

Government turnover: Concepts, measures and applications

SHALE HOROWITZ,¹ KARLA HOFF² & BRANKO MILANOVIC²

¹Department of Political Science, University of Wisconsin-Milwaukee, USA; ²Development Research Group, World Bank, Washington, DC, USA

Abstract. While government turnover is often thought of as an adverse source of instability, it may also be viewed as a favourable source of competition and institution-building. To articulate and test such hypotheses, this article describes two main concepts of government turnover: *leadership turnover*, or change in rulers, and *ideological turnover*, or change in the rulers' ideology. Refinements involve the mode, outcome and timing of turnover. The article discusses measurement issues that arise when there are multiple power institutions and when parliaments are controlled by changing majority coalitions. The measures of turnover are illustrated by examining the post-communist world. The article considers the possibility that higher cumulative post-transition turnover – in terms of leaderships or ideologies – has assisted in establishing the rule of law.

Turnover of governments is a basic source of variation in institutions and policies. Like mass accountability through elections, frequent change of governments is a distinguishing feature of democracy. Unlike mass electoral accountability, however, the frequency of government turnover is a variable characteristic of democracy. The frequency and character of turnover depend on voter preferences, political institutions, and salient events and issues. In autocracies, turnover may be less common, but also varies in quantity and quality. Turning to effects, turnover is often considered to be an important influence on economic policies and performance. Yet turnover's impact is understood in different, sometimes contradictory ways – as a disruptive source of uncertainty and instability, or as promoting accountability and error correction through political competition. After reviewing some hypothetical economic impacts, this article advances a family of concepts and measures of government turnover. These can be used to articulate and test theories and hypotheses about turnover's consequences.

Some hypothetical economic impacts of government turnover

Predictability of economic relations is widely considered to be fundamental to the workings of market economies. Personal, property and contract rights

provide agents with the opportunity, security and confidence to make long-term investments in human and physical capital, and to allocate these and other resources so as to best achieve their objectives. Similarly, stable prices are necessary to provide reliable information so that optimising allocative decisions made at one time remain relatively reliable in the future. At the same time, competition among economic agents is vital to achieving and maintaining allocative efficiency and stimulating innovation. The ideal model of a market economy thus incorporates a duality: secure personal, property and contract rights and a stable price level provide a framework of incentives and information, within which competition drives agents toward collectively optimal resource allocation, more rapid innovation and greater investment (North 1990; Teichova & Mathis 2003).

Against this background, what impacts might government turnover have on economic institutions and policies? On the one hand, if a government is not significantly undermining rights and is maintaining a stable price level, there is a risk associated with a new government coming to power. On the other hand, if a government expects to remain in power indefinitely, there will be enhanced opportunities to make and enforce laws and to manipulate prices in order to benefit government actors and their allied client networks at the expense of others. Long-lived governments will have scope and incentives to implement a broader range of corrupt policies than short-lived governments. One might therefore argue that there is a trade-off: some optimal range of government turnover across a given time period, short of which governments have an incentive to implement a broader range of corrupt policies, and beyond which government policies become damagingly unpredictable. It might, however, be useful to distinguish types of turnover. Turnover might have a purely favourable impact – though possibly a diminishing one – as long as it is somehow constrained not to threaten basic market institutions. Political competition that results in greater turnover among political parties that vary across a narrow, non-threatening range of policy issues might yield benefits to citizens just as market competition yields benefits to consumers.¹

This discussion also raises the question of *transition* to well-functioning market institutions. What if basic market institutions have never been consolidated, or have been undermined or destroyed? How are they most likely to be created or reinstated? One idea puts faith in a wise ‘strongman’ or dictator, who sweeps away the failed system of the past and imposes basic market institutions. If done successfully and for a long enough time, the new system becomes institutionalised, acquires a powerful supporting constituency and thereby survives the passing of the dictator. This is one interpretation of the successes of postwar Germany and Japan and of the so-called

'East Asian Model' of economic development (Olson 1982; Haggard 1990). Of course, the weak link in this causal chain is the benevolence of the dictator. What guarantee is there that the dictator will play the appointed role? More often, long-ruling dictators prefer to maintain or even deepen corrupt policies to serve the client networks that help keep them in power.

Another possibility is that political competition – in particular, regular turnover of governments – may generate a political consensus in favour of market institutions. Turnover is more likely to have these benefits under certain boundary conditions. Under democracy, unpredictability is ordinarily constrained by the need to appeal to the mass of centrist voters, who typically do not benefit from formal or informal policies benefiting concentrated interest group allies of the various parties. However, in some cases, more neutral governance may be discredited, and the mass electorate may become more supportive of extreme, interventionist positions. Thus, frequent turnover among moderate democratic governments would seem to favour development of market institutions, whereas frequent turnover involving large changes in ideology would not (Landes & Posner 1975; Sartori 1976, 1994).

For authoritarian turnover of governments, economic costs of discontinuity would seem contingent upon the policies that would be pursued if a given authoritarian government is able to remain in power. Since authoritarian regime types are likely to vary more in quality, frequent turnover may be more likely to disrupt than to nurture development of market institutions. A given authoritarian regime, if entrenched in power, may be even more disruptive, but in an authoritarian environment, it may be that more refined and stable market institutions are most likely to develop under a long-ruling, properly disposed dictator.

In what follows, we develop concepts and measures of government turnover designed to capture this range of possible effects. These concepts and measures can be further adapted to address hypothesised effects of turnover on different institutional and policy outcomes. We illustrate the concepts and measures by examining the set of post-communist countries since the regime changes of 1989–1991. We then briefly discuss how the measures of post-communist turnover might be applied to explain differences in the *development* of the rule of law. This discussion highlights the causal and associated statistical complexities likely to arise when turnover is used as an explanatory (or independent) variable. It also shows that concepts and measures of turnover must generally be adapted to address a given research question. We conclude by reviewing the theoretical utility of the turnover concepts and the challenges of measurement and statistical testing, and by summarising some additional areas of application.

Concepts of turnover

The simplest concept of government turnover looks at change in the ruling leader or leaders. Examples are an individual dictator; a ruling clique drawn from a dominant party, military, economic or clerical elite; or the leadership of an elected party or coalition of elected parties. If one dictator supplants another, or a group of colonels supplants a monarch and so on, then leadership turnover has occurred.² For many explanatory purposes, however, not all such turnovers would be expected to have an equal impact. One basic refinement would be to classify the governments by relevant ideological and policy differences. This makes it possible to disregard or discount turnovers that do not change the substantively relevant ideological and policy differences. If leadership turnover merely rearranges the thrones of heaven, or the deckchairs on the Titanic, as the case may be, then it would not be expected to have a significant impact. Ordinarily, then, the number of relevant ideological turnovers is less than or equal to the number of leadership turnovers.³ A further issue is whether all ideological turnovers are expected to have an equal effect. It is possible that the magnitude and direction of ideological change also need to be considered.

There may be theoretical reasons to distinguish types of turnover. For example, democratic turnovers may be expected to have different impacts. Similarly, it may be that violent transitions, whether they lead to authoritarian or democratic successor governments, are expected to have different impacts than peaceful ones. Institutional fragmentation may also matter. Turnover to a more highly centralised government might be expected to yield greater policy change than turnover to a government that is more internally fragmented within and across institutions. Such distinctions suggest further refinements to the measure of turnover. For example, depending upon research interests, one might want to count all peaceful, democratic leadership turnovers over a given period, or all peaceful, democratic ideological turnovers.

Other refinements concern the time-span over which change of governments is examined. If turnovers are expected to have cumulative impacts, this must be measured over some time span. The simplest approach is to count turnovers across the time span for which data is available. It may be, however, that turnovers are expected to have a greater impact if they are more recent, or if they occur within some limited period of time following a crucial transition point. Such hypothesised effects can be captured by truncating the time period across which turnovers are counted; by eliminating those that occur before or after a certain cut-off point. Less discontinuous weightings of turnovers can also be used.

Measures of turnover

In this section, we discuss several coding issues that arise in measuring turnover: accounting for multiple power institutions; defining thresholds at which leadership and ideological alternation have occurred; defining and measuring ideological distance; taking into account institutional fragmentation of successive governments; and counting and weighting given types of alternation over some time period. There may be a number of political institutions that must approve legislation before it becomes law. For most authoritarian regimes, some or all such formal legislative institutions may lack real power, which resides in a single dictator or a single clique (formal or informal) of top leaders. In such cases, it would be misleading to examine the characteristics of the formal, but powerless institutions; turnover should be examined only for those wielding real power. In contrast, many democracies have two legislative branches that must agree on laws. Democracies may also have strong presidencies that have veto or decree power.

Two measurement issues arise here. First, how is turnover to be measured in legislative institutions with many representatives? To begin with, consider leadership turnover. One reasonable criterion would be a change in the institutional parties that constitute a majority coalition. If it is simply a case of new leaders being chosen from the same majority party or majority coalition parties, then much the same institutional party leaderships are going to retain control or blocking power.⁴ On the other hand, there may be cases where there is a total or near-total change in the composition of a party leadership. Although rare, such cases do involve total or near-total leadership turnovers. What if there is partial overlap between the old and the new majority coalitions because some but not all parties remain from the old majority coalition? One rule would be to count turnover as occurring if these remaining or overlapping parties are in the minority within the coalition. A stricter rule would count an alternation only if the remaining parties are not necessary to form the new majority coalition. Various intermediate thresholds, in which the number of legislators remaining from the old government may not account for more than a certain share of the seats held by the new coalition government, are also possible. Still another approach might examine the cabinet or legislative responsibilities of the overlapping parties relative to the given institutional or policy outcomes that alternation is taken to influence. In such cases, remaining or 'leftover' party representatives who are a minority within the new coalition might retain control or veto power over relevant legislative and policy domains. In that event, it would not make sense to count turnover as having occurred. However, even if minority leftover representatives do not control the relevant ministries, they may still

have a significant influence if they hold enough seats to bring down the government.

A second issue is how to measure leadership turnover with multiple legislative institutions, including executives with veto or decree powers. The strictest criterion would be to count turnover only once it occurs in all the legislative institutions. This does not exclude turnovers completed over time. Relative to the initial conditions, for example, one legislative branch might experience turnover in one election, and the remaining legislative institutions in the following election. As long as the first branch experiencing turnover does not change its composition in the second election, a complete turnover would be registered at the time of the second election. It is possible to code turnovers in some but not all of the legislative institutions as fractional alternations. To adopt this procedure, however, partial turnover, in which the old leadership retains veto power over legislation, would have to be interpreted as likely to have a substantive impact on the outcomes of interest. Moreover, if such fractional turnover were to revert to the initial leadership profile in the next election, it may not make sense to code another partial turnover. For many purposes, a complete leadership turnover would be required to make likely a substantial impact on the legislative *status quo*.

For each of these rules for coding turnover, or for other, similar rules, it is possible to add the requirement that the new majority party or majority coalition (possibly across two or more legislative institutions) must be new, not just in an institutional sense of involving a critical mass of different parties, but also in a substantive ideological sense. Such ideological change would then be necessary for a given *leadership turnover* to constitute an *ideological turnover*. Determining such ideological change requires some way of measuring ideological difference. The most common types of ideological measures array parties within an ideological space, usually on the basis of party platforms, expert opinions or public opinion surveys. The researcher must then choose a threshold distance of change for counting ideological turnovers as occurring. Depending upon the dependent variable being examined, the size of the change necessary to make a substantive difference might be judged smaller or larger. Thus, for some economic policy outcomes, it may be that the distance between centre-left and centre-right coalitions is viewed as sufficiently large to predict policy change; whereas for other policy outcomes, larger, more fundamental ideological changes are likely to be necessary.

A related issue is whether all ideological changes that cross the chosen threshold are to be treated equally. There may be reason to weight larger ideological changes as involving 'greater' turnover. Or there may be reason to view some kinds of ideological alternation as more significant or substantive than others, or as having qualitatively different impacts. Again, such decisions

would have to be justified by the expected impacts of the different types of ideological turnovers on the outcome of interest. Suppose that leadership or ideological turnovers are counted only when there is a turnover of power across all lawmaking institutions. In this case, institutional fragmentation of each successive government can be measured and used as a weight for each successive turnover. The weights would have to take into account institutional fragmentation across lawmaking institutions as well as within them. There are different ways of doing this. A simple approach would be to count distinct institutional veto players within each successive government. Veto players would be strong executives, along with any legislative parties that are necessary to form majority coalitions within one or more legislative branches. For legislative veto players, it would also be possible to incorporate weights based on seat shares.⁵

A final question concerns the time span over which turnover is to be measured, and whether to weight any turnovers that occur. In general, the time span should be consistent with the hypothesised impact of turnover on the outcomes of interest. In a cross-sectional research design, the simplest approach is to measure cumulative turnover – to count up the total number of turnovers – over some time span leading up to the point at which the outcome is measured. It may make theoretical sense to weight such turnovers. Thus, those that occur earlier or later in the time span might be expected to have a lesser impact. If variation over time is added to cross-sectional variation, then similar decisions have to be made for each time period. Each time period could be coded on its own, or relevant information from previous time periods could be blended with the information from the current period.

Illustrations from the post-communist world

We illustrate this family of measures by examining turnover in 28 post-communist countries, from the system changes of 1989–1991 through 2005. Although all countries saw some transformation of the old regime, many new regimes remained authoritarian, and many of these authoritarian regimes substantially conserved the leadership or ideology of the old regime. We begin by discussing leadership and ideological alternation. As discussed below, the particular coding decisions made in these illustrations are more or less appropriate, depending on the research question chosen.

In counting leadership turnovers in democratic legislatures, we exclude cases where important members of the new coalition remain from the old one. We construct measures using two different thresholds: that members of the old coalition government may not exceed one-fourth or one-third of the new

coalition government.⁶ The idea is that more than a bare majority of the coalition must be new to count as a leadership turnover. On the other hand, we do not wish to posit that a turnover requires a totally new coalition, since that would exclude the high number of cases where minor parties remain from old coalition governments.

Where there is more than one legislative institution, we count only full turnovers, requiring that turnover occur across all veto-wielding legislative institutions – including strong presidencies (with decree or veto power⁷) – before it is registered. Turnovers are not counted as occurring if the local communist party leadership retains authoritarian power after the transition, and merely rebrands itself as a non-communist party with a somewhat more moderate ideology, as occurred in a number of former Soviet and Yugoslav Republics.

Since turnover is registered relative to a previous government, it may be that a given political outcome is a turnover relative to one past government but not another. We resolve this issue by counting the largest number of turnovers that have occurred since the transition from communism. Consider the following example from Serbia. Slobodan Milošević's Serbian Socialist Party government was succeeded by a broad (centre-left and centre-right) reformist coalition, which then gave way to a centre-left coalition government, followed by a centre-right coalition government. If the first leadership turnover is counted as occurring in the change to the broad reformist coalition, then the subsequent centre-left and centre-right governments were not sufficiently different for either to count as a leadership change. However, it is also possible to count the centre-left coalition government as a leadership change relative to the Milošević-led government, and then to count a second leadership with the move to a centre-right coalition government. In such cases, we count the larger number of turnovers as occurring.

To measure ideological distance, we use a simple, two-dimensional ideological space, with four discrete intervals along each dimension. Along the economic policy dimension, parties or governments can be far left, centre-left, centre-right or far right, depending on level of support for transition to a market economy and for social welfare services. Along the national identity dimension, parties or governments can be extreme nationalist, moderate nationalist, moderate autonomist or secessionist, depending on their positions on minority rights and on relations with ethnic kin in neighbouring countries.⁸ While there is great ideological variation among parties, almost all governments have fallen into three out of the 16 possible categories: far left and moderate nationalist, centre-left and moderate nationalist and centre-right and moderate nationalist. Where ideological turnover occurs, it is almost entirely to and from these categories.

Table 1 shows some measures of cumulative turnover for Hungary, Poland and Russia. Some related measures of government ideology and political system type are also listed. Since 1990, Hungary has had a weak presidency elected by a unicameral legislature, and so is classified as a parliamentary democracy. It is only changes in control of the legislature that are relevant for measuring turnover in Hungary. Through the end of 2005, parliamentary elections brought new ruling parties or party coalitions to power in March 1990 (centre-right), May 1994 (centre-left), May 1998 (centre-right) and April 2002 (centre-left). All of these leadership turnovers brought a change in the ideology of the ruling parties or coalitions, so the measures of leadership and ideological turnover are the same.

Poland has had a strong presidency since October 1992.⁹ Poland's upper house does not have binding lawmaking power, since a majority of the lower house can impose its own version of a law. So it is only changes in control of the lower house of the legislature and, from 1992, the presidency, which count. Through the end of 2005, lower house elections brought new ruling parties or party coalitions to power in the legislature in June 1989 (centre-right), October 1991 (centre-right), September 1993 (centre-left), September 1997 (centre-right), September 2001 (centre-left) and September 2005 (centre-right). With the exception of the October 1991 election, these lower house changes brought ideologically different parties or coalitions to power.¹⁰ New presidents were elected in December 1990 (centre-right), December 1995 (centre-left) and December 2005 (centre-right). Thus, leadership turnovers took place in 1989, 1991, 1995 and 2005. The third leadership turnover did not occur in 1993 because the new parliamentary coalition did not obtain an allied president until 1995. A fourth leadership change did not occur from 1997 through 2001 because the old president continued in power despite the new parliamentary coalition. In 2005, there was a fourth leadership change because centre-right elements took both the lower house and the presidency. Of these *leadership turnovers*, only the first, third and fourth were *ideological turnovers*.

Turning now to Russia, there is a strong presidency, so that changes must occur in both the presidency and the legislature to be counted as a turnover. The first leadership change 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 favour of Vladimir Putin. As prime minister, Putin had led his Unity Party to success in the December 1999 lower house elections. Thus, in December 1999, a full leadership change was completed as a new president and a supporting lower house coalition came

Table 1. Measures of government turnover (counted cumulatively), government ideology and political system in Hungary, Poland and Russia

Year	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<i>Hungary</i>																	
Leadership turnover	1			2		2				3				4			
Ideological turnover	1			2		2				3				4			
Government ideology	FL	CR	CR	CR	CR	CL	CL	CL	CL	CR	CR	CR	CR	CL	CL	CL	CL
Political system	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Poland</i>																	
Leadership turnover	1		2				3										4
Ideological turnover	1						2										3
Government ideology	FL	CR	CR	CR	CR	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CR
Political system	3	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2
<i>Russia</i>																	
Leadership turnover			1												2		
Ideological turnover			1														
Government ideology	FL	FL	FL	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR
Political system	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2

Notes: Government ideology: FL = far left; CL = centre-left; CR = centre-right. Political system: 1 = parliamentary democracy; 2 = presidential democracy; 3 = authoritarian regime. Democratic freedoms have declined significantly in Russia under Putin. Based on chosen thresholds in democracy measures such as *Polity*, Putin's Russia in recent years might be classified as 'authoritarian'. This would not change the leadership and ideological turnover measures.

to power.¹¹ Through 2005, this late 1999 leadership change was the only one since August 1991. Compared to Yeltsin and his supporting parliamentary coalition, Putin and his supporting coalition are not classified as having significantly different ideologies on the economic and national identity policy dimensions, so there is no ideological change in 1999.

Rule of law

As an example of an important outcome that might be influenced by turnover, consider the rule of law,¹² which prevails when laws are made and enforced so as to treat all individuals, firms, civil society organisations and other legal actors equally. The rule of law is corrupted to the extent actors are able to use political influence to have laws tailored to suit them, or to have laws applied and interpreted on an *ad hoc* basis to suit their interests. Much of this corruption, such as using political influence to obtain favourable judicial rulings or regulatory and police harassment of business competitors, is illegal. Yet much of it is legal. Examples are trade protection, subsidies, tax breaks or regulatory exemptions benefiting only certain industries or firms.

How would turnover of governments be expected to affect the rule of law? Just as the rule of law gives economic actors a predictable, level playing field over some significant time horizon, long-term special deals between economic actors and government, which we call ‘corruption contracts’, give such actors predictable advantages. The gains from such long-term corruption contracts would be expected to exceed those from a series of short-term or spot corruption contracts. Thus, long-term contracts will justify investments with greater sunk costs to exploit corruption opportunities more intensively.

Turnover of governments would be expected to disrupt such long-term corruption contracts, and thus to increase economic actors’ incentives to ask for general rules rather than special deals. Of course, not all corruption will be disrupted. Apart from spot or short-term corruption contracts, it may be that some actors can buy some level of influence at a similar cost from all or most governments. However, this is unlikely to be the case for many economic actors. Governments typically offer discriminatory gains or corruption contracts in a number of related policy areas such that it is practically or ideologically more difficult to provide it in others. For example, large fiscal transfers in one set of areas make it more difficult to make such transfers in other areas; regulatory advantages provided to some firms lose much of their value if they are supplied to all firms that might benefit from them. Ideological commitments used to appeal for mass support become less credible if special deals are made that contradict those values. In addition, new governments will

frequently view clients of previous governments as politically unreliable. Such tainted clients may be excluded from future corruption contracts, or even targeted for past corruption. More frequent government turnover in the past will lead actors to expect more frequent turnover in the future, which will make corruption contracts less valuable.

Is there some point at which additional government turnovers would not be expected to significantly reduce corruption? It would seem so. At some point, long-term corruption contracts will seem highly insecure, and further turnovers will have little additional impact. Might very frequent turnover at some point even increase corruption? Such turnover might sometimes make business conditions more uncertain, and may therefore reduce productive investment, increase unemployment and the like. However, as long as underlying market-based legal and security regimes remain in place, it is not clear that it will tend to increase corruption. Shifts to non-market-based legal and security regimes will tend to increase corruption. Repeated revolutionary shifts will tend to destroy personal and property rights and shorten longer time-horizons for both market activity and corruption. This may lead to massive spot corruption and looting. We would thus expect more frequent government turnovers to *increase* corruption when combined with fundamental deviations from market-based legal and security regimes and weak prospects of regaining lost power and influence. In contrast, when turnover takes place within market-based legal and security regimes, we would expect more frequent government turnover to *reduce* corruption, though possibly with diminishing effects, particularly through its effect on the value of long-term corruption contracts.

Would corruption-reducing effects of government turnover be expected to be similar in all political contexts? Such effects should be greater in transitional political systems. In long-established political systems, it is more likely that judicial, law enforcement and regulatory institutions will develop independently of currently serving governments. These independent institutions may be more or less subject to corrupting influence, but governments will often have a limited impact on how they function. In such cases, turnover of governments will affect a narrower range of corruption opportunities, and should therefore have less impact. In contrast, transitional political systems are more likely to be reshaping judicial, law enforcement and regulatory institutions, as well as engaging in more traditional legislative activity. More frequent turnover should therefore disrupt a wider range of corruption opportunities. Thus, frequent turnover may lead politicians and influence-seekers to seek general rules and neutral judicial, law enforcement and regulatory institutions, which will protect their interests when they and their allies are not in power. Through these channels, turnover would restrict both the supply and the demand for long-term corruption contracts.

The set of post-communist countries are a reasonable sample for testing this conjecture about how turnover affects development of the rule of law. After the collapse of Soviet- and Yugoslav-style political and economic systems, these countries made transitions from planned or socialised economies to market economies, and correspondingly, to the types of legislative, regulatory and judicial institutions prevailing in market economies. At the same time, there has been great variation in the extent to which institutions and policies conformed to theoretical ideals. We hypothesise that increased government turnover should reduce gains from investment in influence, and hence contribute to development of a more neutral rule of law.

What measure of turnover seems most appropriate for empirical testing? First, a cumulative measure should be used, as additional turnovers should further reduce expected gains from investing in influence. Second, one might expect ideological turnover to have a greater effect than mere leadership turnover. Leadership change without ideological change makes it more likely that similar patron-client relations, with similar long-term corruption contracts, can be retained. A recent history of ideological turnover, by contrast, is likely to produce greater disruption of long-term corruption contracts, and therefore to reduce expected gains from corruption.

The scatter plots in Figures 1 and 2 show a strong positive correlation between government turnover and rule of law in 2005.¹³ Figure 1 shows leadership turnover, and Figure 2 ideological turnover.¹⁴ As the plots indicate, leadership and ideological turnover are similar, but are far from being the same (correlation = 0.767 in 2005). Table 2 shows ordinary least squares regression results, with robust standard errors clustered by country. The sample consists of the 27 post-communist countries for which data are available, over the first and last time periods (1996 and 2004) for which rule of law and other data are available (N = 54).

The control variables are the natural logarithm of per capita income in 1990, years at war since the transition from communism, and dummy variables for centre-left and centre-right democratic governments.¹⁵ Higher per capita income at the time of transition from the old regime proxies for variation in a number of factors, such as urbanisation, human capital, and differentiated economic and civil society institutions, that may facilitate the development of rule of law policy preferences and institutions. War distracts from ordinary politics, thus making the rule of law a lower priority; it directly disrupts many ordinary economic activities, and it often leads to extraordinary government intervention in economic affairs. Transition to democracy, as opposed to authoritarian government, is often thought likeliest to make a clean break with the interventionist past and so to create and consolidate more neutral legal and regulatory institutions and policy making. Some have argued that, among

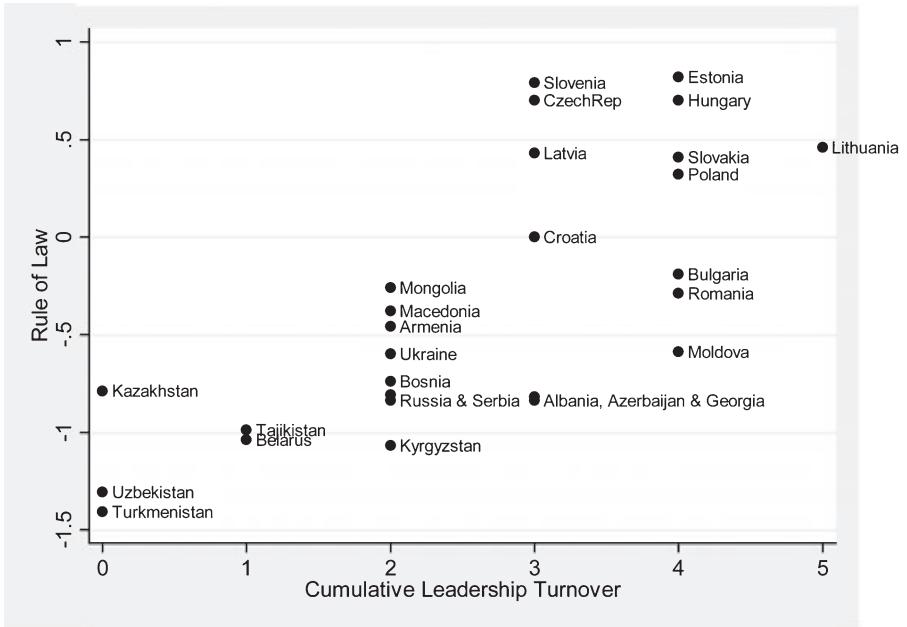


Figure 1. Scatter plot of cumulative leadership turnover and rule of law in 2005.

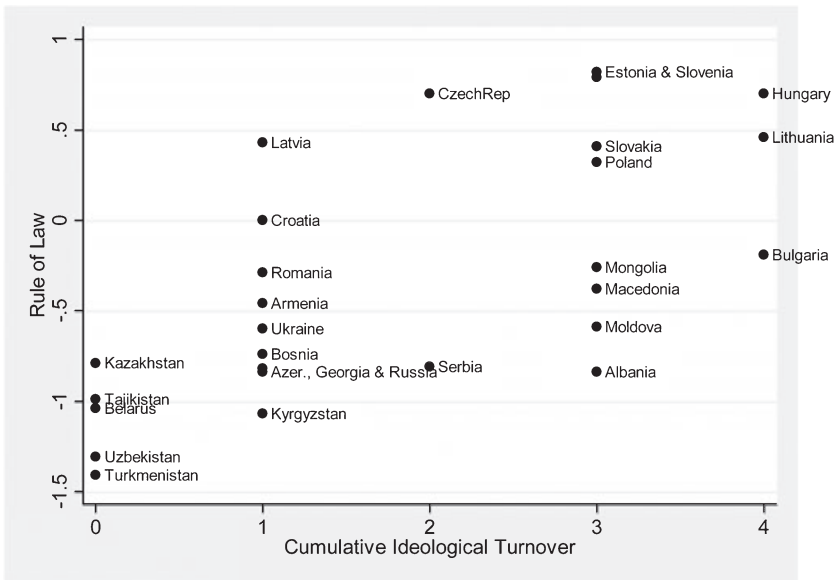


Figure 2. Scatter plot of cumulative ideological turnover and rule of law in 2005.

Table 2. Predictors of level of rule of law in post-communist countries in 1996 and 2004 (OLS with robust standard errors, clustered by country)

	Model 1	Model 2
Ideological turnover	0.242*** (0.064)	
Leadership turnover		0.193*** (0.053)
Centre-left democratic government	0.383** (0.167)	0.511*** (0.177)
Centre-right democratic government	0.252 (0.160)	0.349** (0.168)
Ln of GDP at PPP in 1990	0.692*** (0.172)	0.592*** (0.185)
Years at war	-0.067* (0.036)	-0.081** (0.032)
Constant	-6.804*** (1.368)	-6.056*** (1.479)
R ²	0.710	0.704
F	33.47	27.53
N	54	54

Notes: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$. Coefficients are raw rather than standardised. Due to missing data, Mongolia is not included.

democratic governments, those led by the centre-right parties may be most likely to make and maintain such changes.¹⁶ These dummy variables for centre-left and centre-right democratic governments should be thought of as variant government turnover variables.

With the exception of the impact of centre-right democratic government on ideological turnover, all variables are statistically significant in the expected directions.¹⁷ Compared to cumulative *leadership* turnover, cumulative *ideological* turnover has a slightly stronger association with the rule of law (Table 2). Each ideological turnover (Model 1) is associated with an increase in the rule of law score by 0.242 of a worldwide standard deviation, as compared to 0.193 for leadership turnover (Model 2). It may be that leadership turnover more often allows for continuity of corruption contracts, but the estimated difference is not large enough to draw a reliable conclusion. Note that the turnover measures are significant after controlling for transition to centre-right or centre-left democratic government. Since all cases of higher numbers of turnovers are democracies, this shows that variation in turnover *among* democracies is a significant correlate of variation in the rule of law.

Some of the regressors – particularly ideological and leadership turnover and years at war – might be expected to have a diminishing association with the rule of law. If these variables are transformed by adding one and taking natural logarithms, the results of Models 1 and 2 are virtually identical. Thus, the results do not permit us to distinguish between the hypotheses that these variables have a positive, linear association with the rule of law, and that they have a positive, but diminishing association.

Another issue is whether the variation over time represents independent variation – that is, although researchers commonly examine variation of the governance indicators over time as well as over space, it can be argued that the time-series variation cannot be viewed as independent in the same way as the cross-sectional variation. Models 1 and 2 seek to minimise this problem by using robust standard errors clustered by country,¹⁸ and by using only the earliest (1996) and latest years (2004) of the governance indicators for which all data is available. It can be argued that throwing out all variation over time is not necessarily desirable. Between 1996 and 2004, there were typically two or more full electoral cycles, making it possible to capture significant additional variation in government turnovers. Looking at both years enables us to see whether the regressors – particularly the turnover variables – are correlated with rule of law over time as well as space.

That being said, it is also reasonable to examine pure cross-sectional models, with half the sample sizes, in the two years 1996 and 2004, in Table 3. As would be expected, results are weaker for nearly all variables in the cross-sectional regressions. Whereas having a centre-left or centre-right democratic government is the most robust and significant correlate of rule of law in 1996, it is ideological or leadership turnover and the logarithm of per capita GDP that are most robust and significant for 2004. This is not surprising. Recall that centre-left or centre-right democratic governments are dummy variables for moderate democratic turnover by the time rule of law is measured. Then note that ideological and leadership turnover are cumulative measures that encompass greater variation over the longer (2004) period. By the early end-point of 1996, then, turnover beyond the single turnover necessary to get to ideologically moderate democratic governance by 1996 falls a bit short of being a statistically significant correlate of improvement in rule of law. In contrast, by the late end-point of 2004, cumulative numbers of turnovers, for which large numbers occurred only in democracies, are statistically significant correlates of rule of law. Having a centre-left or centre-right democratic government at the end of the 2004 period is not a statistically significant correlate, once the total number of government turnovers is controlled for.

Causality issues: Mediation and endogeneity

Because government turnover is an outcome of many underlying processes that are also likely to influence any outcome variable of interest, it is difficult to identify the causal impact of government turnover without either a structural model or instrumental variables. This difficulty can be illustrated by taking the rule of law as the outcome variable. There are two issues. First,

Table 3. Predictors of cross-sectional variation in rule of law in post-communist countries in 1996 and 2004 (OLS with robust standard errors)

	Model 3	Model 4	Model 5	Model 6
	1996	2004	1996	2004
Ideological turnover	0.195 (0.120)	0.281*** (0.080)		
Leadership turnover			0.180** (0.085)	0.241** (0.094)
Centre-left democratic government	0.504** (0.189)	0.281 (0.279)	0.566*** (0.190)	0.411 (0.280)
Centre-right democratic government	0.421** (0.185)	0.024 (0.242)	0.472** (0.172)	0.157 (0.262)
Ln of GDP at PPP in 1990	0.457* (0.237)	0.985*** (0.211)	0.372 (0.245)	0.795*** (0.262)
Years at war	-0.079* (0.046)	-0.040 (0.039)	-0.078 (0.046)	-0.071* (0.039)
Constant	-4.800** (1.927)	-9.327*** (1.646)	-4.167** (1.975)	-7.880*** (2.077)
R ²	0.696	0.761	0.703	0.746
F	19.93	82.78	16.31	31.32
N	27	27	27	27

Notes: *** p < 0.01; ** p < 0.05; * p < 0.10. Coefficients are raw rather than standardised. Due to missing data, Mongolia is not included.

turnover is likely to be a relatively proximate cause of more neutral rule of law. Less proximate variables (e.g., structural variables such as economic development) may affect rule of law both through government turnover and directly. In other words, turnover as a proximate cause should be examined not just for its effects, but also for the way it mediates the impact of less proximate factors.

Second, turnover of governments both influences policy and governance and is influenced by them. Weak rule of law and high levels of corruption make it easier for incumbent governments and supporting interest group clients to weaken or undermine democracy, thus making future turnover *less* likely. Examples in post-communist countries include Vladimir Putin's government in Russia, and before that, Aleksandr Lukashenko's in Belarus. On the other hand, high levels of corruption might reduce the legitimacy of governments, and thus make future turnover *more* likely. Anti-corruption backlashes were crucial in recent government turnovers in Albania, Georgia and Kyrgyzstan. Given such reciprocal influences of rule of law on turnover, ordinary least squares estimates of the impact of turnover on the rule of law are inconsistent. To obtain consistent estimates, it would be necessary to use one or more instrumental variables (e.g., Greene 1990: 591–631) to yield fitted values of government turnover that are uncorrelated with the error term. As instrumental variables, we use pre-communist urbanisation, a dummy variable for whether countries came under communist rule around the time of the Bolshevik Revolution or around the time of the Second World War and a dummy variable for whether incumbent communist governments allowed free elections by 1992. The results are similar to those of Table 2, although the estimated impact of ideological or leadership turnover is larger and the estimated impact of the some of the other explanatory variables is smaller.¹⁹

Refinements

In this section, we discuss additional refinements of our measures of government turnover. One might expect that peaceful turnovers would more reliably predict improved rule of law than violent turnovers, or that turnovers to democratic governments would be better predictors than turnovers to authoritarian ones. Similarly, it may be that early turnovers would have a greater impact than later ones, and that turnovers more frequent than the maximum electoral time spans typical of democracies (usually four to five years) would not have much additional impact.

One might argue that some kinds of ideological turnovers are more compatible with development of the rule of law than others. In the two-dimensional ideological space that we used to measure ideological turnover in

post-communist countries, it is likely that turnovers involving transitions back to far-left ideologies would not be expected to improve the rule of law since such governments are ideologically opposed to the idea of a neutral rule of law. A similar point may hold for transitions to extreme nationalist governments. Many such governments might be at risk of becoming involved in internal or international conflicts, which tend to disrupt ordinary economic activity and may lead to increased state intervention and corruption. Extreme nationalist governments may also be more likely to discriminate against internal minorities and political rivals, with negative effects on the rule of law.

Although such refinements of the government turnover measure seem theoretically relevant, there is little scope to examine the impact of many of them in our sample of 27 post-communist countries. In this sample, almost all turnovers have occurred peacefully, and have involved transitions to moderate nationalist, centre-right or centre-left, democratic governments. The relevant refined measures of turnover are thus highly correlated in the post-communist sample. It would be necessary to change or broaden the sample in order to examine whether these types of turnover have different impacts.

Clearly, concepts and measures of turnover might be modified depending on the sample or research question. Suppose one was interested in explaining variation in the development of the rule of law following the transitions to democracy in Latin America. Here our measures of leadership turnover generalise more readily than those of ideological turnover. National identity and its associated issues of ethnic self-rule and rival claims to territory have not been as important in Latin America. One might construct a different cultural dimension, or one might argue that the single economic dimension captures all the ideological variation that is likely to matter. Similar decisions must be made in capturing ideological variation in a more general sample.

The rule of law and its development involve a particular type of formal and informal governance. Here the potential for long-term corruption contracts has been emphasised. However, one might focus instead on short-term or spot corruption, such as legislative 'pork barrel' projects. Past government turnovers and associated expectations of future ones would not be expected to have a significant disruptive impact on this type of corruption. Instead, one might hypothesise that ideologically divided government would be a more effective check on pork barrel corruption. Measures of ideologically fractionated governments might simply count the presence of at least one party or institutional actor of a different ideology, or might weight the extent of ideological division in terms of some type of share of the ruling coalition.

Turnover might also affect policies redistributing from the many to the many, such as entitlement spending on old-age pensions and health care. Here one might expect an inverted U-shaped relation, with more frequent

government turnover initially delivering an assortment of more popular and less expensive measures, and later acting as a constraint against further expansion into more marginal or expensive measures. Some might expect ideological turnover to have stronger effects than leadership turnover, both in delivering and restraining broad redistributive benefits. Others might argue that leadership turnover alone, particularly in a structured democratic context, would be sufficient to deliver the response preferred by the median voter.

Conclusions

Well-functioning market economies depend on legal security of property rights and stable price levels, and within this enabling framework, also on sustained competition. Government turnover is sometimes viewed as potentially destabilising for the rule of law and for fiscal, monetary and regulatory policies. On the other hand, turnover might also be expected to reduce incentives to pursue corrupt benefits that can only be delivered over time, and may provide competitive pressure on governments to hew more closely to neutral fiscal, monetary and regulatory policies. It may be that both intuitions are correct for some types and some frequencies of turnover. And it may be that government turnover is especially important under certain political conditions, such as periods of broad institutional change. Another possibility is that government turnover does not have much impact on certain economic policy outcomes once independent oversight institutions are created and consolidated. For example, once an independent judiciary and a free press develop, they may have more impact on the rule of law than does government turnover. Along with relevant control variables and more varied samples, more refined measures of turnover that distinguish between leadership and ideological turnover, between degrees and types of ideological turnover, between democratic and non-democratic turnover, between violent and peaceful turnover, between more or less institutionally fragmented governments, and between different numbers of such turnovers over some time period, make it possible to test these and other hypotheses.

Government turnover is also of interest in explaining other outcomes. For example, it is widely argued that two democratic turnovers are a good predictor that democracies have become well-established and will be long-lasting (Huntington 1991). This literature might be refined by developing and testing variant hypotheses. What, if any, marginal benefit results from turnovers beyond two? Are some types of ideological turnover better predictors of consolidation than others? Do additional turnovers at regular intervals continue to strengthen democracy? To take another example, the democratic

peace literature argues that democracies are unlikely to fight each other. This is typically shown using some measure interpreted as picking up well-functioning or consolidated democracy (Maoz & Russett 1993). If types of turnover can be used to predict democratic consolidation, they may also be useful in predicting types of democracy that are more normatively moderate and institutionally accountable, and therefore unlikely to fight wars against similar democracies. A better understanding of the consequences of government turnover holds promise in increasing our understanding of these and other central questions in political science.

Notes

1. The points in this paragraph have been widely discussed. Examples of related discussions are: Bardhan and Yang (2004); Celentani and Conde-Ruiz (2006); De Figueiredo (2002); Dixit et al. (2000); Gerring and Thacker (2004); Goergen and Norpoth (1991); Huntington (1968); Molina (2001).
2. In institutional settings where power is divided, changes must be tracked across multiple institutions simultaneously. The next section addresses this measurement issue.
3. An exception to this generalisation occurs when ruling leaders or parties alter their substantive ideologies while retaining power.
4. Consider the Cold War era, Christian Democratic Party-dominated coalitions in Italy. In terms of prime ministers and cabinet personnel, there was a great deal of turnover. On the other hand, the same core of parties, with only gradual changes in personnel, was in power continuously for decades (Golden 2002).
5. On these approaches to measuring fragmentation, see Taagapera and Shugart (1989); Tsebelis (1995).
6. These different thresholds yield virtually identical turnover measures (see below).
7. In particular, for presidencies to be defined as strong, we require that decree powers extend to normal areas of lawmaking, rather than merely to 'emergency' situations, or that vetoes can only be overridden by legislative supermajorities.
8. Detailed definitions are given in Horowitz and Browne (2005). Party ideologies are classified based on party platforms and expert opinions. Codings were made independently by two investigators. In the small number of cases where different codings were made, country experts and additional literature were consulted. No effort was made to make finer distinctions along the two ideological dimensions, because in almost all cases parties themselves and expert observers did not attempt to do so. Thus, the information to attempt finer distinctions across a significant number of cases is not readily available.
9. See Article 18 of the 1992 Constitution, and Article 122 of the 1997 Constitution.
10. By October 1991, the popular front Solidarity movement, which had overwhelmingly won the June 1989 election, had splintered. A loose coalition of new, smaller parties, which derived only from a subset of the much broader Solidarity movement, formed the government after the October 1991 election. This coalition had a centre-right economic ideology similar to a majority of the broader Solidarity movement.
11. The regionally based upper house (the Federation Council) was founded in 1993. Since Putin's election in 1999, appointments and principles of selection to the upper house have been altered so as to guarantee support for the president.

12. Orenstein (2001) and Grzymala-Busse (2003) find that political instability facilitated more effective market reforms in Poland and Hungary as compared to the Czech Republic and Slovakia. On the other hand, Alesina et al. (1996) find that political instability impedes economic growth. In terms of both dependent and independent variables, though, these studies are not directly comparable to each other or to this article.
13. We use the World Bank worldwide governance indicator for rule of law (available online at: http://info.worldbank.org/governance/kkz2005/mc_indicator.asp). The governance indicators are scaled so that the average and median value for the world is zero and the standard deviation is one. The governance indicators distinguish between *rule of law*, defined as equal treatment by the legal system and protection of property rights, and *control of corruption*, defined as bureaucratic and legislative corruption (Kaufmann et al. 2003: 4). This article groups these phenomena together and thus does not distinguish conceptually between rule of law and corruption, viewing a strong rule of law as a relative absence of corruption. If the World Bank control of corruption indicator is substituted for the rule of law indicator as the dependent variable, the results reported below are virtually identical. These results are available upon request from the authors.
14. The measures shown use the rule that at most one-quarter of the party representation in new coalition governments can remain from the old coalition to count a turnover. If one-third is used as the cut-off, the only changes are one additional leadership turnover for Bosnia, and two additional ideological turnovers for Romania.
15. 'Per capita income' is GDP at purchasing power parity (obtained from the World Bank); 'years at war' is the numbers of years (at one-month intervals) in which countries were embroiled in large-scale armed conflict. A 'resource-curse' control variable ('share of fuel exports over GDP') is available only for a large subset of the sample. When it is included, it does not have a statistically significant impact, and the others results are almost unchanged.
16. On transition to democracy and centre-right democratic governments in particular, see Fish (1998).
17. For both models, Bruesch-Pagan tests fail to reject the null hypothesis of constant error variance, and variance inflation factors do not show evidence of multi-collinearity. F tests do not reject the null hypothesis that the association of centre-left democratic government with rule of law is the same as that of centre-right democratic government.
18. Here and elsewhere, simple OLS results are virtually identical to those presented.
19. Results are available upon request from the authors.

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Address for correspondence: Shale Horowitz, Department of Political Science, University of Wisconsin, Milwaukee, WI, USA. E-mail: shale@uwm.edu