritarianism. As authoritarian countries become wealthier and develop socially, democracy is the outcome. In the “exogenous” version, the persistence of democracy (consolidation) is explained with regard to level of development: democracy dies in poor countries and survives in rich ones. Examining 135 countries over 40 years, they find support only for the exogenous version of the theory; once democracy exists, it will persist in richer countries and is more likely to die in poorer ones.\(^4\) According to these theories, we would expect to find the more wealthy countries among the post-communist states to have consolidated democracy, while democracy will either not have been established in the poorer countries, or will have experienced decline since independence.\(^5\)

A second economic argument is concerned with economic reform (liberalization and privatization), a process which the countries in this study have undertaken at different levels and speeds. Economic reform can either threaten or encourage political reform. Economic reform acts as a threat by creating a class of losers that may want to stall further change. Przeworski argues that market-oriented reforms are “socially costly and politically risky,” as “they hurt large social groups and evoke opposition

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\(^4\) In considering why democracies endure, Przeworski et al. (1996) confirm that democracy is more likely to survive in richer countries, but also find it more likely to survive in countries that are already democratic, experience growth with moderate inflation, have declining inequality, a favorable international climate, and parliamentary institutions.

\(^5\) According to Przeworski and Limongi’s (1997) findings, authoritarian regimes with per capita income of over $6000 and under $1000 are likely to survive, democratic regimes with incomes over $4000 are unlikely to collapse, and democracies with incomes under $1000 are likely to collapse. Countries with incomes between $1000 and $4000 are more unstable, and the survival of democracy depends also upon their level of growth and inflation. Of the countries in this study, none have per capita income below $1000 in 1998, and 15 have per capita incomes above $4000. Of those, 10 can be considered consolidated democracies.
from important political forces. And if that happens, democracy may be undermined or reforms abandoned, or both” (Przeworski 1991, p. 136).

Alternatively, economic reform, via privatization, can encourage democracy. Privatization changes property rights and relations between individuals and between the individual and the state. Private property changes the basis upon which people organize, and can help, especially in divided societies, to reaggregate people based upon class and profession rather than ethnicity or religion. Furthermore, property restructures the relationship between the individual and the state, as it creates autonomous organizations independent of the state which then demand freedom from state control. This ensures a limited role of the state in the economy, while at the same time creating the need for the state to defend property rights. Of the countries in this study, we would expect to find those which have embarked on more rapid and complete strategies of economic reform to have higher levels of democracy than those countries in which reform is slow, stalled, or partial (Hellman 1998).

*Cultural Explanations*

Cultural conditions present at the time of transition can determine whether a particular setting of customs or intellectual traditions is likely to be accepting of democratic reform. One argument claims that a fragmented or polarized society is more likely to experience democracy-threatening conflict based on the advantage of one group over others. Thus, democracy is more frequently found “in more homogenous countries than in countries with a great amount of subcultural pluralism” (Dahl 1971, p. 108). Similarly, others argue that democracy requires the congruence of nation and state. Those states that contain groups of people who do not feel to be a part of the nation will have more trouble consolidating a democracy within the state unit (Linz and Stepan 1996). Countries with homogenous
populations (e.g. Poland) are more likely to already possess a notion of “nationhood” than a country like Georgia, which contains significant ethnic and religious minorities.

Religious tradition is another cultural condition believed to have an effect upon successful democratization. Lipset, hearkening back to Weber, points to the features of Protestantism that accord with the ideals of democracy, including the focus on individual responsibility, and the support of capitalist institutions (Lipset 1963; see also Weber 1992). Huntington adds Catholicism as another religion that supports democracy, pointing to the changes in the Catholic Church after 1970 that made it a force opposing authoritarianism (Huntington 1991, p. 77). He concludes that Western Christian religious traditions are more likely to democratize, while countries with Islamic traditions are unlikely to, mainly due to the lack of separation of religion and the state in Islam. Bollen and Jackman (1985) find Protestantism to positively affect the level of democracy. The countries in this study contain Protestant, Catholic, Orthodox Christian, and Muslim populations. According to these theories, we would expect the Islamic countries to be authoritarian, or possess low levels of democracy, while the Protestant and Catholic countries should have higher levels of democracy.6

*International*

International factors can also affect the democratization process. A country located among democratic neighbors will be exposed to democratic procedures in trade relations and international treaties, and thus subject to pressures to comply with those norms. Countries experiencing democratization at the same time as others in their region may also be more likely to succeed, due to the surrounding atmosphere. Linz and Stepan refer to this phenomenon as *zeitgeist*:

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6 It can be argued, however, that due to the concerted effort under communist rule to delegitimize religion, the culture of the post-communist countries is not largely influenced by religious tradition (see also Jowitt 1992).
When a country is part of an international ideological community where democracy is only one of many strongly contested ideologies, the chances of transiting to and consolidating democracy are substantially less than if the spirit of the times is one where democratic ideologies have no powerful contenders (Linz and Stepan 1996, p. 74).

The prospect of forming pacts with neighboring states can provide an impetus for accelerated reform, as is the case for those countries that are candidates for accession into the European Union. We would thus expect countries located closer to the highly democratized and economically allied states of Western Europe to have higher levels of democracy than those located further east and in Asia.

**Political Explanations**

The type of constitutional system is hypothesized to affect democracy. According to Linz (1978), presidential systems are less stable than parliamentary ones, because they concentrate power in the executive and allow for the possibility of politics to turn into a zero-sum game. Parliamentary systems present more options for the sharing of power, and thus compensate the losers, or keep open options for their future victory (Linz 1978, p. 72). While Linz is concerned with the breakdown of democracy and the instability caused by presidential systems, we can also apply this hypothesis to the building of democratic systems. If presidential systems are more likely than parliamentary ones to break down, then we would expect newly democratic presidential systems to experience greater difficulty consolidating. For the countries that were never democratic during the time period covered in this sample, we would expect the presence of a presidential system to be a further strike against their

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7 Filippov, Ordeshook and Shvetsova (1997) argue that direct presidential elections in transitional democracies lead to increased multipartyism, which itself leads to greater chance of disruption during the early stages of transition. Przeworski et al. (1996) found parliamentarism to lead to democratic endurance. However, there is a debate over the validity of Linz’s claim. Horowitz argues that plurality elections and adversary democracy are the real foes of democratic endurance, rather than presidentialism, especially with regard to plural societies (Horowitz 1990). There is a large literature on the effect of electoral formulas on the outcome of elections. While such rules may affect the level of democracy by affecting the number of parties represented in the government, testing such factors is outside of the scope of this study and will left for future exploration.
chances of becoming democratic in the future. The argument against presidentialism is important in the post-Soviet context, especially considering the prevalence of autocratic leaders in the Central Asian republics. Presidentialism appears to have allowed these leaders to consolidate their hold on power.

Leadership can also determine the direction of reform. One argument is that democratic development requires leaders who are “loyal” to the democratic system (Diamond, Linz and Lipset 1995). Such loyalty can be represented not just by the type of political policies the leaders present in their campaigns, but also by how they obtained office. In the post-communist cases, leaders who are holdovers from the previous communist era, even if they were elected to office, might be less dedicated to the establishment of a new democratic order, in to maintain the status quo and their own political power. Voters may not have chosen leaders representing such policies deliberately, however. In some cases, former communists posed as nationalists in order to topple the old regime, but ended up using their hold on power to suppress democratic development (Suny 1993).  

According to Linz and Stepan, however, some of the victories by reformed communists (for example in Lithuania in 1992, Poland in 1993 and Hungary in 1994), rather than inducing a regime change away from democracy, might actually have served to strengthen it. This is because these electoral victories signaled that democracy was becoming “the only game in town,” and that it was possible for opposition parties to gain power without overthrowing the democratic system (Linz and Stepan 1996, p. 454). Thus, while a communist victory in the first free elections might have set a bad example for future democracy, such a victory in later elections after a period of reformist control can

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8 The presence of former communist elites in the non-political sector can also hinder democracy, as these people often become the economic elites, in charge of state enterprises or newly privatized industry. As such, they hold a powerful tool to stop reform by pressuring political leaders.
actually be a signal of the success of democracy.\textsuperscript{9} We would thus expect those countries that had
former communist elites elected to the post of president or prime minister in the first free elections to
have a lower level of democracy than those which elected reformers (Bunce 1998).\textsuperscript{10} In addition, we
would expect countries with high retention of former communist elites to have lower levels of democracy
than those with elite replacement by reformers.

Lastly, war can hinder democratic development. Civil war, regional uprisings, and interstate
military disputes create a state of emergency that disrupts the normal functioning of the political and
economic system. This can allow for governments to justify actions contrary to normal democratic
process in the name of wartime necessity. This analysis will control for the presence of war.

While previous studies have considered many of the above variables in a multiple regression
context, most do not include the entire set of post-communist countries, especially those in the Caucasus
and Central Asia that have had difficulty with democratization. One exception is M. Steven Fish (1998),
who conducts a study similar to the one in this paper. Fish considers all of the postcommunist countries
and tests the effect of several variables on level of democracy. The variables Fish uses are level of
development (HDI score), economic reform (his own index), religion, and ethnic homogeneity. The
present study differs from Fish’s in several respects. Fish conducts only cross-sectional analysis on level
of democracy in 1997, while this study utilizes both cross-sectional and panel analysis. In addition, this
study adds important political/institutional variables to his model. Lastly, this study creates a new

\textsuperscript{9} Higley, Kullberg and Pakulski (1996) argue that moderate degrees of elite continuity are conducive to democracy,
while high degrees lead to authoritarianism.

\textsuperscript{10} In an article about post-communist economic reform, Fish (1998) provides evidence for the claim that the outcome
of the initial elections held at the beginning of transition serves as the most important variable for explaining
differences in \textit{economic} reform.
variable—retention of former communist elites—and tests it empirically. While elites are the subject of many works on democratization (see above), empirical tests of the theories are rare. As such, I have created my own measures of elite replacement. Coding of these variables is discussed in detail below.

**Data Analysis**

*Operationalization of variables*\(^{11}\)

The Freedom House index of political rights is used to measure level of democracy in each of the post-communist states. Freedom House provides annual values for each country in this study, thus allowing for the tracking of changes over the period of reform. The political rights index measures the extent to which voters can make a choice among competing candidates in free and fair elections and to what extent the candidates are chosen independently of the state.\(^{12}\) Countries are ranked on a scale of 1 to 7, with 1 being the lowest score, and 7 the highest.\(^{13}\) Countries scoring 1-3.5 can be considered autocracies, 3.5 to 5.5 transitioning states, and 5.5 to 7 consolidated democracies. Averaging the political rights scores since independence, the Czech Republic, Hungary, Slovenia and Lithuania score highest, with an average score of 6.78, while Turkmenistan scores lowest, at 1.11.\(^{14}\) Of the countries in

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\(^{11}\) See Appendix 1, Table A1 for sources and specific coding of variables.

\(^{12}\) Freedom House considers whether the head of state and legislators are elected through free and fair elections, whether there are fair electoral laws and balloting practices, if the voters are able to endow their elected leaders with real power, if people have the right to organize into political parties, if there is a significant opposition, if the people are free from domination by the military or other powerful group, and if minority groups are not oppressed (Freedom House 2000).

\(^{13}\) The actual Freedom House scores assign a value of 1 to the highest level of democracy. For ease of interpretation, however, I have reversed the scoring of this variable.

\(^{14}\) Alternative measures of democracy exist. Some count the number of years a country has been democratic, but fail to capture the changes in quality of democracy over time (Alvarez et al. 1996). Bollen (1979) constructs an index of political democracy similar to Freedom House, based upon three indicators of popular sovereignty (fairness of elections, effective executive selection, and legislative selection) and three indicators of political liberties (freedom of
this study, all of the Central and East European states (with the exception of Albania) and the Baltics had steady or increasing levels of democracy, while the remaining former Soviet republics had erratic, or declining levels of democracy.

To measure level of development, I use level of wealth, or log GDP per capita, adjusted for purchasing power parity. The United Nations Human Development Index (HDI) has been used in some studies as an indicator of development, and I use it as an alternate to check for robustness. The HDI provides a composite measure of various factors included in development, including level of wealth (GDP per capita), life expectancy at birth, and education (measured by the adult literacy rate and school enrollment). Because it can be argued that the direction of causation between development and democracy is unclear, I perform two checks. First, I lag level of development. Second, I use an exogenous variable, distance from the equator, to check the results. A country’s latitudinal position cannot be affected by the level of democracy, and studies have shown that closeness to the equator is correlated with lower levels of development.

To measure economic reform, I use indices reported by the IMF and the European Bank for Reconstruction and Development (EBRD). The Liberalization Index is a weighted average of three

\[ \text{Liberalization Index} = \sum \text{indices} \times \text{weights} \]

the press, freedom of group opposition, and government sanctions). The Bollen measure does not provide data for the countries and periods in question in this study. One criticism of democracy measures is that many use subjective indicators that are then coded into an index that is difficult to unpack and replicate. Vanhanen (1997) constructs another measure of democracy that uses two easily obtained measures, the portion of votes cast for the smallest party, and voter turnout. These measures can be argued to be inappropriate to use for the post-communist cases, however. Party fragmentation is high: many countries have over twenty “parties” competing in each election, each of which caters to a very small group of people and is likely to disappear before the next election. Furthermore, due to the mandatory nature of elections under communist rule, rates of turnout for post-communist countries were high during the first elections, declining in later ones (White, Rose, McAllister 1997).

15 Many previous studies use GNP per capita as their measure of wealth. I was unable to obtain annual measures of GNP per capita (PPP) from a single data source. Therefore, I substitute data for GDP per capita (PPP). The measures are highly correlated. Data have been logged to produce linearity.

16 The IMF reports updated data from de Melo, Denizer, and Gelb (1996).
indices measuring domestic market liberalization, foreign trade liberalization, and enterprise privatization and banking reform. Values range from 0 to 1 and are available up to 1997. The EBRD transition indicator is an average of measures of progress in large- and small-scale privatization, governance and enterprise restructuring, price liberalization, trade and foreign exchange systems, competition policy, banking reform and interest rate liberalization, and securities market and non-bank financial institutions. The variable is measured on a scale of 1 (least progress in reform) to 4+ (most reformed).

Ethnic homogeneity is measured as the percent of the largest ethnic group in the population of each country.17 Religion is measured as the percent of the population that is Muslim, to test the theory that Islam and democracy are incompatible. Dummy variables for each of the three groups, Western Christian (Catholic and Protestant), Eastern Christian (Orthodox), and Muslim, are used as an alternate indicator of religion. Of the countries in this study, Croatia, Czech Republic, Estonia, Hungary, Lithuania, Poland, Slovakia and Slovenia have Western Christian religious traditions, Armenia, Belarus, Bulgaria, Georgia, Macedonia, Moldova, Romania, Russia and Ukraine have Eastern Christian traditions, and Albania, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan have Islamic religious traditions.

To measure international affects, I use the log value of the distance of the country’s capital from Duesseldorf, Germany (Fischer and Sahay 2000). Distances range from 559 km (Czech Republic) to 5180 km (Kazakhstan). War is measured with a dummy variable, indicating its presence or absence for

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17 Previous studies have also utilized the “ethnolinguistic fractionalization” index (ELF) reported in Taylor and Hudson (1979). This index measures the probability that two randomly selected persons from one country will not speak the same language. I was not able to find current values of ELF for the countries in this study, and therefore calculated an index based upon ethnicity data from the CIA. This data does not differentiate between ethnic and linguistic groups, however, calling into question the validity of my measure. For this reason, I have used the percent of largest ethnic group as the main indicator of ethnic homogeneity. The correlation between this percentage and my calculation of ELF is 0.974.
the year in question. The countries in this study involved in wars were Armenia and Azerbaijan (1992-95), Bosnia (1993-96), Croatia (1992-96), Georgia (1992-94), Moldova (1992-93), Tajikistan (1993-98), and Yugoslavia (1992-96). Dummy variables also measure whether a country has a presidential, parliamentary, or hybrid system, according to its post-communist constitution. (See Appendix, Table A2 for selected country indicators.)

The presence of former communist elites in government is measured with regard to leaders and varies for the panel and cross-sectional analyses. Coding of the ex-communist leaders variables required gathering information from many different sources and, in some cases, making informed judgment calls. I surveyed reports from Electoral Studies, the Europa World Year Book, newspaper articles, RFE/RL Research Reports, and internet sources to find information on elections since the beginning of transition for all 27 countries in this analysis. After identifying the executive and head of government for each country, I coded as ex-communist those individuals that were former Politburo members, SSR presidents, Communist Party officials in the USSR, or who represented the main communist successor party after independence. I use dummy variables to measure each of these factors in the panel analysis. Communist successor parties are defined as those that are composed mostly of people who were active in the communist party before transition (Ishiyama 1997). Once these parties were identified, I used results from legislative elections to calculate the proportion of seats they held in the lower house of parliament and included this variable in the panel analysis. For the cross-sectional analysis, I created a dummy variable that assigns a value of 1 to those countries for which the outcome of the initial election after transition was a victory for the ex-communists.

Panel Analysis
I begin analysis of the data using least squares estimation with panel-corrected standard errors (pcse) to correct for contemporaneous correlation and heteroscedasticity (Beck and Katz 1995). I correct for serial correlation by including a one-year lag of the dependent variable (level of democracy) as an independent variable. Because some of my independent variables may be endogenous (wealth may cause democracy, but democracy can also cause higher wealth), I include lags of my economic and political variables. In order to control for any remaining country-specific effects that are not captured by the cultural variables included in the model, I also include a dummy variable controlling for whether the country was a former Soviet republic.

I proceed in my analysis by constructing four models. The first includes only the most exogenous variables—those that are not likely to be affected by level of democracy. These include religion, ethnic composition, and geographical location. The second model adds level of development, lagged to correct for possible endogeneity. I test this model with alternate measures of development for robustness, as is discussed below. At this point, I also control for being a former Soviet republic. The third model adds the second economic variable, level of economic reform, again lagged to correct for endogeneity. The final model includes all of the variables from the previous regressions, and adds the remaining political variables.

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18 I perform the analysis in Stata 6.0, using the xtpcse option. Beck and Katz (1995) show that the Parks method of generalized least squares produces downward biased standard errors in data sets in which there are more cross-sectional units than time points, as is typically the case for political scientists. Least squares estimation with panel-corrected standard errors produces more accurate results. This method is also superior to the fixed effects model discussed in Hsiao (1986), as it allows for the inclusion of time-invariant variables such as ethnicity, religious tradition, geographical location, and constitutional type. Stimson (1985) also provides a good discussion of techniques applicable to the analysis of panel data.

19 As suggested in Beck (2000), I performed a Lagrange multiplier test by regressing the residuals from the fully specified model on the remaining independent variables and the lagged residual to determine that the model that includes a lagged dependent variable does not have serially correlated errors.

20 Since lagged level of democracy is included as an independent variable, I lag level of development, economic reform, leadership and war two periods to control for endogeneity. The problem with this approach, however, is that the number of cases is reduced.
variables: constitutional type, leadership, and war. In the fully specified model, I can thus measure the
effect of political and economic variables while controlling for exogenous variables that might have in
turn affected any or all of these variables.

Table A3 contains the results of the panel regressions. In all four models, the level of democracy
from the previous year is both statistically and substantively significant. The additional coefficients thus
capture any remaining variation in democracy. In model 1, a one-point increase in level of democracy
the previous year predicts a 0.8 increase for the current year, all else constant. Increasing the population
of Muslims by 90% (moving from Armenia to Azerbaijan) predicts a half point decrease on the
democracy scale. The remaining two variables, ethnic homogeneity and distance from Europe, have
coefficients with signs that are opposite of what was expected. Surprisingly, greater ethnic homogeneity
leads to a slight decrease in level of democracy, while being located farther away from Europe leads to
a small increase in level of democracy (although this is not statistically significant). The signs on these
variables change after controlling for other factors.

In model 2, I regress democracy on the variables in model 1, adding economic development
and a dummy variable for former Soviet republics. The effect of the lagged democracy score remains
strong and significant (0.824), and the effect of Islam increases (from -0.587 to -0.739). In addition, the
signs of the ethnicity and geography variables are as expected. Ethnicity is no longer significant,

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I also estimated the effect of Islam using dummy variables. I first tested the model with both a dummy variable for
predominantly Muslim countries and one for predominantly Western Christian countries (Eastern Christian is the
excluded category). While the coefficient for the Muslim dummy was negative and both substantively and
statistically significant, the coefficient for the Western Christian dummy was very small and not significant. I also
tried only including the Muslim dummy, which changed the coefficient only slightly. Thus, I concluded that the
difference between Western and Eastern Christian countries with regard to level of democracy was not discernible,
and decided to use instead a measure of percent Islamic. The Muslim dummy and percent Islamic variables have a
0.938 correlation.
however. An approximately three-fold increase in distance from Duesseldorf (going from the Czech Republic to Bulgaria), predicts a decrease in level of democracy by 0.325 points. The value for the former Soviet republic variable is small and statistically insignificant.

Interestingly, the coefficient for level of development is both very small and negative for every model in which is it included. In model 2, for example, a three-fold increase in per capita GDP (Albania to Poland) predicts a 0.224 decrease in level of democracy. This is unexpected, as development is hypothesized to lead to higher levels of democracy. Adding economic liberalization (model 3) produces a statistically significant coefficient with the expected sign. However, the change resulting from increasing level of liberalization is very small, and thus substantively insignificant. A ten percent increase on the economic liberalization scale will increase democracy only by 0.03 points, all else constant.

The final model (4) is fully specified with social, international, economic and political variables. Prior level of democracy and Islam remain significant. Geographic location and economic reform are no longer significant, perhaps indicating that their effects are captured by the newly added variables. The existence of a presidential system predicts a 0.463 decrease in level of democracy, all else constant.

Neither war nor governance by an ex-communist leader are found to be significant, providing no support for the theory that elite retention leads to lower levels of democratic reform. Examination of

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22 Because GDP per capita is measured in natural log units (base e), the regression indicates that an “e-fold” (e=2.71828≈3) increase in GDP is associated with a 0.224 decrease in level of democracy (Tufte 1974).

23 I also substituted percent of GDP in agriculture and distance from the equator as alternate measures of economic development into the regressions. Neither variable produced substantively or statistically significant coefficients.

24 Unexpectedly, the coefficient for ex-communist leader was positive, indicating that countries with such leaders score higher on the democracy scale than those without. I also tested the model with alternate indicators of ex-communist presence in government: whether the president was an ex-communist, whether the prime minister was an
added variable plots shows the following cases to be large outliers: Albania 1993, Romania 1996, and Belarus 1996. These will be discussed below.

**Cross-sectional Results**

Because of the large and significant coefficient for the lagged dependent variable in every panel model, it is possible that the effects of some of the variables, particularly those that do not vary over time, are being underestimated in the panel regressions. Therefore, I reestimated the four panel models using cross-sectional OLS multiple regression analysis (with White heteroscedasticity-corrected standard errors) using the 1999 level of democracy as the dependent variable and one-period lags to control for endogeneity problems. The results of the cross-sectional regressions are reported in Table A4.

Model 1 includes only those variables exogenous to democracy. A country containing an entirely Muslim population is predicted to score over 2 points lower on the democracy scale than a country with no Muslim population.²⁵ As in the panel analysis, ethnic homogeneity does not have a significant effect on level of democracy in any of the models. The effect of geography is larger in the cross-sectional version of model 1 than in the panel version. A three-fold increase in distance from ex-communist, and the percent of seats held in parliament by ex-communist parties. None of these variables was found to be significant.

²⁵ I also reestimated this model using dummy variables for Muslim and Western Christian (Eastern Christian omitted). The coefficients were –2.17 and 1.29, respectively, while only the Muslim dummy variable was significant (at the 0.000 level). I interpret these results to mean that, all else equal, Muslim countries will be 2.17 points lower on the democracy scale than Eastern Christian countries, while Western Christian countries will be 1.29 points higher on the scale than Eastern Christian countries. This indicates that there is a hierarchy, with Western Christian countries being the most democratic, Eastern Christian in the middle, and Islamic countries the least. Repeating the model with just a dummy for Muslim countries yields a coefficient of –2.22 (0.000 significance level). Reestimating models 2-4 using the two dummies instead of percent Islamic produces similar results, but the coefficient for the Western Christian dummy is never statistically significant. As such, I have chosen to retain the percent Islamic measure in the remaining regression models.
Duesseldorf predicts a 1.806 decrease on the democracy scale (significant at the 0.000 level). This model predicts 72% percent of the variation in level of democracy.

Model 2 adds economic development to the equation, and controls for being a former Soviet republic. The coefficient for percent Islamic increases slightly (to –2.693). Geography is also significant, with a slightly smaller effect than in the previous model. Being a former Soviet republic is likely to decrease level of democracy, although the coefficient is not significant. Finally, similar to what was found in the panel regressions, the cross-sectional estimation indicates that level of development is neither a statistically nor substantively significant predictor of level of democracy. As an added check, I tested alternate measures of level of development. Using the HDI value for 1998 yielded results with the correct sign, but the coefficient was not significant (b=1.491, p>0.806). Using distance from the equator and percent of GDP in agriculture produced similarly insignificant results.

Model 3 factors in the effect of economic reform on level of democracy. Contrary to what was found in the panel model, a one unit increase in the 1998 EBRD Economic Reform index (equivalent in substantive terms to Uzbekistan increasing its level of economic reform to that of Lithuania) predicts an increase in level of democracy of 2 points. Of the remaining variables in this model, only percent Islamic is statistically significant (-1.807).

Finally, model 4 adds the remaining political variables that were considered in the panel regressions. The war and ex-communist victory variables are both as expected in sign (negative), but neither is significant. Once again, Islam and level of economic reform are significant predictors of level of democracy. As in the panel model, we find that presidential systems are likely to score lower on the

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26 Similar results were obtained when the deMelo, Denizer and Gelb liberalization index values for 1998 were used to estimate level of economic reform.
democracy scale than parliamentary and hybrid systems (by 0.928 points), holding all else constant, although this result is not statistically significant.\textsuperscript{27}

The obvious shortcoming of the cross-sectional analysis is that it relies on a small number of cases (25) and a large number of independent variables (9 in the fully specified model). The results are intended to supplement the panel analysis. Examination of added variable plots for the fully specified regression model indicated that Croatia and Armenia were outliers. They will be discussed below.

\textbf{Discussion}

From the panel and cross-sectional analyses, I identified five variables that affect level of democracy in the post-communist countries: Islamic culture, distance from Western Europe, level of economic reform, presidentialism, and a country’s previous level of democracy. Some of the relationships are more strongly supported than others by the data, and further analysis will be required to confirm the generalizability and applicability of these results to other areas undergoing democratization.

\textit{Economic Explanations}

Level of economic development was not found to significantly predict the level of democracy in the post-communist countries, calling into question the conclusions of modernization theory. The correlation between level of democracy and GDP per capita is 0.66, indicating a somewhat weak relationship, one that diminishes as cultural and political variables are controlled for. Looking at countries individually and considering the results of Przeworski and Limongi (1997), I do find support

\textsuperscript{27} I also estimated the final model using different combinations of the variables. Using two dummy variables to measure the existence of both presidential and parliamentary systems (thus excluding hybrid systems) resulted in coefficients of \(-0.664\) and \(0.783\), respectively. Neither coefficient was statistically significant, however. Including only a dummy measuring the existence of a parliamentary system yielded a coefficient of 1.034 for the variable, although it was only significant at \(p>0.059\).
for the finding that democratic regimes with incomes over $4000 are unlikely to collapse. Of the
democratic regimes with per capita income over $4000 at any given time, none moved from democracy
to authoritarianism in the period studied.

The cross-sectional analysis shows that economic reform is an important predictor of
democracy, with increased levels of reform often accompanying increased levels of democracy. This
relationship is much weaker in the panel analysis, although it is possible that the effects of reform are
being captured in the lagged dependent variable that is included in those models. There also exist a few
countries that are exceptions to the positive effect of economic reform. According to the Liberalization
index, Armenia in 1996 and 1997 scored 0.72, rather high in terms of reform. However, in these years,
Armenia was considered an autocracy, scoring 3 on the democracy scale. Kazakhstan is another
exception. From 1994 to 1997, Kazakhstan was considered an autocracy, scoring 2 on the democracy
scale. Its levels of reform these years were high—0.76, 0.82, 0.86, and 0.86, respectively. For the
remainder of the post-communist countries, however, high levels of economic reform do tend to
correlate with higher levels of democracy.

Considering that all of the post-communist countries embarked upon both political and
economic reform at the onset of transition, it is not surprising to find that those countries with higher
levels of economic reform also score higher on level of democracy. Theoretically, democracy and
market liberalism go hand in hand, and it is difficult to imagine that a country with little progress in
privatization and liberalization could have achieved high levels of political competition. Thus, in terms of
policy, post-communist countries can only benefit from initiating comprehensive and speedy economic
reforms.

*Cultural and International Explanations*
Contrary to theory, ethnic homogeneity was not found to significantly affect the level of democracy in the post-communist states. Countries with varying proportions of their largest ethnic group filled the range of the political rights index. These findings call into question the applicability of theories about cultural pluralism to the post-communist cases. Nevertheless, all of the instances of war in the period since 1990 in these countries have been cases of ethnic conflict. This fact, coupled with the negative findings in the empirical analysis, may suggest that either the variable for ethnic pluralism I have used in my analysis is not a suitable measure, or that the ethnic composition of the post-communist states does not have a direct effect on prospects for democracy. To solve this puzzle requires further research into the causes and effects of ethnic conflict and the role of ethnic pluralism in state building.

In all of the regressions, a large Muslim population was found to negatively affect level of democracy. Of the seven predominantly Islamic countries in the sample, all but Albania remain authoritarian. Distance from Duesseldorf also served as a good predictor of level of democracy, as moving further away from Western Europe is correlated with lower democracy scores. The question also arises of correlation between the religion and geography variables. All of the predominantly Islamic countries in the sample (with the exception of Albania) are located far from Europe. Figure A1 illustrates the relationship between level of democracy, geography and religion across the set of countries. Looking at average democracy scores since transition, most of the countries located close to Western Europe had high levels of democracy, with average scores decreasing for countries located farther east. The Islamic countries located farthest from Europe (Azerbaijan, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan and Kazakhstan) all score low on the democracy scale.

Political Explanations
The impact of presidentialism is a controversial subject in the literature. This paper finds some support for the extension of the Linz hypothesis that presidential systems are likely to be less democratic than parliamentary systems. Of the purely presidential systems in our sample, only Lithuania and Moldova were democratic in 1999. Conversely, all of the autocracies and most of the transitioning states had presidential systems. Only Macedonia and Albania were considered transitioning states in 1999, both countries with parliamentary systems. War does not appear to be a significant determinant of democracy in these countries, although some of the effects of war may be mediated and captured by the other independent variables included in the analysis.

The new variable introduced in this study, retention of ex-communist elites, did not prove to be significant in any of the tests. Various ways of measuring elite continuity were added to the regressions, including past and current affiliations of leaders, the outcome of initial, “founding” elections thought to set the tone of future developments, and the strength of parties endorsing the return to pre-transition policies. None of the measures were found to be significant when controlling for other determinants of democracy.

While the results provide little support for theories advocating the need for elite replacement to achieve successful democratization, they do not support abandonment of such ideas. First, the measures I have used may not be capturing the full effect of elite retention. While the mere fact of being a former communist may not directly affect democracy, the types of policies pursued by such leaders will. Ex-communists may choose to play by the rules of democracy in their role as leaders, or may decide to consolidate power and govern with varying degrees of authoritarianism. After an initial period of reformist control, the ex-communist Democratic Left Alliance in Poland was successful in gaining 37% of the seats in parliament in 1993, with little effect on the quality of democracy in the country. In the
meantime, in Turkmenistan, the consolidation of power in the office of the president by ex-communist leader Saparmurad Niyazov “Türkmenbashy,” meant that democracy never had a chance to be born.

The effect of elites might be better studied through closer analysis of individual countries to identify patterns or conditions that coincide with retention of ex-communists to affect the trajectory of reform. I discuss a few, preliminary examples below. Furthermore, the results of this paper may point to some features of post-communist transitions that are unique when compared to those in other areas of the world and at different time periods. The nature of the overthrow of authoritarian regimes may provide the basis for understanding the role of elites and party formation in the new states (Geddes 1995). Because for the most part the elites in the post-communist transitions were not expelled or imprisoned, many retained power under the guise of renamed parties or shifted to leadership roles in the economic sector, from which they could exert anti-reform pressure. The passing of time and the entrance of new generations into the political arena may be required before reform takes hold in some of the post-communist countries. Such analysis requires further research, and must be reserved for separate study at a future time.

Outliers

Examination of added variable plots in the panel and cross-sectional regressions uncovered a number of outlying cases. In the fully specified panel model 4, Albania (1993), Belarus (1996) and Romania (1996) deviate from the observed trends. In Albania, the level of democracy increased two points, from 4 in 1992 to 6 in 1993, while its economic liberalization score increased from 0.24 to 0.66 between 1991 and 1992, a change most likely felt by 1993. In 1992, the anti-communist Salih Berisha was elected to the presidency, replacing Ramiz Alia, who had been Chairman of the country’s Presidium of the People’s Assembly from 1982 to 1991 and First Secretary of the Albanian Worker’s
(communist) Party from 1985 to 1991. Berisha’s election signaled a move toward reform; however, it was soon thereafter found that Berisha would govern as an authoritarian leader, and Albania’s level of democracy dropped back to its previous level (4) by the end of Berisha’s tenure in 1997 (Rama 1997). Belarus scored 2 on the democracy index in 1996, dropping from 4 in 1994 and 3 in 1995. In July 1994, Alexander Lukashenko won the presidency, initiating a period of autocratic control remaining to this day. Economic reform has been slow and even reversed, and press freedom is severely restricted (Fontaine 1996). Romania is unique in that it experienced a leap in level of democracy, moving from 4 in 1995 to 6 in 1996, entering the ranks of the consolidated democracies. Economic liberalization in the country had been steadily increasing since 1990, reaching a level of 0.76 in 1996. Politically, the former communists were voted out of office in the 1996 elections, with president Emil Constantinescu replacing Communist Party leader Ion Iliescu.

I found Armenia and Croatia to be outliers in the cross-sectional regressions. Both countries were considered transitional democracies in 1999, scoring 4 on the democracy index. Per capita GDP in Armenia is comparable to that of neighboring countries, as is level of economic reform. Its presence as an outlier may be explained by the fact that it has a low level of democracy despite being non-Islamic, as well as by its experience with war against Azerbaijan between 1992 and 1995.

Croatia has levels of economic reform close to its neighboring countries, with only a slightly lower GDP per capita. However, taking into consideration Croatia’s proximity to Western Europe, the fully specified model (4) predicts that Croatia should score 5.54 on the political rights index, thus including it in the ranks of other Central and Eastern European consolidated democracies. Since Croatia is not populated by a large proportion of Muslims, Croatia’s divergence from the trend followed by other, more successful countries in the region is difficult to explain. The effect of war between 1992 and
1995 may provide some explanation of the unfinished transition in the country. Further analysis into the history of the transition process in both of these countries is required in order to better understand why neither has yet to achieve consolidation.

Conclusion

This study explored the variation in levels of democracy in the post-communist states since the beginning of transition and found that a country’s previous level of democracy, religious tradition, distance from Western Europe, level of economic reform, and government type can be used to predict its present level of democracy. Other factors previously theorized to help democracy—high levels of economic development, ethnic homogeneity, and elite replacement, were found to have little effect on level of democracy in the post-communist countries.

Rather than providing an authoritative answer to what is required for successful democratic transition, however, these results point to the need for further research into the process of democratization, especially on the topic of political leadership, in order to outline the specific mechanisms that work to determine the success or failure of democracy. Moreover, this study did not consider a number of other factors that have been theorized to affect democracy, including corruption, political institutions such as party and electoral systems, the role of civic organizations and the press, among others. Future analysis should expand the data set to include a wider set of countries, in order to ascertain whether the experience of the post-communist transitions is unique. In the final analysis, whether or not democracy becomes the “only game in town” in the post-communist countries depends on a mixture of initial conditions and policy choices that work to form a system that is accepted by people as representative of their interests and able to carry on the duties of stable governance.
References


Main Internet Sources:
RFE/RL Research Reports: http://www.rferl.com/
Agora Elections Archive: http://www.agora.stm.it/elections/
Zárate’s Political Collections, World Political Leaders, 1945-2001:
http://www.terra.es/personal2/monolith/00index.htm
### APPENDIX

#### Table A1: Variable definitions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measure</th>
<th>Coding</th>
<th>Source</th>
<th>Data Set</th>
<th>Summary statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economic variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reform</strong></td>
<td>Liberalization Index, weighted average of domestic market liberalization (w=0.3), foreign trade liberalization (w=0.3), enterprise privatization and banking reform (w=0.4)</td>
<td>IMF, World Economic Outlook, October 2000, Table 3.10, p. 135; Taken from Martha de Melo, Cevdet Denizer, and Alan Gelb, &quot;Patterns of Transition from Plan to Market,&quot; The World Bank Economic Review, Vol. 10, No. 3, pp. 397-424 (Washington: World Bank, September 1996) and update to 1997 by the IMF.</td>
<td>Panel: 1990-97 values, all countries except Bosnia and Yugoslavia</td>
<td>N=200, mean=0.551, s.d.=0.286</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cumulative Liberalization Index, see above.</td>
<td>see above</td>
<td>Cross-section: 1998 values for all countries except Bosnia and Yugoslavia</td>
<td>N=25, mean=4.5, s.d.=1.64</td>
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<td>-------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Human Development Index (HDI), includes life expectancy at birth, adult literacy rate, school enrollment, and GDP per capita (PPP, US$).</td>
<td>0-1</td>
<td>From UN Human Development Report 1999, Table 1</td>
<td>Cross-section: 1998 values for all countries except Bosnia and Yugoslavia N=25, mean=0.76, s.d.=0.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Political Variables**

<table>
<thead>
<tr>
<th>Presidential system</th>
<th>Dummy variable indicating country has presidential system</th>
<th>0, 1</th>
<th>Europa World Book, 1997</th>
<th>Panel and Cross-section</th>
<th>Panel: N=268, mean=0.519, s.d.=0.5. Cross-section: N=26, mean=0.54, s.d.=0.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parliamentary system</td>
<td>Dummy variable indicating country has parliamentary system</td>
<td>0, 1</td>
<td>Europa World Book, 1997</td>
<td>Panel and Cross-section</td>
<td>Panel: N=268, mean=0.336, s.d.=0.47. Cross-section: N=26, mean=0.34, s.d.=0.49</td>
</tr>
<tr>
<td>Ex-communist president</td>
<td>Dummy variable indicating that the president of the country is a former communist leader or represents main communist successor party</td>
<td>0, 1</td>
<td>Various sources, including Europa World Book, Electoral Studies, and internet resources</td>
<td>Panel</td>
<td>N=241, mean=0.527, s.d.=0.5</td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
<td>Sources</td>
<td>Panel Sample</td>
<td>Cross-section Sample</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>--------------</td>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td>Ex-communist prime minister</td>
<td>Dummy variable indicating that the prime minister of the country is a former communist leader or represents main communist successor party</td>
<td>Various sources, including <em>Europa World Book</em>, <em>Electoral Studies</em>, and internet resources</td>
<td>N=238, mean=0.479, s.d.=0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ex-Communist leadership</td>
<td>Dummy variable indicating that the leader of the country (depending on type of system) is a former communist leader or represents main communist successor party</td>
<td>Various sources, including <em>Europa World Book</em>, <em>Electoral Studies</em>, and internet resources</td>
<td>N=237, mean=0.418, s.d.=0.494</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communist successor party strength</td>
<td>Percent of seats in parliament held by main communist successor party</td>
<td>Various sources, including <em>Europa World Book</em>, <em>Electoral Studies</em>, and internet resources</td>
<td>N=200, mean=0.301, s.d.=0.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ex-Communist Victory in Initial Election</td>
<td>Dummy variable indicating that the outcome of the initial post-communist election was victory for the ex-communists</td>
<td>M. Steven Fish, &quot;The Determinants of Economic Reform in the Post-Communist World,&quot; <em>East European Politics and Societies</em>, Vol. 12, No. 1, Winter 1998, pp.50-52</td>
<td>N=26, mean=0.423, s.d.=0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>War</td>
<td>Dummy variable, indicating country was engaged in war</td>
<td>various news sources</td>
<td>Panel: N=268, mean=0.123, s.d.=0.33. Cross-section: N=26, mean=0.269, s.d.=0.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic homogeneity</td>
<td>Percentage of largest ethnic group</td>
<td>CIA country files</td>
<td>Panel: N=268, mean=0.76, s.d.=0.15. Cross-section: N=25, mean=0.76, s.d.=0.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Islamic (% of population)</td>
<td>Percentage of population that is Muslim</td>
<td>CIA country files</td>
<td>N=299 (panel), 26(cross-section), mean=0.25, s.d.=0.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Islamic tradition</td>
<td>Dummy variable, indicating country has Islamic religious tradition</td>
<td>CIA country files</td>
<td>Panel: N=268, mean=0.295, s.d.=0.46. Cross-section: N=26, mean=0.27, s.d.=0.45</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Western Christian tradition

Dummy variable, indicating country has Western Christian religious tradition

| Panel and Cross-section | Panel | N=268, mean=0.336, s.d.=0.47. Cross-section: N=26, mean=0.346, s.d.=0.49 |

### Eastern Christian tradition

Dummy variable, indicating country has Eastern Christian religious tradition

| Panel and Cross-section | Panel | N=268, mean=0.367, s.d.=0.48. Cross-section: N=26, mean=0.384, s.d.=0.5 |

### International Variables and Controls

#### Distance from Europe

Distance of the capital of the country from Duesseldorf, Germany in Kilometers, natural log (ln) used in regressions

| Panel and Cross-section | Panel | N=250 (panel), 25 (cross-section), mean=2237, s.d.=1503 |

#### Latitude

Distance of the country from the equator in Latitude, in hours and minutes

| CIA country files | Panel and Cross-section | N=259 (panel), 26 (cross-section), mean=0.468, s.d.=0.062 |

#### Former Soviet Union

Dummy variable, indicating country is a former Soviet republic

| Panel and cross-section | Panel | N=268, mean=0.556, s.d.=0.5. Cross-section: N=26, mean=0.577, s.d.=0.5 |
### TABLE A2: Selected Country Indicators

<table>
<thead>
<tr>
<th>Country</th>
<th>Democracy</th>
<th>Economic Liberalization</th>
<th>GDP/capita</th>
<th>Proportion of population Islamic</th>
<th>Distance from Europe (km)</th>
<th>Proportion of largest ethnic group</th>
<th>Government Type</th>
<th>Ex-Communist Victory in Initial Election</th>
<th>Main Communist Successor Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>4.10</td>
<td>0.57</td>
<td>1927</td>
<td>70%</td>
<td>1494</td>
<td>95%</td>
<td>Parliamentary</td>
<td>x</td>
<td>Socialist Party of Albania (PSSH)</td>
</tr>
<tr>
<td>Armenia</td>
<td>3.89</td>
<td>0.42</td>
<td>2838</td>
<td>0%</td>
<td>3143</td>
<td>93%</td>
<td>Presidential</td>
<td></td>
<td>Armenian Communist Party (HKK)</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>2.22</td>
<td>0.33</td>
<td>2279</td>
<td>93%</td>
<td>3270</td>
<td>90%</td>
<td>Presidential</td>
<td>x</td>
<td>Yeni Azerbaijan Party</td>
</tr>
<tr>
<td>Belarus</td>
<td>2.89</td>
<td>0.31</td>
<td>4928</td>
<td>0%</td>
<td>1435</td>
<td>78%</td>
<td>Presidential</td>
<td>x</td>
<td>Communist party of Belarus (KPB)</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>5.90</td>
<td>0.60</td>
<td>4334</td>
<td>13%</td>
<td>1574</td>
<td>85%</td>
<td>Parliamentary</td>
<td>x</td>
<td>Bulgarian Socialist Party (BSP)</td>
</tr>
<tr>
<td>Croatia</td>
<td>4.11</td>
<td>0.77</td>
<td>4231</td>
<td>1%</td>
<td>913</td>
<td>78%</td>
<td>Semi-presidential</td>
<td></td>
<td>Social Democratic Party of Croatia (SDP)</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>6.78</td>
<td>0.80</td>
<td>9493</td>
<td>0%</td>
<td>559</td>
<td>94%</td>
<td>Parliamentary</td>
<td></td>
<td>Communist Party of Bohemia and Moravia (KSCM)</td>
</tr>
<tr>
<td>Estonia</td>
<td>6.11</td>
<td>0.71</td>
<td>4639</td>
<td>0%</td>
<td>1449</td>
<td>65%</td>
<td>Parliamentary</td>
<td></td>
<td>Estonian Democratic Labor Party (EDT)</td>
</tr>
<tr>
<td>Georgia</td>
<td>3.89</td>
<td>0.40</td>
<td>2454</td>
<td>11%</td>
<td>3069</td>
<td>70%</td>
<td>Presidential</td>
<td></td>
<td>Citizens' Union of Georgia (SMK)</td>
</tr>
<tr>
<td>Hungary</td>
<td>6.70</td>
<td>0.81</td>
<td>6447</td>
<td>0%</td>
<td>1002</td>
<td>90%</td>
<td>Parliamentary</td>
<td></td>
<td>Hungarian Socialist Party (MSzP)</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>2.22</td>
<td>0.54</td>
<td>3916</td>
<td>47%</td>
<td>5180</td>
<td>46%</td>
<td>Presidential</td>
<td>x</td>
<td>Communist Party of Kazakhstan (CPK)</td>
</tr>
<tr>
<td>Kyrgyz Rep.</td>
<td>3.56</td>
<td>0.42</td>
<td>2493</td>
<td>75%</td>
<td>5047</td>
<td>52%</td>
<td>Presidential</td>
<td></td>
<td>Party of Communists of Kyrgyzstan (PKK)</td>
</tr>
<tr>
<td>Latvia</td>
<td>6.00</td>
<td>0.62</td>
<td>4048</td>
<td>0%</td>
<td>1293</td>
<td>57%</td>
<td>Parliamentary</td>
<td></td>
<td>Latvian Socialist Party (LSP)</td>
</tr>
<tr>
<td>Lithuania</td>
<td>6.78</td>
<td>0.67</td>
<td>4378</td>
<td>0%</td>
<td>1299</td>
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<td>80%</td>
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<td>x</td>
<td>People’s Democratic Party (PDP)</td>
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Democracy, Economic Liberalization, and GDP per capita figures are averages since the beginning of transition or independence. For details on measurement of variables and sources, see Table A1.
<table>
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<tr>
<th>Model</th>
<th>Level of Democracy</th>
<th>Islamic (% of population)</th>
<th>Ethnic Homogeneity (% of largest ethnic group)</th>
<th>Geography (ln distance from W. Europe, km)</th>
<th>Former Soviet Republic</th>
<th>Ln GDP per capita</th>
<th>Economic Liberalization</th>
<th>Presidential System</th>
<th>Ex-Communist Leader</th>
<th>War</th>
<th>Constant</th>
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**N**: 204, 188, 188, 174  
**R^2**: 0.910, 0.9198, 0.9211, 0.9395  
**Wald χ^2**: 5938.74, 14792.42, 17082.98, 61848.97  
**P >**: 0.000, 0.000, 0.000, 0.000
Dependent variable is level of democracy, measured by the Freedom House political rights index (1-7). Numbers in parentheses are panel-corrected standard errors. P-values are in italics under standard errors.

**TABLE A4: Cross-Sectional Regression Results**

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<th>Model 1</th>
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<th>Model 3</th>
<th>Model 4</th>
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<td>-1.807</td>
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<td>Geography (ln distance from W. Europe, km)</td>
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Dependent variable is level of democracy in 1999, measured by the Freedom House political rights index (1-7). Numbers in parentheses are White heteroscedasticity-corrected standard errors. P-values are in italics under standard errors.
Figure A1: Cross-Country Comparison

Vertical axis represents average Democracy score since transition. Countries are listed in order of distance from Duesseldorf, Germany. White bars are countries with predominantly Muslim populations.