# TURNOVER IN POWER AS A RESTRAINT ON INVESTING IN INFLUENCE: EVIDENCE FROM THE POSTCOMMUNIST TRANSITION

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We develop and implement a method for measuring the frequency of changes in power among distinct leaders and ideologically distinct parties that is comparable across political systems. We find that in the postcommunist countries, more frequent changes in power in the early years of transition are associated with better governance in the later years. The results are consistent with the hypothesis that more frequent turnover in power lowers the returns to firms seeking to buy political influence: i.e. that government turnover serves as a restraint on investing in influence regardless of the ideology of the government.

## 1. INTRODUCTION

IT IS often held in political science and democracy studies that two or more changes in power among genuinely different political leaders are needed before democracy is securely institutionalized (Huntington, 1991; Przeworski, 1988). In this paper, we examine whether government turnover also fosters the establishment of the rule of law. Much recent empirical work on the quality of governance emphasizes the effects of geography and history, and thus does not identify a path to improving governance.[1] In contrast, the purpose of this paper is to examine in countries at a crucial stage of political transition the effect of political processes on the emergence of the rule of law.

In order to investigate this question empirically, we develop, for the first time, a methodology for measuring the frequency of changes in power among distinct leaders and among ideologically distinct groups (parties) that is comparable across political systems. We do this by (a) identifying the locus of power of a political regime, (b) defining what constitutes a change in the persons or parties that hold power, and (c) defining what constitutes an ideological change in persons or parties that hold power. We use the methodology to investigate the effect of government turnover on the quality of governance across 27 postcommunist countries.

The postcommunist countries are an interesting setting in which to explore the role of government turnover. In going from a planned to a market economy, an entirely new set of rules is required. Does turnover of power hurt or help in establishing these rules? This is a longstanding question in political science, to which intuition provides little guidance. For instance, a drafter of the U.S. Constitution, Alexander Hamilton, declared in the Constitutional Convention that life terms for senators and the chief executive "would produce better government than would a relatively free-wheeling democracy with a rapid

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[1]Dixit (2005) in his survey of the literature on institutions and growth, wryly concludes: "Interpreted literally as recipes or policy recommendations, these [results] require a less-developed country to use plate tectonics to move itself to a more favorable location, or to turn the clock back and invite British colonizers, of course cleaning up the local disease environment and getting rid of mineral resources and resources suitable for plantation agriculture beforehand. As a practical matter, these findings are merely telling countries to accept their fate" (pp. 4–5).

turnover in the higher offices'' (Hardin, 1989, p. 119); life terms for senators would attract the ''best citizens'' to run for office and permit them to be ''firm'' against the transient impulses of the people (Kurland and Lerner, 1987, vol. 1, p. 256). Frequent political turnover might also be an impediment to the establishment of rule of law if turnover increased the discount rate of politicians, or if electoral competition created greater motivation or opportunities for corruption. Many countries in Latin America and elsewhere have been characterized by ''alternation of power between genuinely different political groupings . . . [which] seem only to trade the country's problems back and forth from one hapless side to the other'' (Carothers, 2002, p. 11). It is not uncommon to hear that frequent changes in political leadership are a binding constraint to sustaining reform momentum, and to hear China mentioned as a model of political stability and credible government commitment – a commitment that facilitated reforms in institutions of economic governance (see Kolodko, 2003; Lau et al., 2000).

On the other hand, Anders Aslund (2002, p. 120) writes that

> The long tenure of the infirm president Yeltsin . . . provided Russia with a ''stability'' that favored the corrupt elite. Poland, the three Baltic countries, and Bulgaria have changed governments on average every year for the last decade, and they are among the most successful reformers.

Here, we examine the relationship between the expected government turnover and the emergence of the rule of law. Our key theoretical assumption is that firms seek *durable* protection or favors from the state. When the government turnover is low, influential firms can obtain durable protection as *private* goods from the governing party or leader and, in doing so, they undermine the credibility of the state as an impartial protector of *public* rights (the rule of law). When the expected government turnover is high, clientelistic relationships provide little security, which reduces the demand for investing in influence.[2]

The mechanism investigated here is similar to that recently studied by Campante et al. (2009), who distinguish between a *demand effect* when the private sector is keen to bribe stable incumbents, and a *horizon* effect when political instability leads the incumbent politicians to embezzle as much as they can during their short window of opportunity. Taken together, these effects would produce a U-shaped relationship between political stability and corruption. Campante et al. (2009) find support for their hypothesis on a dataset of about 100 countries since the mid-1970s. Because the average tenure in the office of the chief executive plays a vital role in their test of the relationship between regime stability and corruption, in testing this hypothesis they exclude from their sample those countries for which the tenure of the chief executive is truncated. Hence, they exclude the postcommunist countries that became independent only recently with the break-up of the Soviet Union, Yugoslavia, or Czechoslovakia.

Governance in postcommunist countries has been empirically studied by Hellman (1998), who argued that corruption peaks among ''incomplete'' reformers, i.e. countries that have initiated reforms to create a market economy but have not carried them through. Hellman does not examine the relationship between political turnover and the process of reform. Treisman (2002) argues that relatively low income levels and

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[2]Dixit et al. (2000) study a different channel through which political turnover can improve the quality of governance. In their model, two parties expect to alternate in power indefinitely, and this prospect makes it in the self-interest of each party to share wealth broadly rather than privileging its own constituents.

limited experience of democracy can account for most of the perceived corruption in postcommunist countries. In a very interesting paper, Campos and Giovannoni (2007) distinguish between "lobbying" – by which they mean the firms' investment in influence to shape the law for private benefit – and "corruption" – by which they mean bribery to skirt existing rules. They argue that in postcommunist countries the two are substitutes; larger and foreign-owned firms are more likely to engage in "lobbying" (i.e. investment in influence) than in petty corruption. They also find that judged by self-perceived influence, lobbying is much more effective.

In the next section, we set out a hypothesis regarding the relationship between the emergence of the rule of law and political turnover. In Section 3, we describe our measures of government turnover. In Section 4, we discuss the estimation strategy and identification. Section 5 contains the empirical results, and Section 6 concludes the paper.

## 2. THE EFFECT OF EXPECTED TURNOVER IN POWER ON "GRAND CORRUPTION"

This section informally sets down our hypothesis of the relationship between political turnover and the emergence of the rule of law. Appendix A presents a simple formal model of investment in influence.

At the early stages of an opening to democracy, the political process is easily corrupted. This is because civil society, the media, and representative institutions are weak and the legal boundaries on corruption are neither well defined nor enforced. Special interests have few constraints on their ability to buy favors from politicians. The postcommunist countries faced the special challenge of dealing with a double transition of political and economic regimes. In the immediate aftermath of the collapse of communism, the weakness of the new institutions for establishing and enforcing private property rights amplified the insecurity of the transition, and did so in an environment where the state owned great wealth and thus had great scope for awarding preferential treatment.

Firms that shift some of their resources in money and time into "investing in influence" may obtain state protection for property rights à la carte. By investing in influence, we mean an activity that is broader than bribery or corruption and in which the corrupter may try to influence the state itself, rather than one of its agents, to induce partiality in state law-making, rulings, and enforcement. We call this "grand corruption"; it is the quality of the rule of law that is directly affected by the exercise of political power. Clients may benefit and their rivals lose out through many mechanisms: for instance, when laws are tailored to deliver specific advantages or disadvantages; when neutral laws and regulations are interpreted in discriminatory ways; and when law enforcement and police powers are arbitrarily used or withheld (Hellman et al., 2003; North, 1990; Olson, 1982). The activity includes deals that are not strictly illicit, in which a political official uses the power of his office to obtain a private gain for himself and his clients.

A direct way to break the vicious circle of weak institutions and strong particular interests is through a turnover in power. When a turnover occurs, the set of political players in power changes. While these players, in their turn, may be beholden to some interest groups, it is unlikely that these would be the *same* interest groups that supported the previous government. Thus, the rate of return to buying influence for the previous group drops sharply. This is not merely a replacement of one group of influence buyers by another. A more fundamental change occurs. The newly powerful influence-buyers realize that the same fate may await them too.

The expected return on influence buying is reduced if power changes hands and individuals revise downward their expectations that any given party will long retain its hold on power – i.e. if democracy and political change become routinized. Turnover in power can thus signal a fundamental change in regime; this, in turn, reduces the demand for grand corruption. Further, if the turnover occurs as a result of an election, it conveys the information that the rules of the game have changed compared with the old system and that hold on power is time-bound and follows precise formal rules. "Sweet deals" may be rapidly undone – not by the caprice of the rulers, but by popular vote. In a stable authoritarian system, an investor in influence has to worry about not offending the ruler and making sure that the ruler lives up to his (possibly implicit) bargain. But in a democracy, the bargain may not be enforceable even if there is good will on both sides, for it could happen that the rulers are thrown out of office. *With* political turnover, one set of beliefs and institutions would thus be created; *without* it, an "old" set of beliefs and institutions is much more likely to be held and validated. Until political turnover is routinized, actors may even doubt (and in many transition countries, did doubt) whether the incumbent party or leader will accept defeat in a popular vote and play according to the formal rules of the democratic regime.[3]

If frequent change in the seat of power comes to be expected, firms seeking stable treatment from the state will face a choice: either to try to influence the entire political spectrum of parties or to forsake clientelistic relationships with political parties. Some, of course, may pursue the first strategy. Yet, this may be a very costly option; it means paying for preferential treatment more than once. Further, unless the differences among the political parties are narrow, ideological divides may make some clientelistic relationships infeasible. For instance, it may be difficult to bribe an avowedly free trade party for protectionist legislation, or a nationalist party for preferential access for a minority ethnic group to state contracts. Thus, we would expect that more frequent turnover in power among political groups would weaken the market for influence and increase the demand for the rule of law. By weakening the corrosive power of bribery on fledgling institutions, more frequent turnover in power should help the slow process whereby a rule of law state is created, with a generalized provision of clear property rights and state protection.

Consistent with this view, Grzymala-Busse (2003, especially Tables 1 and 2) identifies sharp contrasts in the quality of governance and in the institutions that developed between two groups of postcommunist states: Poland and Hungary, which had frequent political alternation, and the Czech Republic and Slovakia, where the tenure of governing parties was much longer. Poland and Hungary established a civil service and judicial and enforcement bodies that were insulated from interference by the governing political party; they regulated political party funding and required that it be public. The Czech Republic and Slovakia undertook none of these reforms, and in these states, ownership rights were more closely linked to political patronage. In Russia, it was common for laws and presidential decrees to provide special treatment to a single-named firm (Slinko et al., 2004), a process that, as Pistor (1997, p. 176) notes, "formally legalizes the habit of granting special privileges." Grand corruption has also had a profound and pervasive effect in

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[3]Uncertainty regarding the stability of democracy characterized, for example, the transitions in Spain (recall Tejero's attempted coup), Portugal, and Greece. An overview of all countries that experienced a movement away from authoritarianism in the past 30 years concludes, "By far the majority . . . have not achieved relatively well-functioning democracy or do not seem to be deepening or advancing whatever democratic progress they have made" (Carothers, 2002, p. 9).

undermining reforms: when an anticorruption police was created, this police might be used in a partisan and arbitrary way; when a regulatory institution was created, it might not be funded; when a bankruptcy law was enacted to shore up property rights, it might become a tool by which the courts abused the rights of legitimate owners and wrested property from them (see for example Black and Tarassova, 2003; Black et al., 2000; Braguinsky, 2009; Sajó, 2002).

## 3. DEFINING AND MEASURING TURNOVER IN POWER

Testing the hypothesized relationship between turnover in power and the emergence of the rule of law calls for relating indicators of the quality of governance to measures of expectations about the probability of turnover. We do not observe expectations, but certain events that occur during political liberalization, particularly at the early stages, may have a large effect on expectations and thus proxy for them. We assume that the greater the frequency of turnover in power since the onset of political liberalization, the greater the expectation that turnover has been routinized. We have constructed measures of government turnover for all 27 postcommunist countries for which data are available.

To define political turnover in a meaningful way, we need to decide three things: Where is the seat of power in the national government? What constitutes a change in the occupant of the seat of power? When can this change be said to constitute a change in ideology, e.g. a left-wing coalition replacing a right-wing coalition? This last question is interesting because ideological change may create a cleaner break in the prevailing corruption contracts between firms and the state if it is more difficult for the same businessmen to "buy" ideologically different politicians. Alternatively, the personal relationship between government leaders and investors in influence might matter more than ideology.

In identifying the seat of power, we distinguish *authoritarian*, *presidential democratic*, and *parliamentary democratic* systems. The need to distinguish authoritarian from democratic countries arises because, in the former case, the seat of power is identified by the person or persons who are the effective rulers, rather than by the formal constitutional arrangement, as in the latter case. We define the seat of power as *democratic* where the legislature is elected and executive law-making preferences, in practice, may be vetoed or blocked by formal legislative institutions. We define the seat of power as *authoritarian* if no elected legislative institutions are able to block the law-making decisions of executive rulers.[4]

The non-authoritarian countries are divided into two groups – presidential democracies and parliamentary democracies – based on whether there is a presidency that possesses significant law-making power. *Presidential democracies* have "strong presidents," who are defined as having either decree powers or veto power that can be overridden only by legislative supermajorities. *Parliamentary democracies* are non-authoritarian states without strong presidents.

Once the locus (or seat) of power is identified, we have to define what constitutes a change in the power-holder. We count personal *leadership* changes in the locus of power. In authoritarian states, this is a change in the ruler. In *parliamentary* democracies, a

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[4]We note that, when countries have had democracy scores less than or equal to −4 according to the *Polity2* variable from the Polity IV database, their legislatures have not been able to block executive decisions. By contrast, countries that have had *Polity2* scores greater than −4 have had legislatures with such blocking power. The *Polity2* score ranges from −10 (full autocracy) to +10 (full democracy) (Marshall and Jaggers, 2007).

change is counted when the control of all veto-wielding legislative houses changes. What happens if there is a broad change in the governing coalition in a legislative house, but one or more small parties remain from the old governing coalition? We count a change only if at least three quarters of the seats of the new governing coalition are held by parties that were *not* a part of the old governing coalition. In *presidential* democratic systems, the president, too, must change. A change of control of some, but not all, of the veto-wielding institutions is *not counted*.

For example, if the control of a unicameral legislature shifts and the presidency is not strong, this counts as a leadership turnover. If the control of a unicameral legislature shifts but the holder of a strong presidency does not, this does not count as a change. If a new president is elected but the control of the legislature does not change, then again this does not count as a change. On the other hand, if a change in all the law-making institutions of the state is completed over more than one electoral cycle, the change is coded as having occurred in the year that the change in control becomes complete. Thus, if the control of the presidency changed in an earlier election and has not changed since and if, in the current election, the control of the legislature shifts to parties supportive of the president, then one change is counted as having occurred in the current election.

Table 1 presents in column (1) summary statistics for cumulative leadership turnover in the postcommunist countries. As shown in the table, no turnover in the seat of power occurred in Kazakhstan, Turkmenistan, and Uzbekistan (up to and including 2006). How are scores of zero possible? Why does not the collapse of the USSR automatically count in our measure of turnover for all the Soviet successor states? Our coding principle is that the first successor state government must be a new ruler in its republic to be counted as a change. If a new institutional ruler did come to power, we code the change as occurring in the year that he began to wield effective authority in the republic – either 1990 or 1991. The collapse of the Soviet Union did not involve a change in the holder of the seat of power in Azerbaijan, Belarus, Kazakhstan, Tajikistan, Turkmenistan, and Uzbekistan. For the same reason, no turnover is counted as having occurred in 1991 in Macedonia, Montenegro, and Serbia with the break-up of Yugoslavia. In Table B.1 in Appendix B, we list the 27 postcommunist countries in our sample, along with their cumulative turnover scores by 2006.

A refinement of leadership turnover, which we call *ideological turnover*, is to count only those political turnovers in which the shift of power also entails a shift of ideology. To define ideological turnover, we use a new database on political institutions, the Post-communist Party Ideology database developed by Horowitz and Browne (2005). Ideologies of governments here are understood in terms of the positions of ruling individuals, groups, or parties on the most salient policy issues. Following the tradition of much applied work in comparative politics, we use a two-dimensional policy space, where one dimension captures the left–right differences in economic ideology and policy preferences, and the other dimension captures differences in "national identity" ideology and policy preferences.[5] In economic policy, the main issue that faced the postcommunist world in its first dozen years was whether, and how, to make the transition from planning or market socialism to capitalism. In debates over national identity, the main policy issues

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[5]In addition to a general ideology, specific policy preferences are considered. For example, a party may call itself "communist" or "socialist" and retain some communist ideology and rhetoric, but may advocate exclusively social-democratic, market-oriented economic policies. Or a party may call itself "liberal democratic" but advocate social-democratic policies. In such cases, it is policy preferences that are taken to define the party's relative ideological position.

TABLE 1  SUMMARY STATISTICS FOR TWO MEASURES OF TURNOVER IN POSTCOMMMUNIST COUNTRIES, UP TO AND INCLUDING YEAR 2006

|  | Cumulative leadership turnover | Cumulative ideological turnover |
| --- | --- | --- |
| Mean | 2.71 | 1.93 |
| Median | 3 | 1.5 |
| Minimum | 0[a] | 0[b] |
| Maximum | 5 | 4 |
| Countries with the maximum | Lithuania Slovakia | Lithuania Slovakia Bulgaria Hungary Macedonia |
| Correlation with cumulative leadership turnover[c] | 1 | 0.84 (0.00) |

Notes: $p$ value is in parentheses.
[a]Countries are Kazakhstan, Turkmenistan, and Uzbekistan.
[b]Countries are those listed in the preceding note, plus Belarus and Tajikistan.
[c]Correlation is calculated across all years.

TABLE 2  IDEOLOGICAL CLASSIFICATION SCHEME FOR PARTIES CONTESTING ELECTIONS IN POSTCOMMUNIST COUNTRIES, AND NUMBER OF COUNTRY/YEARS RULED BY DIFFERENT REGIMES

|  | Economic ideology | | | |
| --- | --- | --- | --- | --- |
|  | Far left | Center-left | Center-right | Far right |
| National identity policy |  |  |  |  |
| Extreme nationalist | 0 | 0 | 0 | 0 |
| Moderate nationalist | 66 | 188 | 229 | 0 |
| Moderate autonomist | 3[a] | 0 | 0 | 0 |
| Secessionist | 0 | 0 | 0 | 0 |

Notes: Total number of country/years is 18 years times 27 countries = 486.
[a]Moldova 2001, 2002, and 2003.

concerned the status and treatment of internal ethnic minorities and of ethnic groups in neighboring countries. To code leaders and parties, we use criteria described in Horowitz et al. (2009) to distinguish four intervals along each of the two ideology-cum-policy dimensions, as shown in Table 2. Table 2 reports in each cell the total country/years that ideologically different parties or coalitions were in power over the period 1989–2006. For example, center-left parties were in power for 188 country/years or almost 39% of country/time.

Table 3 illustrates the construction of turnover indices for Hungary and Russia. Hungary is a parliamentary democracy with a unicameral legislature and a weak presidency, and so only changes in the control of the legislature are relevant for measuring leadership turnover. Through the end of 2006, parliamentary elections brought new ruling parties or party coalitions to power in March 1990 (center-right), May 1994 (center-left), May 1998 (center-right), and April 2002 (center-left). All of these political turnovers brought ideologically different parties or coalitions to power, so that there is no difference between the value of our measures of leadership and ideological turnover.

TABLE 3   Construction of the Cumulative Turnover Measures for Hungary and Russia

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hungary | | | | | | | | | | | | | | | | | | |
| Leadership turnover | | 1 | | | | 2 | | | | 3 | | | | 4 | | | | |
| Ideological turnover | | 1 | | | | 2 | | | | 3 | | | | 4 | | | | |
| Ideology | F | R | R | R | R | L | L | L | L | R | R | R | R | L | L | L | L | L |
| Political system | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Russia | | | | | | | | | | | | | | | | | | |
| Leadership turnover | | | 1 | | | | | | | | 2 | | | | | | | |
| Ideological turnover | | | 1 | | | | | | | | | | | | | | | |
| Ideology | F | F | F | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R |
| Political system | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

Notes: Ideologies are F, far left; L, center-left; R, center-right. Political systems are 1, parliamentary; 2, presidential; 3, authoritarian.

Russia has had a *Polity2* score above −4 throughout the period of our analysis (the score was 4 until 1999, and 7 beginning with 2000). We characterize Russia as a strong presidency, and thus changes must occur in both the presidency and the legislature to be counted as a change in the seat of power. The first political turnover occurred in August 1991, when the failure of the hard-line communist coup attempt against Mikhail Gorbachev transferred effective power to Boris Yeltsin and the Russian legislature and led to the break-up of the Soviet Union. President Yeltsin remained in power until December 1999, when he resigned in favor of Vladimir Putin. As a prime minister, Putin had led his United Russia Party to success in the December 1999 lower house elections. Thus, in December 1999, a full political turnover was completed as a new president and a supporting lower house coalition came to power. The regionally selected upper house, founded in 1996, had its selection principles amended to guarantee support for Putin. Through 2006, this late 1999 leadership turnover was the only one since August 1991. Putin and his supporting parliamentary coalition are not classified as having a different ideology from Yeltsin and his supporting coalition, and thus there is no ideological turnover in 1999. In supporting information in Appendix S1 (available on request) we provide short narratives to explain the turnover scores for the other 25 countries in our sample.

## 4.  EMPIRICAL STRATEGY

### 4.1  Measures of the Rule of Law

Our preferred rule of law measure is one of the six Worldwide Governance Indicators (WGI) constructed by the World Bank (Kaufmann et al., 2007).[6] This indicator measures "the success of a society in developing an environment in which fair and predictable rules form the basis for economic and social interactions, and importantly, the extent to which property rights are protected" (Kaufmann et al., 2003, p. 4). Among the available governance measures, we believe that this measure captures most closely the phenomenon with which we are concerned – the quality of the rule of law that is directly affected by the exercise of political power. Another advantage of the WGI is that they do not depend on a single source or a single type of respondent. The WGI are composite indicators based on many preexisting (original) sources, which include expert surveys and estimates by governments, NGOs, and credit rating agencies. The hypothesis behind the design of the WGI is that the sources that they use are measures, with error, of the same underlying reality (say, rule of law). As Kaufmann et al. (2007, p. 10) write:

> [t]he premise underlying [the] . . . approach should not be too controversial – each of the individual data sources . . . provides an imperfect signal of some deep underlying notion of governance that is difficult to observe directly. This means that as users of the individual sources, we face a signal-extraction problem.

The drawback of the WGI is that their creators' decision on what the individual data sources were really trying to measure (say, rule of law as opposed to control of corruption or government accountability) is largely subjective. An original source might have had as its objective to measure a phenomenon, say B, which has to be "fitted" into a niche of the phenomenon A or C in the set of governance indicators as defined by WGI.[7]

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[6]Later, we also use another WGI measure, *control of corruption*.
[7]See the debate on WGIs between Marcusj Kurtz and Andrew Schrank, and Daniel Kaufmann, Aart Kraay, and Massimo Mastruzzi in the *Journal of Politics*, April 2007, pp. 538–572.
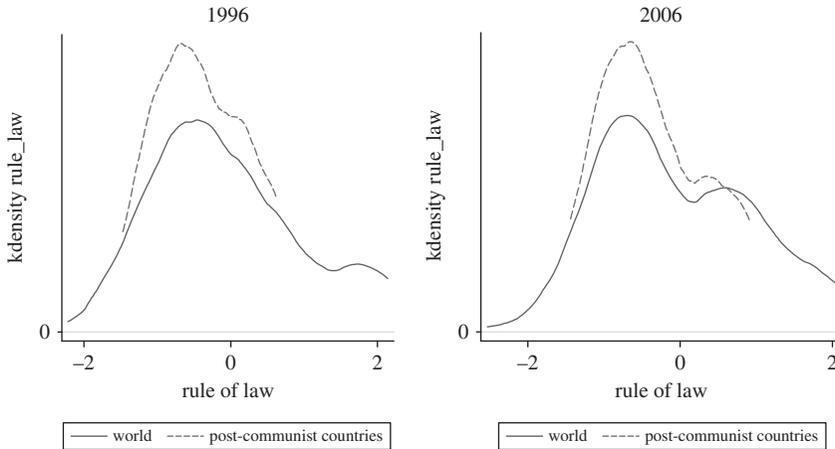
Figure 1.   Distribution of WGI rule of law score for the world and postcommunist countries.

The *rule of law* indicator is scaled so that the average and median value for the world is zero, and a country's score gives its *relative* position in the world. However, among those preexisting data sources that are measured in absolute terms, there is no clear time trend for the world as a whole between 1996 and 2006. Thus, Kaufmann et al. (2007) conclude that changes in the measures for each country over time can be interpreted as absolute changes. For the postcommunist countries, there is a slight upward time trend in the mean rule of law: the mean is $-0.44$ in 1996, $-0.42$ in 2000, and about $-0.35$ in 2004–2006, where a unit is a standard deviation for the world. Figure 1 shows that there is a great variation in governance outcomes among the postcommunist countries. Countries with the highest rule of law scores in 2006 (Estonia and Slovenia) are in the 75th percentile of all countries in the world, whereas those with the lowest scores (Kyrgyzstan and Turkmenistan) are in the bottom 10th percentile.

## 4.2   The Importance of Early Turnover

Figure 2 is a scatterplot of cumulative leadership turnover in the early period of transition from communism, 1989–1995, and the rule of law scores in 2006, more than 10 years later. The figure shows that large differences in the rule of law score are associated with each additional early leadership turnover; the simple correlation between the rule of law in 2006 and the cumulative leadership turnover up to (and including 1995) is 0.71.[8] Every country that had at least three leadership turnovers by 1996 has a rule of law score in 2006 above the world average.

Figure 3 presents the same data in a different way. We divide the postcommunist countries into two groups, those with at most one leadership turnover by the end of 1995 and those with two or more. For each group, the figure plots the distribution of the rule of law score in 2006. The first group had an average score of $-0.83$, while the second

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[8]The use of an alternative governance measure (control of corruption) and an alternative turnover measure (ideological turnover) yields virtually identical results to those shown in the figure.
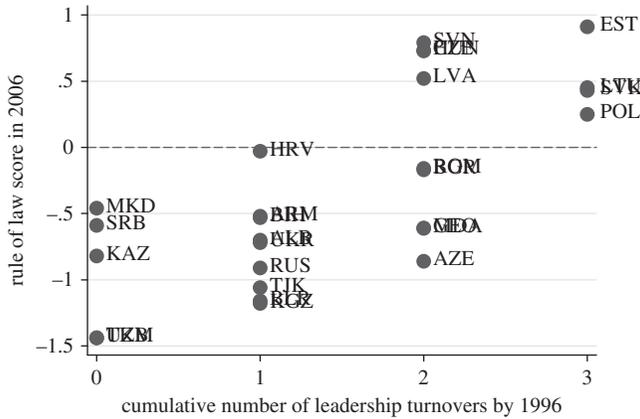
Figure 2. Cumulative leadership turnover before 1996 and rule of law score in 2006 in postcommunist countries.
Note: The full country name for each abbreviation is shown in Table B.1.

had an average score around 0,[9] and the two distributions do not overlap very much at all.

### 4.3 The Estimation

We measure cumulative government turnover between 1989 and the year $t$, where $t \in \{1996, 1998, 2000, 2002, 2003, 2004, 2005, 2006\}$.[10] We use that measure as a proxy for expectations as of time $t$ of government turnover in the future. We treat the period 1996–2006 as one "slice of time." Our hypothesis is that the cumulative number of leadership or ideological turnovers is positively related to governance indicators ($GOV$). We estimate the reduced form equation

$$GOV_{it} = \beta_0 + \beta_1 ALT_{it} + \Gamma' X_{it} + \varepsilon_{it},$$

where the subscripts $i$ and $t$ index countries and years, respectively. $ALT_{it}$ is the cumulative leadership or ideological turnover ("turnover," for short) and $X_{it}$ is a vector of covariates that we discuss below.

Our dependent variable is WGI's *rule of law*. On the right-hand side, we include variables that previous work has found to influence the quality of governance: (a) level of income, which we measure as gross domestic product (GDP) per capita in 1990 so that we do not capture the effect of what we are trying to predict (governance) on the predictor variable (income), (b) the extent of democracy in the year that governance is measured, proxied by the *Polity2* variable running from −10 to +10, (c) cumulative years of war, (d) share of fuel exports in GDP,[11] and (e) the number of years of

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[9]The $t$-test rejects equality of the means.
[10]This set is all the years for which WGIs are available. At first, WGIs were produced once every two years, and later annually.
[11]We use the earliest year available for fuel exports (1996 or 1997) in order to abstract to the extent possible from endogeneity between (bad) governance and dependence on fuel exports. A large literature on the "natural resource curse" points to a variety of reasons why a high share of GDP from natural resource exports, such as oil and natural gas, which require little or no processing, would lead to worse governance – see for example Beck
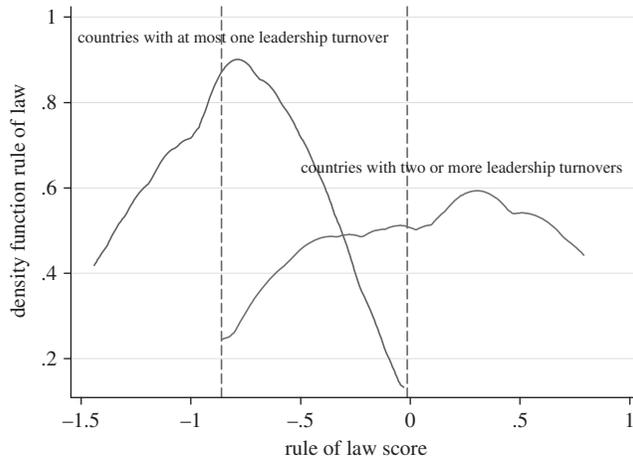
Figure 3.   Kernel density functions of 2006 rule of law score.
Note: The means are shown by the two vertical lines.

TABLE 4   DESCRIPTIVE STATISTICS FOR SELECTED VARIABLES, POSTCOMMUNIST COUNTRIES

|  | Mean | Standard deviation |
|---|---|---|
| Rule of law[a] | − 0.390 | 0.669 |
| Control of corruption[a] | − 0.400 | 0.650 |
| GDP per capita in 1990 in natural logs, $PPP | 8.87 | 0.59 |
| Fuel exports as share of GDP in 1996–1997 | 0.047 | 0.103 |
| Democracy (*Polity2* score)[a] | 3.68 | 6.63 |
| Duration of communist rule (years) | 55.2 | 13.3 |
| Precommunist literacy (% of adult population) | 55.2 | 30.2 |
| Urbanization rate in 1989–1990 (%) | 56.2 | 12.3 |

Note: [a]For the period 1996–2006.

communist rule.[12] Table 4 presents summary descriptive statistics, and Appendix B gives the sources and exact definitions of the variables.

Note that democracy and political turnover measure distinct aspects of the political process. Democracy can coexist with infrequent turnover in power, as long rules of Social Democrats in Sweden (1936–1976) and Liberal Democrats in Japan (1955–1993) attest. However, in our sample, in which political liberalization is recent, the correlation between cumulative turnover and the level of democracy is high, about + 0.68 (Table 5).

It is also important to note that the years of communist rule is practically the same variable (although slightly more finely grained) as two other variables that have often been used in empirical studies of postcommunist countries, namely membership in the former Soviet Union (or Commonwealth of Independent States) and eligibility for

and Laeven (2006), Murshed (2004), Hoff and Stiglitz (2004, 2008), and Robinson et al. (2006). A contrary finding, however, based on an analysis of panel data, is in Haber and Menaldo (2008).
[12]Regarding democracy, see for example Treisman (2002) for transition economies and Goldsmith (1999) and Lipset et al. (1988) for a general treatment. For the impact of the political system, including communist rule, on governance, see for example Lederman et al. (2005).

TABLE 5   CORRELATIONS AMONG POLITICAL VARIABLES

|  | Cumulative leadership turnover | Cumulative ideological turnover | Number of observations |
|---|---|---|---|
| Democracy[a] | 0.68 (0.00 | 0.69 (0.00) | 475 |
| Duration of communist rule[b] | − 0.77 (0.00) | − 0.78 (0.00) | 27 |

Notes: $p$ values are in parentheses. Each observation is a country/year.
[a]Calculated across all years.
[b]Calculated for the year 2006 only.

membership in the European Union (EU). All countries that were formerly part of the USSR, with the exception of the Baltics and Moldova, have between 68 and 72 years of communist rule. All remaining countries have between 42 and 45 years of communist rule. The cleavage is the same between EU eligible and non-EU eligible countries. All countries with fewer than 45 years of communist rule (Eastern Europe and the Baltics) are eligible for EU accession (and, of course, at the time of writing, many are members).[13] None of the others – at the time of this writing (2009) – is. Therefore, the number of years of communist rule variable confounds the effects of the duration of communist rule with two other factors: (a) historic cleavage between Eastern Europe and the more Russian-dominated Eurasian heartland and (b) the cleavage between states eligible and states ineligible for EU membership. The correlation between cumulative turnover by year 2006, and the number of years of communist rule experienced by a country, is strongly negative, at about − 0.77 (see Table 5).

### 4.4   Endogeneity

A central difficulty in our analysis is that turnover is itself an endogenous variable. There may be two-way causation between turnover and the rule of law. Better governance in any given year expands the scope for political competition, which may increase political turnover and have persistent effects on the quality of governance. Then, the measured influence of turnover would reflect a simultaneous influence between turnover and governance. In Russia, one reason so little political turnover occurred in what at the start appeared like promising circumstances (e.g. a tolerant and highly educated population) was that the oligarchs joined forces to secure Yeltsin's reelection in 1996 from a rock-bottom support rate in single digits using the "loans-for-shares program" of 1995–1997. This was in essence a corruption contract in the form of a forward sale. This consolidated an oligarchic structure of power. The influence of governance on turnover could also go the other way, if more corrupt governments are more likely to lose power. The revelation of a large anonymous donation to a political party in the ruling coalition in the Czech Republic by a former international tennis star shortly after his company purchased the country's third-largest steel mill was the trigger for the fall of that government in 1997.

To abstract from simultaneity, we use as instruments for turnover two variables: (1) the level of literacy in the country before communist rule and (2) the level of urbanization around the time of regime change, in 1989–1990. The logic is as follows. We argue that

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[13]The only exception is Moldova, which is not EU eligible although it belongs to a group of countries with a history of 45 years of communist rule.

the main ideological element responsible for rejecting communist regimes lay in a national identity-based "ideology of revival." Communism was seen as having represented a setback in the fulfillment of national and personal objectives, compared with capitalism in the western European nations (see Horowitz, 2004). A national identity-based ideology of revival defined in opposition to communism was associated with stronger anti-communist opposition and more reformist communist parties and thus predicts support for democracy as well as an ideological consensus on a transition to a western European-style legal system and market economy. This tended to produce a democracy with relative ideological consensus between major center-right and center-left parties. This, in turn, contributed to produce relatively high rates of both leadership and ideological turnover. Precommunist literacy is a plausible predictor of the strength of the national identity-based ideology of revival defined in opposition to communism. On the other hand, higher literacy and stronger anticommunist nationalism (the "ideology of revival") are no guarantees of greater probity, either in government or in ordinary life. Thus, we do not predict a direct influence from greater literacy in the precommunist period to better governance today.[14]

We use the level of urbanization in 1989–1990 as an additional instrument on the assumption that political mobilization is more easily achieved in urban areas. More urbanized countries can be expected to have a politically more engaged populace, which could also be a factor in the more frequent turnover of government. Since we control for income per capita (which is strongly correlated with urbanization), we do not expect any direct link between urbanization and the quality of the rule of law.

### 5. EMPIRICAL RESULTS

#### 5.1  Key Results for Rule of Law and Turnover in Power

Table 6 reports the results for leadership turnover, and Table 7 reports the results for ideological turnover. The first three columns in each table present regressions with the *rule of law* as the dependent variable. So as not to understate the standard errors, the *p* values are based on standard errors corrected to take into account correlation in the error term across years in a given country (as well as heteroskedasticity).

There is little variation in rule of law scores within countries for the period 1996–2006. The time variation of rule of law scores accounts for only 1% of the variation in the total pooled cross-section/time-series data.[15] Given this, we cannot test the hypothesis that, within a country over time, turnover improves the quality of governance, in particular, we cannot test a fixed effects model. We estimate three types of regressions: (a) pooled time-series and cross-section, (b) turnover in the period 1989–1995 on 2006 scores for governance, and (c) a variant of (a) that instruments for turnover.

The first columns in Tables 6 and 7 report the results of pooled cross-sectional and time-series regressions. Column (1) of Table 6 shows that one additional leadership turnover is associated with a significant improvement in the rule of law score ($p$ value $= 0.002$). The estimated coefficient of 0.22 means that, in our sample, an increase of one leadership turnover is associated with an increase of more than one-fifth of a global standard deviation in the rule of law score. The only other predictor of rule of law in column (1)

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[14]However, the literacy level in the precommunist period itself reflects aspects of the precommunist period that might persist and might influence the quality of governance today in ways not mediated by government turnover. Thus, our instrument may be imperfect.

[15]When we regress residuals from the pooled regression against time, they display no time trend.

TABLE 6   OLS AND IV ESTIMATES OF THE RELATIONSHIP BETWEEN QUALITY OF GOVERNANCE AND LEADERSHIP TURNOVER, 1996–2006

| Dependent variable | Rule of law | | | Control of corruption | | |
|---|---|---|---|---|---|---|
| | Pooled OLS | Cross-section 2006 | 2SLS | Pooled OLS | Cross-section 2006 | 2SLS |
| Method of estimation | (1) | (2) | (3) | (4) | (5) | (6) |
| Leadership turnover | 0.222*** | | 0.634*** | 0.201*** | | 0.576*** |
| | (0.002) | | (0) | (0.006) | | (0) |
| Leadership turnover 89–95 | | 0.280*** | | | 0.256*** | |
| | | (0.001) | | | (0.001) | |
| GDP per capita in 1990[a] | 0.668*** | 0.758*** | 1.00*** | 0.698*** | 0.723*** | 0.918*** |
| | (0.001) | (0) | (0) | (0.001) | (0) | (0) |
| War (cumulative) | − 0.096* | − 0.028 | − 0.096** | − 0.084** | − 0.006 | − 0.074** |
| | (0.068) | (0.46) | (0.019) | (0.035) | (0.79) | (0.038) |
| Fuel exports/GDP in 1996–1997 | − 5.84** | − 4.88** | − 13.66*** | − 6.927*** | − 8.54*** | − 13.44** |
| | (0.022) | (0.045) | (0) | (0.006) | (0.001) | (0) |
| Duration of communist rule | − 0.011 | − 0.011 | 0.009 | − 0.010 | − 0.100 | 0.008 |
| | (0.282) | (0.21) | (0.505) | (0.276) | (0.20) | (0.522) |
| Democracy (*Polity2*) | − 0.036* | − 0.025 | − 0.109*** | − 0.040** | − 0.039** | − 0.103*** |
| | (0.079) | (0.16) | (0) | (0.049) | (0.026) | (0) |
| Constant | − 5.785*** | − 6.40*** | − 10.16*** | − 6.03*** | − 6.00*** | − 9.372*** |
| | (0.003) | (0) | (0) | (0.002) | (0.001) | (0) |
| $R^2$ adjusted | 0.755 | 0.90 | | 0.724 | 0.90 | |
| F | 31.36 | 52.70 | | 23.47 | 55.71 | |
| Number of observations | 183 | 23 | 183 | 183 | 23 | 183 |
| Hansen J statistic | – | – | 0.045 | – | – | 0.309 |
| | | | (0.83) | | | (0.58) |

Notes:
***Significant at 1%.
**Significant at 5%.
*Significant at 10%.
p values shown between parentheses. "0" indicates $p = 0.000$.
The countries not included in the regressions due to incomplete data are Bosnia, Montenegro, Tajikistan, and Turkmenistan.
Standard errors are clustered by country.
[a]In natural logs.

(Table 6) that is significant at the 1% level is the pretransition income level. We find that each 10% increase in 1990 per capita GDP is associated with an increase in the rule of law score of almost 0.07 standard deviation units. The results are weaker for ideological turnover. Column (1) of Table 7 shows that although positively associated with rule of law, ideological turnover is not a statistically significant predictor of rule of law. The only significant predictor in this regression is 1990 income level. The importance of this variable has been established before by Treisman (2002). Its power as a predictor of rule of law in the posttransition economies is borne out here too. $R^2$ is approximately 0.7.

To examine the predictive power in the cross-section of turnover in the *early* years following political liberalization, we report in column (2) of Tables 6 and 7 the estimates of regressions in which the measure of turnover is the cumulative turnover up through 1995 only, and the outcome measure is the rule of law in 2006. Our hypothesis predicts that turnover in 1989–1995, by conveying a signal about the observance of political rules of the game early on, should reduce the returns to investing in influence and improve

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TABLE 7   OLS and IV Estimates of the Relationship between Quality of Governance and Ideological Turnover, 1996–2006

| Dependent variable | Rule of law | | | Control of corruption | | |
|---|---|---|---|---|---|---|
| | Pooled OLS | Cross-section 2006 | 2SLS | Pooled OLS | Cross-section 2006 | 2SLS |
| Method of estimation | (1) | (2) | (3) | (4) | (5) | (6) |
| Ideological turnover | 0.102 | | 1.127** | 0.116** | | 1.133** |
| | (0.125) | | (0.033) | (0.038) | | (0.021) |
| Ideological turnover 89–95 | | 0.340* | | | 0.399*** | |
| | | (0.061) | | | (0.004) | |
| GDP per capita in 1990[a] | 0.552*** | 0.868*** | 1.139*** | 0.606*** | 0.854*** | 1.200*** |
| | (0.009) | (0) | (0.009) | (0.003) | (0) | (0.003) |
| War (cumulative) | − 0.085 | − 0.021 | − 0.059 | − 0.072 | − 0.014 | − 0.050 |
| | (0.178) | (0.602) | (0.574) | (0.128) | (0.497) | (0.61) |
| Fuel exports/GDP in 1996–1997 | − 2.818 | − 5.946** | − 15.97** | − 4.485* | − 10.77*** | − 18.07** |
| | (0.313) | (0.026) | (0.04) | (0.090) | (0) | (0.014) |
| Duration of communist rule | − 0.015 | − 0.007 | 0.045 | − 0.013 | − 0.004 | 0.047 |
| | (0.11) | (0.311) | (0.180) | (0.108) | (0.339) | (0.145) |
| Democracy (*Polity2*) | − 0.007 | − 0.033 | − 0.126* | − 0.040** | − 0.056*** | − 0.143** |
| | (0.727) | (0.103) | (0.055) | (0.049) | (0.002) | (0.028) |
| Constant | − 4.35** | − 7.55*** | − 13.97** | − 4.94*** | − 7.46** | − 14.57*** |
| | (0.027) | (0) | (0.017) | (0.008) | (0) | (0.009) |
| $R^2$ adjusted | 0.702 | 0.873 | | 0.686 | 0.917 | |
| F | 22.30 | 42.47 | | 15.73 | 68.25 | |
| Number of observations | 183 | 23 | 183 | 183 | 22 | 183 |
| Hansen J statistic | – | – | 0.031 | – | – | 0.217 |
| | | | (0.86) | | | (0.64) |

Notes:
***Significant at 1%.
**Significant at 5%.
*Significant at 10%.
*p* values shown between parentheses. "0" indicates $p = 0.000$.
The countries not included in the regressions due to incomplete data are Bosnia, Montenegro, Tajikistan, and Turkmenistan.
Standard errors are clustered by country.
[a]In natural logs.

governance. The results are strongly consistent with this hypothesis for both leadership and ideological turnover. We find that one additional leadership or ideological turnover, *10 or more years before* our assessment of rule of law in 2006, is associated with an improvement of, respectively, 0.28 and 0.34 standard deviation units in the rule of law score (with *p* values of, respectively, 0.001 and 0.061). In both cases (leadership and ideological turnover), pretransition GDP per capita is positively associated with the 2006 rule of law, and fuel export/GDP ratio in 1996 is strongly negatively associated with the rule of law 10 years later. We consider this type of regression the closest in spirit to our hypothesis, namely, that the experience of early turnover molds the expectations of economic actors regarding future turnover and the observance of the rule of law.

However, an alternative hypothesis that could also explain these results is that political turnover is a reflection and an aspect of the rule of law. In regimes that deny basic political freedom, turnover is not possible through elections. To address the simultaneity

problem, we instrument for turnover in the regressions reported in column (3) of Tables 6 and 7. As discussed above, our instruments are (1) the literacy rate before the communist takeover and (2) the rate of urbanization around 1990. Table B.2 in Appendix B shows the first-stage IV regressions. We use GMM (generalized method of moments) with standard errors robust in the presence of both arbitrary heteroskedasticity and arbitrary intragroup (in this case, intracountry) correlation.[16] The level of precommunist literacy is a strong predictor of cumulative leadership and ideological turnover, but the rate of urbanization in 1989–1990 is not significant. The $F$-statistic is 12.4 for leadership turnover and only 3.2 for ideological turnover. The latter value does not pass the conventional requirement of $F > 10$, although Anderson's identification test strongly rejects the irrelevance of instruments in both cases (leadership and ideological turnover). The hypothesis of weak identification is similarly strongly rejected by the Cragg–Donald test for leadership but not for ideological turnover. Thus, our results for ideological turnover have to be taken with more circumspection. Based on Hansen's $J$ statistic, reported in column (3) (Tables 6 and 7), the null hypothesis that instruments are correctly excluded from the second-stage regression is easily accepted for both types of turnover.

Column (3) of Tables 6 and 7 show the second-stage regressions. Instrumented leadership turnover is a significant predictor of the rule of law score ($p = 0.00$) and the effect is very large. One additional turnover is associated with an improvement of 0.634 standard deviation in the rule of law score. For the instrumented ideological turnover, the coefficient is even larger (1.127 standard deviation units) and also statistically significant ($p = 0.033$).

Treisman (2002) has shown that, among postcommunist countries, "years of communist rule" is associated with a large reduction in the quality of governance in the postcommunist period. However, all our tests, which include turnover as a predictor in the regression, find no significant effect of the duration of communist rule. Thus, turnover *mediates* the effect of duration of communist rule on the rule of law (Baron and Kenny, 1986). Recall the ambiguous meaning of the variable for duration of communist rule: a value above 45 years corresponds closely to non-EU eligibility. A tentative conclusion from our results is that the mechanism through which the communist duration variable matters is its influence on government turnover. It is also consistent with this interpretation that, when we exclude years of communism from the second-stage regression (results not shown here), the value of the estimated coefficient for turnover increases.

The coefficient for democracy is near zero and is statistically insignificant in all but one of the regressions reported in columns (1) and (2) of Tables 6 and 7. This is consistent with Treisman (2002), who uses a different measure of democracy (political rights as estimated by Freedom House). The coefficient for democracy is significant but *negative* in our IV regressions. Since the correlation between both types of turnover and democracy is relatively strong (see Table 5), we have to be careful not to assume that, in practice, democracy has no positive effect on rule of law. What we can conclude is that holding the level of turnover constant, increases in the democracy variable are not associated with an improvement in the quality of governance.

Not surprisingly, the cumulative duration of war is associated with a lower rule of law scores; the war variable enters negatively in all regressions, but is statistically significant in only half of them.[17] In the 2006 cross-sectional regression, which is the closest to the

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[16]It is implemented using Stata's *ivreg2* routine.

[17]War has a more pronounced effect when the regressions are run up to 2002 or 2003. As wars in the territories of transition countries have ceased, the impact of the variable on governance has faded somewhat.

spirit of our model, neither duration of communist rule nor democracy nor cumulative duration of war are statistically significant.

### 5.2    Are the Results Robust?

As a robustness check, we present in columns (4)–(6) of Tables 6 and 7 regressions with another measure of governance, "control of corruption," also from the WGI database.[18] This measure is defined as "the exercise of public power for private gain." This measure is also scaled so that the average and median for the world are zero and the standard deviation is one, with a higher score denoting better governance. The results, for the same three specifications as before [ordinary least squares (OLS)-pooled data, cross-section using only 2006 outcomes, and IV], and leadership or ideological turnover, are very similar to what we obtained using the rule of law indicator as our dependent variable. Thus, we do not discuss these regressions here, except to note that leadership and ideological turnover are positively associated with the control of corruption and statistically significant (at less than the 5% level) in all six formulations.

Our final robustness check involves replacing the World Governance Indicators by International Country Risk Guide (ICRG) data on the control of corruption. ICRG indicators, produced by a private political risk assessment agency, "measure . . . corruption within the political system that is a threat to foreign investment."[19] This focus on foreign investors is, for our hypothesis, too narrow for two reasons. First, it disregards the situation faced by domestic investors, on which we focus in the paper. Second, ICRG is concerned only with corruption in the investment process, while we are interested in business dealings in general. For instance, one of the main vehicles for corruption is public tenders where firms are chosen to supply goods and services for which the government – and not the firm – is the investor. The ICRG coverage also differs from that of WGI. ICRG data begin in 1989 and are produced annually throughout the period, but on the other hand cover fewer countries (around 20 transition economies, depending on the year).[20]

The ICRG scores range from 1 to 6 (6 being the "best") with the scores in our sample of countries ranging from 1 to 5. The measure shows a steady deterioration throughout the period despite obviously an increasing level of foreign investments in these countries, and their greater integration into the world economy. Thus, for example, control of corruption in the USSR before the transition registers a high value of 4 while after 1993, control of corruption in Russia varies between 1 and 3 (with an overall downward trend). The situation is very similar for other countries. The average score declined from 3.8 in 1989 and 4.0 in 1990 to 2.12 in 2006. No country (except Romania) has in 2006 a higher ICRG score than before the transition in 1989. In the pooled OLS regressions (see Table B.3 in Appendix B), neither type of turnover is statistically significant, and it is only the pretransition income level (positive) and the duration of communist rule (negative) that are significant predictors of ICRG control of corruption scores.

More interesting is to look at our second type of regression and to relate the control of corruption in 2006 to the frequency of leadership turnover in the early years of transition. Here, we observe a positive and significant (at less than 10%) coefficient on both

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[18]"Control of corruption" is the only other indicator, among six WGI measures, that captures the phenomena with which we are concerned here.

[19]The description provided by Public Risk Services (PRS) Group, see http://www.prsgroup.com/. The ICRG data are proprietary and their access is not free. We have used the data purchased by the World Bank.

[20]Over the period of study, the correlation between ICRG control of corruption and WGI control of corruption (rule of law) is 0.63 (0.58).

leadership and ideological turnover (see Table B.3 in Appendix B). One additional leadership or ideological turnover in the period up to (and including) 1995 is associated with, respectively, 0.24 and 0.34 points improvement in the ICRG score in 2006. This is a large fraction of the standard deviation of 0.55 of the ICRG score across our sample of countries. GDP per capita remains a significant predictor in both regressions and duration of communist rule in only one (with ideological turnover). The IV coefficients on turnover (using the same instruments as before) are, as before, larger than the OLS coefficients: between 0.7 and 1.2 ICRG points and statistically significant.

## 6. CONCLUSION

If investing in influence to obtain privileged treatment from the state is regarded like any other economic activity, then businesses will engage in it more when the returns are higher. There are many examples, in many countries, where it is common knowledge that paying off influential politicians to buy property rights à la carte, and paying off judges to obtain favorable rulings, are more lucrative than seeking profits through strictly economic – not political – investments. The weak link in the chain from those who buy influence to those who dispense favors is that the latter cannot always ''deliver'': they may have lost political power. And when this happens frequently enough, the returns to investing in influence decline and eventually fewer people engage in it. Democracy and political turnover thus play a key role in creating a situation in which the implicit contract cannot be executed, even if there is good will on both sides – politicians and investors in influence. We have explored this hypothesis for the postcommunist countries during the early period of political liberalization, when political turnover was not routinized. Under our hypothesis, the fact that turnover did, or did not, occur sent a powerful signal, both to those who might invest in influence and to politicians, and shaped their incentives.

We find that more frequent leadership and ideological turnover is a statistically significant predictor of the quality of governance across postcommunist countries. This result holds when we control for many other plausible influences on governance – income, war, democracy, dependence on fuel exports, and duration of communist rule (which is also a proxy for EU eligibility) – as well as when we instrument for both types of turnover. As between the two types of turnover that we defined, we find that in our sample leadership turnover is a stronger predictor of the quality of governance than ideological turnover. A plausible interpretation is that personal connections established between politicians and businesses during postcommunist transition transcended or were stronger than ideological affinities.

A further question concerns the generality of our results across regions and periods. The case of the postcommunist countries of Eastern Europe and the former Soviet Union is special in at least two important respects. First, the transition entailed a liberalization in political and economic spheres simultaneously, and thus offered an unusually high level of opportunities for poorly regulated transactions. Second, before the liberalizations, the set of private economic interest groups was very small. In many postcommunist countries, there was a wholesale movement of the former *nomenklatura* into business.[21] These new entrepreneurs were well placed to establish a ''special'' relationship with the government as long as their former colleagues remained in power. Thus, it might be that government turnover, and in particular, the *first* turnover, is more important in the postcommunist countries than it would be in other countries following an initial

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[21]A remarkable case study is Varese (2001, Appendix B).

democratization. We show that the frequency of turnover before 1996 is positively associated with the 2006 scores for three measures of governance – the measures of rule of law and control of corruption from the WGI database and the measure of control of corruption from ICRG.

Our results are consistent with the view that in a setting in which the turnover in power has not been routinized, there is a tradeoff between the ability of a strong unified government and friendly legislature to push through painful economic reforms, and the corrosion of reforms that results when persistence in power of the reforming party widens corruption and lowers the quality of governance. The long-term effects on the governance of persistence in power of a single group may turn out to be more important than the short-term effects on reform. One could argue that the best outcome for a newly democratizing country is that the government that has jump-started the reforms is thrown out of office, so long as its reforms survive. Political turnover may sever the clientelistic links that have been created between the reformers and influential business circles. Then, the reform process continues on a more level playing field.

### APPENDIX A: MODEL OF INVESTMENT IN INFLUENCE

We present a two-period model to formalize the intuition, discussed in Section 2, that expected turnover in power constrains investment in influence in a setting in which civil society and formal institutions are too weak to offer important countervailing pressures on corruption. The model incorporates two general features of investing in influence. First, the payoff is obtained in a lengthy (more than one-period) process. Our focus is on "grand corruption," situations in which firms purchase rules of the game that privilege their own interests: protection from competitors, judicial decisions, tax policies, the right to make privatization bids, "sweet deal" public work contracts, and so on. Such privileged protection or access normally entails government actions that occur *over time*. Protection is required over some period; public works generally go on for several years. Thus, these are not usually one-off deals that are under the discretion of a low-level member of the government. In our model, investors in influence seek to obtain a durable good from influential politicians.[22]

The second feature is that corruption contracts are enforced only as long as the political patron remains in power. If there is a change in the seat of power, the investor loses his privileges and incurs an additional loss, which might take the form of a loss on sunk investments or a punishment imposed by a successor government. Russia's experience illustrates the vulnerability to political risk of business empires based on politically protected property rights. Braguinsky (2009, Figure 1) finds that, among the 300 oligarchs judged by experts to be most influential in Russia in 1995, the peak period of separation of owners from the assets that they controlled occurred in the three-year period (1998–2001) that included the transfer of power from Yeltsin to Putin. Forty-three percent of the oligarchs expropriated when Putin was in power faced punitive actions in the period 2000–2005, including criminal investigations, jail, and forced emigration.

If there is no change in the seat of power, then we assume that the contract is fulfilled. We do not model how the contract is enforced. It could be enforced by the threat of

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[22]Thus, we assume that politicians also have a two-period time horizon. This assumption might not hold in highly politically unstable countries. For instance, Bates (2004) writes that in Angola and Liberia, the time horizon of politicians was so short that they did not generally sell property rights protection. But in the transition countries, the sale of property rights as private goods is well documented (see for example Hellman et al., 2003).

sanctions from a sufficiently powerful informal network or coalition of firms, or it could be self-enforcing in a scenario of repeated interactions.[23]

### A.1 Setup of the Model and Results

Consider an economy with a large number of firms that differ in their ability to invest in influence with the governing political party. Let $\theta$ denote a firm's ability to invest in influence, where $\theta$ is distributed according to the continuous, differentiable cumulative distribution function $H(.)$, with $H(.) > 0$ for $\theta > 0$. In the real world, many factors would give rise to differences across firms in the ability to earn "influence rents": political or personal closeness to powerful officials, wealth, talent, the size of the enterprise (larger firms have more bargaining power and control more resources), and membership in a network or coalition of clients that can enforce bargains with the rulers.

Each firm has an opportunity to make one bargain (a "corruption contract") with the political party in power. In the bargain, the governing party uses its de facto authority to create and distribute rents, e.g. by enforcing property rights selectively as a private good, by selectively denying to others their property rights (legalizing theft), and by creating entitlements for specific firms. The firm must decide whether or not to act on this opportunity by investing in influence. If the firm does not invest in influence, the firm receives a return that we normalize to zero. If, alternatively, the firm invests in influence, then the return on the investment is linked to the party's fortunes. If the party remains in power in the second period, the firm receives a net return $R > 0$ in this period and the next. But if the party does not remain in power, the firm will receive the return $R$ only in the first period. In the second period, it will suffer a loss $\ell$. $R$ is the return that shares the rents from the "corruption contract" between the party in power and the firm according to the Nash or some other bargaining solution. $R$ depends on the firm's type (firms with a higher value of $\theta$ earn a higher net return to investing in influence) and also on the institutional constraints on rent-seeking from the state, denoted as $\rho$.

Thus, the expected payoff to investing in influence is

$$v(\theta, \pi; \rho) = R(\theta, \rho) + \delta[[1 - \pi]R(\theta, \rho) - \pi\ell],$$

where $R_\theta > 0$, $R_\rho < 0$, and $\delta$ denotes the time discount factor. The first term on the right-hand side is the first period's return, which is riskless. The second term is the discounted second period expected return, which depends on the probability $\pi$ of a change at the end of the first period in the party that holds effective power in the government.[24]

In Figure A.1, we illustrate the firm's payoff to investing in influence as a function of its type, $\theta$. For given values of $\pi$ and $\rho$, there is a critical value $\hat\theta$ such that a firm invests in

[23]Haber et al. (2003) argue that, in Mexico, networks of manufacturing firms control labor unions that play the role of third-party enforcers of promises. If the ruling party violates a promise with a member of the network, the network can call a general strike and create political instability. Freeland (2000, ch. 12) reports that, in 1997, one of the individuals who had helped ensure President Yeltsin's reelection in exchange for the "loans-for-shares" arrangement believed that the government had not given him a fair share of state assets. By exposing corruption, he threatened to block – and did block – actions that Yeltsin wished to take. The revelations were a factor in delegitimizing Yeltsin's administration. An additional class of enforcement devices, which is important in practice but cannot be captured in a two-period model, is reputational concerns: rulers that expect to stay in power or to return to power have an interest in being able to enter into clientelistic arrangements in the future.

[24]Preferential treatment obtained by some firms may impose a cost on other firms through unfair competition, theft, and poorer public goods provision, as Slinko et al. (2004) show has occurred in Russia; see also Hellman et al. (2003, pp. 769–770). As a result, the relative return to each firm to investing influence (relative to not doing so) may be an increasing function of the number of others who invest in influence. Our model abstracts from this possible effect, but taking it into account would strengthen our results because of a social multiplier effect.
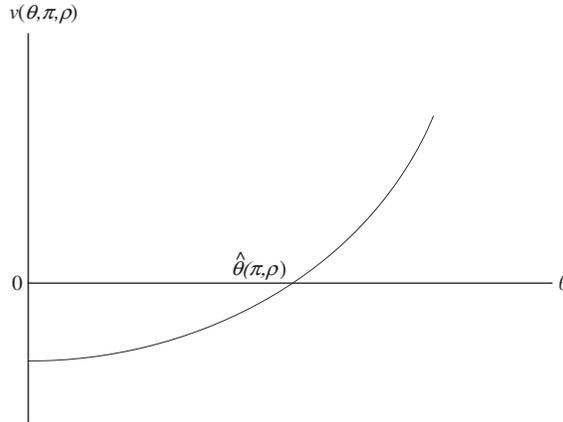
Figure A.1.   Firms differ in the ability to invest in influence, and the expected payoff is positive for types $\theta > \hat{\theta}$.

influence if and only if $\theta \geq \hat{\theta}$. The value of $\theta$ at which expected payoffs are zero satisfies $v(\hat{\theta}, \pi, \rho) \equiv 0$.

The fraction $x$ of firms that invest in influence is thus $x = 1 - H(\hat{\theta}(\pi, \rho))$. An increase in $\pi$, by lowering the expected return to investing in influence, would shift the curve right and increase the switch point:

$$\frac{\partial \hat{\theta}}{\partial \pi} = -\frac{v_\pi}{v_\theta} = \frac{\delta[R(\hat{\theta}, \rho) + \ell]}{[1 + \delta - \delta\pi]R_\theta(\hat{\theta}, \rho)} > 0.$$

The resulting reduction in the proportion of firms that invest in influence is

$$\frac{\partial x}{\partial \pi} = -H'(\hat{\theta})\frac{\partial \hat{\theta}}{\partial \pi} < 0,$$

which is proportional to the density of firms at the switch point (the first factor on the right-hand side) and their sensitivity to a change in beliefs about the likelihood of turnover (the second factor).

Our model of investing in influence is a short-run model in which weak institutions shape the terrain in which firms adapt as a function of the expected probability of turnover in the seat of power. In the long run, firms' choices whether or not to seek protection from the state in specific deals as a *private* good rather than in general rules as a *public* good will shape the institutions.

### APPENDIX B: DATA SOURCES

The following data sources provided the variables used in the paper:

*Governance.* The World Governance Indicators (rule of law and control of corruption) are available at http://www.worldbank.org/wbi/governance/pubs/govmatters4.html

The website and Kaufmann et al. (2003) explain the methodology. The data are available at two-year intervals for the period 1996–2002, and annually for 2002–2006.

*Democracy.* Democracy is proxied by the variable *Polity2* from the Polity IV database available at http://www.cidcm.umd.edu/inscr/polity/ (updated in May 2008).

*Income per capita*. We use GDP per capita from the World Development Indicators database (accessed in May 2008); values expressed in 2006 purchasing power parity (PPP) dollars.

*Leadership and ideological turnover*. These data are constructed by the authors, based on Horowitz and Browne (2005), as explained in Section 2 and Horowitz et al. (2009).

*Cumulative involvement in war*. Our measure is the proportion of the time the country was involved in a large-scale military conflict since 1989 or, for the former Soviet Republics, since their independence in the Fall 1991. The data are created by the authors.

*Share of fuel exports*. Our measure is the share in GDP of exports of oil, natural gas, and gold in the first year that World Bank data are available (1996 or 1997). The source is the World Bank Development Data Platform database.

*Literacy in the 1930s*. Percentage of adult population that is literate. Data are from Darden and Grzymala-Busse (2006, p.113), Plestina (1992, p.181), and Rothschild (1974, pp. 37, 44, 92, 166–167, 285, 327, 332, 359, 369).

*Urbanization rates in 1989–1990*. Percentage of population living in urban areas. Data are from the World Bank (1996, p.175).

TABLE B.1   CUMULATIVE LEADERSHIP TURNOVER BETWEEN THE
COLLAPSE OF COMMUNISM UP TO AND INCLUDING 2006

| Cumulative leadership turnover | Country (abbreviation) |
| --- | --- |
| None | Uzbekistan (UZB) |
| | Turkmenistan (TKM) |
| | Kazakhstan (KAZ) |
| 1 | Belarus (BLR) |
| | Tajikistan (TJK) |
| 2 | Russia (RUS) |
| | Serbia (SRB) |
| | Kyrghyzstan (KGZ) |
| | Armenia (ARM) |
| 3 | Albania (ALB) |
| | Slovenia (SVN) |
| | Ukraine (UKR) |
| | Azerbaijan (AZE) |
| | Georgia (GEO) |
| | Bosnia (BIH) |
| | Latvia (LVA) |
| | Croatia (HRV) |
| | Macedonia (MKD) |
| 4 | Bulgaria (BGR) |
| | Poland (POL) |
| | Romania (ROM) |
| | Estonia (EST) |
| | Czech Republic (CZE) |
| | Hungary (HUN) |
| | Moldova (MDA) |
| 5 | Slovakia (SVK) |
| | Lithuania (LTU) |

TABLE B.2 FIRST-STAGE REGRESSION RESULTS USING AS INSTRUMENTS PRECOMMUNIST LITERACY RATE AND 1989–1990 URBANIZATION RATE

| | Coefficient ($p$ levels) | |
|---|---|---|
| Dependent variable | Leadership turnover | Ideological turnover |
| GDP per capita in 1990[a] | − 2.188*** | − 1.999*** |
| | (0) | (0.002) |
| War (cumulative) | − 0.123** | − 0.174** |
| | (0.012) | (0.012) |
| Fuel/GDP in 1996–1997 | 33.18*** | 18.37*** |
| | (0) | (0) |
| Democracy (*Polity2*) | 0.182*** | 0.106*** |
| | (0) | (0) |
| Duration of communist rule | − 0.032** | − 0.045*** |
| | (0.025) | (0.001) |
| Literacy rate | 0.043*** | 0.021*** |
| | (0) | (0.002) |
| Urbanization rate | − 0.016 | − 0.008 |
| | (0.302) | (0.522) |
| Constant | 20.23*** | 13.09*** |
| | (0) | (0) |
| *F*-test of excluded instruments | 12.37*** | 3.20* |
| | (0) | (0.06) |
| Anderson canonical correlation test | 66.75*** | 14.01*** |
| | (0) | (0) |
| Cragg–Donald test of weak identification[b] | 38.5 | 7.0 |
| $R^2$ | 0.75 | 0.60 |
| *N* | 183 | 183 |

Notes:
***Significant at 1%.
**Significant at 5%.
*Significant at 10%.
The results are the first-stage estimates for the regressions reported in Table 6, columns (3) and (6), respectively.
$p$ values shown in parentheses. ''0'' indicates $p = 0.000$.
Standard errors are clustered by country.
[a]In natural logs.
[b]Stock–Yago suggested critical value for the test (2SLS bias is less than 10% of OLS bias) is 19.9.

TABLE B.3   OLS AND IV ESTIMATES OF THE RELATIONSHIP BETWEEN THE ICRG MEASURE OF CONTROL OF CORRUPTION AND LEADERSHIP AND IDEOLOGICAL TURNOVER

| Dependent variable | ICRG measure of control of corruption | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| | Pooled OLS | Cross-section 2006 | 2SLS | Pooled OLS | Cross-section 2006 | 2SLS |
| Method of estimation | (1) | (2) | (3) | (4) | (5) | (6) |
| Leadership turnover | −0.074 | | 0.707*** | | | |
| | (0.593) | | (0) | | | |
| Leadership turnover 89–95 | | 0.240* | | | | |
| | | (0.087) | | | | |
| Ideological turnover | | | | 0.012 | | 1.194** |
| | | | | (0.888) | | (0.011) |
| Ideological turnover 89–95 | | | | | 0.340* | |
| | | | | | (0.064) | |
| GDP per capita in 1990[a] | 0.560** | 0.963*** | 1.148** | 0.611** | 1.050*** | 1.247*** |
| | (0.027) | (0) | (0) | (0.015) | (0) | (0) |
| War (cumulative) | −0.134 | 0.050 | −0.101 | −0.132 | 0.047 | −0.040 |
| | (0.114) | (0.289) | (0.115) | (0.105) | (0.267) | (0.743) |
| Fuel exports/GDP in 1996–1997 | 0.575 | −7.231 | −16.28*** | −0.818 | −11.07** | −20.61** |
| | (0.901) | (0.152) | (0.006) | (0.843) | (0.033) | (0.024) |
| Duration of communist rule | −0.038** | 0.005 | −0.010 | −0.034** | 0.006 | 0.035 |
| | (0.011) | (0.631) | (0.575) | (0.012) | (0.520) | (0.251) |
| Democracy (*Polity2*) | −0.007 | −0.026 | −0.149*** | −0.019 | −0.060 | −0.179** |
| | (0.855) | (0.531) | (0.001) | (0.535) | (0.172) | (0.02) |
| Constant | −0.281 | −6.845*** | −8.755** | −1.000 | −7.380*** | −10.937** |
| | (0.902) | (0.002) | (0.034) | (0.645) | (0.001) | (0.018) |
| $R^2$ adjusted | 0.348 | 0.782 | | 0.344 | 0.804 | |
| F | (5.2) | (22.8) | | (5.8) | (17.3) | |
| Number of observations | 188 | 18 | 188 | 188 | 18 | 188 |
| F-test of excluded instruments | – | – | 9.05 | – | – | 3.77 |
| Anderson canonical correlation test | – | – | 56.23*** | – | – | 18.78*** |
| | | | (0) | | | (0) |
| Hansen J statistic | – | – | 0.264 | – | – | 0.08 |
| | | | (0.61) | | | (0.78) |

Notes:
***Significant at 1%.
**Significant at 5%.
*Significant at 10%.
p values shown in parentheses. "0" indicates $p = 0.000$. Standard errors are clustered by country.
[a]In natural logs.

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## Supporting Information

Additional Supporting Information may be found in the online version of this article:

**Appendix S1:** Coding of Leadership and Ideological Turnover of Post-Communist Governments

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