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Leader Turnover, Volatility, and Political Risk

MATTHEW D. FAILS
Oakland University

On average, democracy reduces political risk for foreign investors, yet this emphasis on regime type obscures the tremendous variation within autocracies. Moreover, conventional explanations emphasizing the role of checks and balances are ill-suited to explain why some autocracies, which typically lack these features, are associated with such low-risk environments. This article explains variations in political risk by emphasizing the role of autocratic leader replacement. Autocrats select from a heterogeneous mixture of private goods to appease narrow-winning coalitions. Leader replacement in such regimes is, therefore, associated with new winning coalitions and new private goods. When turnover is frequent, the policy environment becomes more volatile and political risk increases relative to autocracies with more stable leadership. Importantly, the risk-increasing effect of turnover holds for both irregular and rule-bound leader transitions in autocracies. These predictions are strongly supported through cross-national quantitative analysis employing a new measure of leaders' risk of political replacement.

Keywords: International Political Economy, Leader Turnover, Autocracy, Political Risk, Political Replacement.

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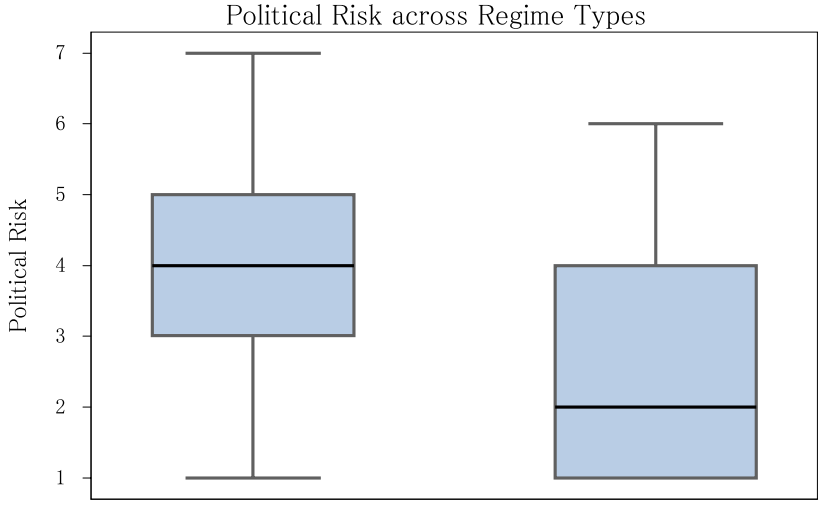
En general, la democracia se reduce el riesgo político para los inversores extranjeros, sin embargo, este énfasis en el tipo de régimen menosprecia la tremenda variación dentro de las autocracias. Además de esto, las explicaciones convencionales que enfatizan el papel de los contrapesos entre diferentes poderes son inadecuadas para explicar por qué algunas autocracias, que normalmente carecen de estas características, se asocian con entornos de bajo riesgo. Este documento explica las variaciones en el riesgo político, haciendo hincapié en el papel de la sucesión del líder autocrático. Los líderes autócratas seleccionan de una mezcla heterogénea de bienes privados para apaciguar a las coaliciones que ganan por márgenes estrechos. El reemplazo del líder autócrata en tales regímenes es, por tanto, asociado a nuevas coaliciones ganadoras y los nuevos bienes privados. Cuando la rotación de líderes es frecuente, el ambiente político se vuelve más volátil y el riesgo político aumenta en relación con las autocracias con un liderazgo más estable. Es importante destacar que el aumento en el riesgo debido a una alta rotación es aplicable tanto transiciones irregular como transiciones determinadas por el líder autócrata. Estas predicciones están fuertemente apoyadas a través de un análisis cuantitativo transnacional que emplea una nueva medida de riesgo de sustitución política del líder autócrata.

Across a number of important economic outcomes, autocracies have narrowed the performance gap with their democratic peers. Consider, for instance, autocracies' ability to attract private investment. In terms of investment from domestic sources, there is no significant difference in performance between democracies and nondemocracies (Gehlbach and Keefer 2011). Authoritarian regimes are also solidly represented now among the top-tier of foreign direct investment (FDI) recipients (Zheng 2011) and are increasingly dependent on this foreign capital. As a percentage of their total economy, FDI in nondemocracies averages 3.2 percent since 1980, roughly on par with the global average of 3.3 percent (Gehlbach and Keefer 2012).

These developments are perplexing in the context of conventional political economy explanations. Consider the issue of FDI, which presents serious political risks to would-be investors, as governments may take advantage of their position *vis-à-vis* investors to usher in a series of *ex post* changes that

Figure 1.
Political Risk in Autocracies and Democracies



Autocracies mean = 3.9, sd = 1.6, range [1,7]; Democracies mean = 2.5, sd = 1.4, range [1,6]

negatively affect the operations or profitability of these now-immobile assets (Jensen 2006, 47). Nondemocracies typically lack institutional features, including checks and balances, which minimize these political risks by creating more stable policy environments (Henisz 2002). Indeed, a long line of theoretical research suggests that democratic institutions enhance policy stability, while empirical work provides evidence of this linkage between democracy and political risk, institutional quality, property rights protection, and investment flows (Henisz 2002, 2004; Jensen 2008; Leblang 1996; Li 2009; Li and Resnick 2003; Weymouth 2011). How then have nondemocracies been able to narrow the gap with their democratic peers?

This puzzle can be resolved in part by recognizing that while democracies on average are characterized by the kinds of policy environments that reduce political risk, they are not synonymous. In fact, along one measure of political risk—namely the perceived risk of expropriation and government action facing foreign investors—many nondemocracies actually perform just as strongly as their democratic peers. As the simple boxplot in Figure 1 demonstrates, autocracies have on average more political risk than democracies, yet there is immense variation within autocracies and considerable overlap across regimes.[1]

[1] Regime classification based on Cheibub, Gandhi, and Vreeland (2009). Full data description is provided in the respective section later in this article.

These patterns are difficult to reconcile with the conventional emphasis on regime type. For instance, foreign investors perceive political risk to be identical in Uruguay and Qatar (both rated 2 out of 7), despite the enormous gulf in political institutions between the former's representative democracy and the latter's dynastic monarchy.

This article explains such variations in political risk by focusing on the likelihood of leader turnover, or what I term leaders' *replacement risk*. Specifically, the replacement of autocratic leaders increases the volatility of the policy environment, which raises the level of political risk facing foreign investors. The microfoundations of this argument, rooted in the selectorate theory of Bueno de Mesquita and others (2003), emphasize leaders' choice between private and public goods for maintaining political support. Since autocrats are more likely to rely on private goods, there is greater heterogeneity in the kinds of policies they enact. Frequent replacement of autocratic leaders, then, raises the volatility of the policy environment as new leaders display greater variation in their deployment of private goods to maintain political support and greater heterogeneity in the preferences of their small winning coalitions. This underlying process translates into increased political risk. Empirically, I provide a new measure of the risk of leader turnover and demonstrate, with a quantitative analysis of cross-national data, that this concept helps explain some of the variation in levels of political risk observed within autocracies.

This article explores the broader implications of these findings in the conclusion, but it is important to highlight one of the key contributions here. For decades, scholars have recognized that certain kinds of leader turnovers, such as coups d'etat, have negative impacts on a host of outcomes including economic development and investment (e.g., Feng 2003; Londregan and Poole 1990; Schneider and Frey 1985). By contrast, one implication of the argument here is that the consequences of leader turnover are not limited to such irregular leader turnovers. By emphasizing the variation in the choice of private goods that new autocratic leaders have, the argument linking turnover to political risk is supported—both theoretically and empirically—for all kinds of leader turnovers, including those that are rule-bound. New autocratic leaders are free to adjust the form and content of the private goods used to appease their winning coalitions, regardless of the mechanism through which they ascended to power.

The remainder of this study is structured as follows. The second section sets out the theoretical relationship between leader turnover, policy volatility, and political risk. The third section describes the construction of a new measure of the underlying *replacement risk* facing leaders. The fourth section describes the data used to empirically test the argument and presents the results. The article concludes with a brief discussion of the implications of these findings for future research.

Leaders, Turnover, and Political Risk

My argument is rooted in three recent theoretical developments. First, the argument here is consistent with a broader disciplinary shift emphasizing how leader-specific features shape incentives for behaviors, including war initiation and termination (see e.g., Goemans 2008; Quiroz Flores 2012; Wolford 2007), the acceptance of loans from the International Monetary Fund (Williams 2011), and acquiescing to the conditionality demands of the international aid regime (Wright 2009), to name only a few. Second, and more specific to political risk, focusing on leaders is helpful given the growing recognition that the linkage between institutional features like veto points and policy stability is often more complex than originally posited. Gehlbach and Malesky (2010), for instance, show that additional veto points can actually enhance, rather than reduce, the likelihood of future policy change by weakening the power of special interests that may prefer the status quo.

Third, a growing body of recent scholarship recognizes that it is characteristics of executives, not formal institutions, which shape differences in political risk. This is particularly true for autocracies. Jensen, Malesky, and Weymouth (2012), for instance, use survey data from a sample of political risk insurers to demonstrate that authoritarian legislatures and opposition parties have no significant impact on the strength of property rights or subsequent investment decisions. Instead, it is executives in authoritarian regimes that are most often viewed as sources of political risk.

The argument offered here draws on these developments to suggest that political risk in autocracies is determined in part by the likelihood of leader turnover. Theoretically, the argument has two distinct parts. First, higher likelihood of leader replacement affects the volatility of the policy environment. Second, when policy environments are more volatile, political risk increases. This second linkage is widely acknowledged, particularly when it comes to foreign investors whose profitability depends on the maintenance of a stable policy environment (see e.g., Jensen *et al.* 2012). Indeed, the risk-reducing effect of policy stability is a central theoretical underpinning for the voluminous literature highlighting democracy's positive impact on FDI inflows. For these reasons, I focus the theoretical argument on the first linkage.

Leader turnovers are especially likely to lead to policy volatility in authoritarian regimes. Although long recognized in the scholarly literature (see e.g., Bunce 1979), Bueno de Mesquita and others' (2003) model provides a formal logic to this claim. This model of political survival, which classifies regimes in terms of the size of the selectorate and winning coalition, is perhaps most frequently used to explain the relative provision of public versus private goods across regimes. Large coalition regimes are forced to rely on public goods to maintain political power, while their small coalition counterparts can provide private goods to a narrow group of supporters.

There is greater diversity in the kinds of private goods that autocrats use to maintain their political support. While democratic leaders maintain support through effective public policy whose benefits accrue to entire societies, leaders of autocracies instead choose from a large and heterogeneous repertoire of excludable private goods. Such leaders may placate their winning coalition by providing selective access to agricultural endowments, creating distortionary monopsonies to transfer funds to urban interests, or even selectively securing property rights for important sectoral interests (see e.g., Bates 1981; Haber, Razo, and Maurer 2003). Ownership of state monopolies, access to reserves of foreign currency, or bribes can all be effective private goods when it comes to maintaining political support in small coalition regimes.

In autocracies, however, it is not just the content of private goods that displays this heterogeneity. The winning coalition of successive leaders also displays more variability; when the winning coalition is small, the odds that each successive winning coalitions' support can be maintained with the exact same mix of initial private goods diminishes. Military leaders who seize power from a civilian dictatorship in a coup d'état, for instance, may find that they can maximize their own time in office by devoting a larger share of the budget to defense spending, rather than the private goods that the previous dictator employed to maintain his own support. Collectively, these arguments suggest that leadership turnover in autocracies increases the volatility of the policy environment. Given their reliance on private goods, and the greater likelihood that their winning coalition differs in preferences from the former, new autocratic leaders are able and willing to alter the policy environment as they seek political support.[2]

Though rooted in well-known theoretical arguments, these predictions deviate from most existing work. For instance, unlike most extensions of Bueno de Mesquita and others' (2003) model which focus on the consequences of winning coalition size, the critical element here is the heterogeneity of successive winning coalitions in autocracies. Though I am unaware of similar arguments when it comes to political risk, other scholars have provided important evidence of the key causal process. For instance, McGillivray and Smith (2004, 2008) show that leadership turnover in small coalition systems reduces international trade flows, as potential trading partners are unwilling to commit to the large sunk costs of trading relations given the policy uncertainty brought about by leader turnover.

Another novel element of this argument concerns the manner in which autocrats exit from power. As noted above, the effects of irregular leader turnovers on the volatility of the policy environment are well known. It would

[2] This argument does not imply that low replacement risk is a panacea for investors when it comes to the risks associated with authoritarian regimes; even secure autocrats typically face few constraints on their decision making. All else equal, however, investors should perceive less risk in a low replacement autocracy than a high replacement autocracy.

therefore be unsurprising to discover that countries with a history of coup-driven leadership turnovers, for instance, are associated with greater political risk. This pattern almost certainly accounts for some of the differences observed in political risk between autocracies and democracies; in the sample used below, leaders of autocracies are more than five times as likely as their democratic peers to suffer such irregular exits from power.[3] By contrast, the argument here suggests that all types of leader turnovers, even those that are rule-bound, can increase political risk. Indeed, even when leaders in autocracies exit in regular fashion—through natural death, replacement through term limits, or formalized lines of hereditary succession, for example—the new leader is still free to adjust their provision of private goods to the needs of their new winning coalition. This adjustment process is what increases the volatility of the policy environment and raises the levels of political risk.[4]

In the analysis below, I provide empirical evidence that increases in a new measure of leaders' replacement risk are associated with more political risk, even when we exclude past irregular exits from the calculation of this variable. However, there are also numerous country examples which suggest that this relationship holds. Mexico under the Institutional Revolutionary Party (1929-2000), for instance, is a classic example of autocratic rule maintained through frequent, rule-bound transition between leaders (see e.g., Magaloni 2008). Nevertheless, leader turnovers were followed by considerable changes to the policy environments. In the wake of Mexico's debt crisis, Miguel de la Madrid, president from 1982 until 1988, led a considerable ideological shift toward economic liberalization, austerity, and greater attention to private investment and business interests (Kaufman 1989, 115). Though Madrid assumed power in a regularized fashion, he came to power with a considerably different winning coalition. It is perhaps unsurprising then that his ascendency to the presidency led to a "virtual elimination" of the neo-Keynesians and their winning coalition of trade unionists, who held sway under de la Madrid's predecessor, López Portillo (Kaufman 1989, 114).

For democracies, leader turnover should have less impact on volatility and political risk. This conditional hypothesis flows logically from the emphasis on private and public goods; given the much larger winning coalitions in democracies, all leaders are forced to rely on public goods for political support. Moreover, leader turnover is a defining element of democracy, and is thus anticipated and regularized to the extent that it has a negligible effect on the kinds of policy uncertainty that would generate political risk for investors. Considered

[3] Results are available from the author. This analysis uses leader-specific data from Goemans, Gleditsch, and Chiozza (2009). See the Empirical Analysis section of this article for more details.

[4] Note that the argument offered in this study does not claim that one kind of leader turnover has a greater impact on political risk than the other. Extending this general framework in such a way is an important avenue for future research, though will be complicated by the fact that countries which experience frequent *irregular* turnovers likely differ from regimes with more *rule-based* transitions in ways that affect political risk independently. I explore this issue in more detail later.

in total, this theoretical argument leads to two relatively straightforward hypotheses. First, as leader's replacement risk increases, political risk should also increase, though the effect will be most pronounced in autocracies. Second, this effect is not limited only to the risk of losing office in an irregular fashion.

Few prior studies have explored this issue empirically. Clague and others (1996) provide preliminary evidence that autocrats serving longer durations are associated with stronger contract and property rights; however, their empirical models lack any controls for factors that might affect the strength of property rights generally or affect both property rights and the duration of leaders' tenure jointly, such as economic crises or inflation. The closest prior work is Li's (2009), who shows that expropriations of foreign-owned assets occur less frequently in autocracies with long-serving rulers. Li's work is an important complement to this study, although it differs from the current paper in several crucial ways. For starters, Li's analysis focuses on a conceptually distinct outcome, namely actual expropriation acts as opposed to general assessments of political risk. Li's work is also limited temporally to the time period 1960-90, and actual expropriation acts have diminished considerably over the more recent decades. While concerns about expropriation are still present among potential investors, these concerns are much less common than are concerns on a broad suite of adverse government activities, including *ex post* regulatory changes, breach of contract, and restrictions on capital transfer (United Nations Conference on Trade and Development 2012; World Bank 2012, 21). By focusing on a broader measure of political risk, this paper analyzes the linkages between replacement risk and a core concern of investors.

Each of these prior studies also employs a narrower theoretical focus by adopting the perspective of the would-be expropriator and assuming that leaders' replacement risk monotonically shapes their preferences for expropriation. Such arguments expect that leaders act as "roving bandits" (Olson 1993), although this assumption is questionable. Important work on FDI, for instance, shows that foreign capital provides political benefits to even the most at-risk leader, such as increased wages and consumer choices (see e.g., Baker 2003; Pinto and Pinto 2008). As such, there is no clear theoretical reason to expect that replacement risk translates into immediate expropriatory activities. This is especially true when considering the effects of rule-bound transitions in autocracies; the regularized replacement of leaders should mitigate their "roving bandit" impulses, yet by focusing only on the tenure of leaders, these existing arguments do not consider how the way in which leaders exit affects political risk.

Measuring Replacement Risk

Prior research has measured leaders' replacement risk statistically, using duration models to calculate predicted probabilities from regressing a binary variable indicating whether a leader lost power during a given year on

independent variables such as economic performance or past leadership turnovers, a process dating back to Cheibub (1998), though used more recently by Licht (2010). Such approaches, however, are problematic for use here. My argument emphasizes that *irregular* and *rule-bound* turnovers both impact political risk. Applying a duration model approach would necessitate not only separate empirical models, but separate theoretical priors as to the causes of both kinds of leader turnover. This is especially challenging for modeling *rule-bound* turnovers in autocracies, as it is unclear whether there are systematic forces impacting regular leader turnovers beyond age and other idiosyncratic features of authoritarian politics. In the absence of well-specified theoretical and empirical models, such an approach would introduce a large amount of error into the key independent variable.[5]

For this analysis, I argue that leader replacement risk can be usefully measured by considering prior leaders' experiences in office. A history of frequent leader turnover is a strong sign that leaders are more vulnerable to replacement. Where leader turnover has been historically rare, by contrast, replacement risk is lower. To create my measure specifically, I use data recently collected by Goemans, Gleditsch, and Chiozza (2009) that identify the effective political leader of independent states from 1875 until 2004.[6] I first identify the regime type in the final year, using Cheibub, Gandhi, and Vreeland's (2009) binary democracy indicator.[7] Then, for each country, I count the number of previous leadership turnovers that occurred, for all consecutive years in which the country's regime type was the same as observed in 2004 (the final year in the dataset). This counting procedure ensures that I count only leadership changes that occurred within the final regime spell. In other words, for a given democracy in 2004—say, Argentina—I count only the number of leadership changes since 1983, when Argentina began its current democratic spell. Using

[5] Wright (2008) provides another example of a similar approach, though his empirical model estimates the probability of regime, not leader, failure. Following his approach would be especially problematic for the testing of this leader-centric argument, as leaders can be replaced without this constituting a threat to regime durability.

[6] Their existing dataset includes information up to the end of 2004, although many of those leaders in power at the end of their dataset did not "exit" office for several years later or are still in power now.

[7] I use a binary measure of regime type because alternatives, such as Polity or Freedom House, have several pragmatic disadvantages that preclude their use for calculating this variable. Principally, these measures lack the precise coding decisions separating democracies from autocracies. For instance, scholars regularly debate over which specific polity score represents the divide between autocracies and democracies. Imposing these relatively arbitrary rules to determine which years would be retained for constructing this variable would result in the loss of valuable information. For example, Polity IV suggests that a polity score of 7 separates partial from full democracies. Would a leader turnover in a year where a regime scored 6 on this metric be irrelevant if the polity score increased to 7 in the subsequent year? It seems likely that this information would be quite useful, even though by Polity IV standards this is a qualitatively different regime type. In this instance, binary regime indicators ensure that the construction of this replacement risk variable uses the largest sample of relevant years.

information from a single regime spell is necessary as the turnover of prior autocratic leaders should not factor into the perceived risk of replacement facing democrats, or vice versa.

Counting the number of leader changes provides an easy-to-digest measure, but given that the number of years in each regime spell differ this count is not directly comparable across countries. For example, a country that experienced five leader changes over an uninterrupted spell of 50 years should have lower risk of leader replacement than another country that experienced five changes over 25 years, even though the number of actual turnovers is identical. Therefore, I weight this count of past turnovers by the number of years in the regime spell (*total regime spell years*). Continuing with the Argentina example, I divide the number of turnovers (five) by the number of continuous years that Argentina was the same regime type as observed in 2004, in this case, 22 years. The result, a count of past leader turnovers weighted by regime years, is referred to as *replacement risk* in the sections that follow, where higher values indicate greater likelihood of replacement.[8]

As noted above, the theory also suggests that leader turnover of any type should affect the level of political risk. To evaluate this portion of the theoretical argument, I also calculate *replacement risk* as the weighted count of past turnovers while excluding any turnovers deemed "irregular" by Goemans, Gleditsch, and Chiozza (2009), namely leaders who exit from power by military *coups,* overthrows, or ousters by popular protests. Both of these values of *replacement risk* (i.e., measures based on all past turnovers and only those rule-bound turnovers) are listed in Table A5 in the Appendix.[9] As discussed below, data limitations for the dependent variable measuring political risk necessitate that *replacement risk* is calculated in a strictly cross-sectional fashion.

Empirical Analysis

I evaluate the links between leaders' *replacement risk* and the level of political risk in a country using a cross-sectional quantitative analysis of a global sample. Including observations of all regime types is necessary as the argument posits a crucial conditioning effect of regime type on the relationship between replacement risk and political risk. Though the argument developed above works through the mechanism of policy volatility, I limit the empirical

[8] Some readers may be concerned that the regime spells identified are too short in duration to contain meaningful information concerning the likelihood of leader turnover. However, the mean number of years in regime spells for autocracies in the sample is 37 (standard deviation of 16), while for democracies it is 29 (standard deviation of 19).

[9] Since the number of leader turnovers in autocracies is also affected by institutional features, such as the existence of organized parties and elections, the empirical analysis in the following section controls for such factors. The empirical analysis also includes the variable total regime spell years as a control variable, as shorter regime spells limit the opportunity for leader turnovers.

focus to the relationship between *replacement risk* and political risk. This is largely because there are few reliable measures of the volatility of the policy environment, and even those that do exist are limited conceptually. For instance, Fatás and Mihov's (2013) measure views policy volatility strictly through the lens of unexplained changes in government consumption. While some autocrats may choose to manipulate government spending to maintain their support, there is no reason that they would be limited to such a narrow set of tools. Absent country- and leader-specific measures of the private goods used to appease winning coalitions, it is difficult to empirically parse out this intervening process.

The empirical analysis here measures political risk with data from the political risk insurance industry, first described in Jensen (2008). Specifically, I use the Belgian Export Credit Agency ONDD's measure of "risk of expropriation and government action" (Delcredere Ducroire 2013). Political risk insurance has developed as an important tool for multinationals when it comes to managing the risks inherent in major investments abroad. It is also a unique form of insurance, as it protects against specific kinds of political risks including those posed by war and other forms of political violence, the risk that governments may restrict capital flows or repatriation of profits, and acts of expropriation or breach of contract (Jensen 2008, 1043).

Though the specific premiums that firms pay for political risk insurance are confidential, some insurers make public the underlying ratings which help drive the overall price that firms pay. The rating for "risk of expropriation and government action" from the ONDD, which I employ here, is one such rating. As Jensen (2008, 1045) notes, ONDD scores are generated by considering a variety of quantitative indicators that the political risk insurance industry views as indicative of potential expropriation risk, and then supplemented through qualitative analysis by political risk insurance experts. While both components of the rating process consider past actions, the ratings are designed to measure the level of risk in the future, with these specific ratings designed for projects in a country over the next 15 years. The result is a seven-point scale with higher numbers indicating greater risk of detrimental actions like expropriation along with other actions deemed harmful for potential investors, such as *ex post* changes to the business environment; sample values and representative countries include Denmark and the United States (rated a 1), Zambia and India (rated a 3), Venezuela and Nigeria (rated a 5), and Haiti and Zimbabwe (rated a 7).

To match the temporal span of the data used to construct *replacement risk*, I use political risk data from 2005.[10] To evaluate how replacement risk affects

[10] Studies using this measure of political risk are typically cross-sectional, as the ONDD rating agency does not readily distribute panel data (see e.g., Fails 2012). In an important new paper, Graham, Johnston, and Kingsley (2012) have assembled a unique panel dataset of this particular risk measure for an eight-year time span (2002-09). However, my own analysis of their

this variable across regimes, I include Cheibub, Gandhi, and Vreeland's (2009) binary measure of democracy as well as a multiplicative interaction term *democracy (x) replacement risk* to capture the conditional nature of the argument.

Analyses based on observational data face a number of obstacles to causal inference, with endogeneity often at the top of the list. While the measurement of *replacement risk* over a relatively long time period helps, these concerns are still important. Some solutions, such as instrumental variable approaches, are particularly difficult as instruments that predict leader turnover but do not affect *political risk* are not widely available.[11] To help mitigate issues of endogeneity, the baseline empirical models control for a number of economic factors that render leadership more unstable and the policy environment more volatile. These include the log value of *income per capita,* a measure of the change in income (*economic growth*) from 2000-05, and the average level of inflation over the same time span. Income variables are taken from the Penn World Tables version 6.3 (Heston, Summers, and Aten 2009), and inflation is measured as the gross domestic product deflator, taken from the World Bank's Development Indicators (World Bank 2010).[12] Concerns of endogeneity are also assuaged by controlling for a country's natural resource revenues, as resource wealth has been shown to extend leaders' tenure and generally enhance political stability and regime durability (Smith 2004; Morrison 2009). I use Ross' (2013) measure of (log) oil and gas income per capita as the key measure of resource wealth.[13]

I also assess the robustness of the main results by including a variety of additional control variables. I include the dummy variable *multiparty autocracy* to distinguish autocracies that allow independent candidates to participate in elections from their personalist or military counterparts (Hadenius and Teorell 2007). Because the effect of leader turnover on political risk may differ for

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data—which the authors kindly shared—suggests that for a large majority of countries, yearly observations of political risk do not change. Among autocracies in this paper's sample, for instance, the percentage of countries that experience no change on the 1-7 scale of political risk over the time period is 63 percent. Only 32 percent of countries experience a single-point change over the period, and less than 5 percent of countries experience a change greater than a single-point shift over the entire period. Expanding panel data measuring political risk is an important direction for future research, but at this point in time, the vast majority of the variation in measures of political risk is cross-sectional, not temporal.

[11] Even a leaders' age, which should be associated with losing office, is likely to affect political risk through channels beyond policy volatility. For instance, Horowitz, McDermott, and Stam (2005) show that leader age influences the likelihood of interstate conflict, which would also increase political risk.

[12] In additional analyses reported below, I show that that the main results are robust to measuring economic growth and inflation at their 2005 levels, instead of the average.

[13] Following Ross (2013) I use the log value of this variable, though the results are identical when using the nontransformed value.

autocracies that facilitate some sort of regular semi-competitive process, I also include the interaction term *multiparty autocracy (x) replacement risk.* I also include a dummy variable distinguishing *presidential regimes*, as such institutional features provide greater autonomy for executive action and autonomy, which is a key predictor of political risk.[14] A dummy variable for the Organisation for Economic Co-operation and Development (OECD) ensures that any results are robust to a developing world sample.

Two additional variables round out the robustness specifications. The first is *total regime spell years*, as described in the above section on the measurement of *replacement risk.* This variable measures the age of the regime and including it in the models ensures that any identified relationship between the key variables reflects the theoretical mechanism and is not capturing a simpler relationship between frequent regime changes and political risk. The second is the natural log of the current leaders' tenure in days. Table A1 in the Appendix contains descriptive statistics for all variables employed.

Model estimation is straightforward. Though the dependent variable is ordinal, I focus my presentation on the estimated results from ordinary least squares (OLS) regression (though I present the results of analogous ordered probit regression models in the Appendix). Using OLS regression provides a particular advantage in terms of easily interpretable coefficients, including the interaction term. Moreover, the usual limitations of OLS with ordered dependent variables are not particularly important in this application because *expropriation risk* has seven categories and I am not making point predictions from the regression models. Table 1 reports the results of the baseline models.

Column 1 estimates the models using the main measure of *replacement risk*; that is, calculated by counting all past leader turnovers. The results here provide strong support for the key argument. The coefficient for the interaction term is significant, suggesting that the effect of *replacement risk* on political risk differs between democracies and autocracies. Given the coding of the key variables, interpreting this effect for different regime types is straightforward. In nondemocracies (*democracy* coded as "0"), higher levels of *replacement risk* are associated with an increase in political risk and the effect is statistically significant. In terms of the controls, there is evidence that lower levels of income and greater oil wealth are associated with higher levels of political risk.

[14] Some readers may think that exogenous election timing and fixed term limits of presidential regimes require the inclusion of an interaction term between presidential regimes and *replacement risk*. However, this would only be necessary if we believed that the effect of a leader turnover on political risk differed depending on whether or not that turnover occurred because of some feature of presidentialism, such as term limits, or from some other manner of exiting power. As the theory makes clear, leader turnover negatively affects policy volatility and thus political risk regardless of the mechanism through which new leaders are replaced.

Table 1. Regime Type, Leader Turnover, and Political Risk

	(1)	(2)
	Replacement Risk as All Turnovers	*Replacement Risk* as All Turnovers Minus Irregular Exits[a]
Replacement risk	3.47**	4.61***
	(1.72)	(1.56)
Democracy	–.35	–.23
	(.33)	(.32)
Replacement risk (x)	–4.35**	–5.16***
Democracy	(1.81)	(1.66)
Income per capita (ln)	–.82***	–.88***
	(.08)	(.09)
Economic growth, 2000-05	–.03	–.04
	(.04)	(.04)
Inflation, 2000-05	.02	.03
	(.01)	(.02)
Oil income	.03*	.02
	(.01)	(.01)
Constant	1.44***	1.75***
	(.81)	(.90)
Observations	137	111
R-squared	.589	.63

Notes: OLS regression coefficients. Dependent variable is ONDD rating for expropriation risk. Standard errors in parentheses. [a] Sample is all observations where this measure of *replacement risk* is non-zero. *** p < .01; ** p < .05; * p < .1.

The second column re-examines this relationship, this time using the measurement of *replacement risk* that excludes any irregular leader exits during the regime spell. This measure can be interpreted as the risk of a leader losing power in a rule-bound fashion. I limit the sample in these models to those observations where this measure of *replacement risk* is non-zero. Along this measure of *replacement risk,* 26 observations have a score of zero, which means that every past leader turnover during the regime spell was irregular. As I am interested in the effects of rule-bound leader turnovers on political risk, I exclude those observations that have never experienced such turnovers from the analysis.[15]

The results of this model provide strong support for the most novel hypothesis in this paper, namely that even rule-bound leader turnovers in autocracies increase political risk. For nondemocracies, the estimated

[15] However, Table A2 in the Appendix presents additional models using this measure of *replacement risk* and the full sample (N = 137). The results from these models are very similar to those presented in the main text.

coefficient for replacement risk is large and significant at less than a one-percent confidence level. As predicted, rule-bound transitions in democracies have no impact on levels of political risk; the marginal effect of rule-bound replacement risk in democracies is not significantly different from zero. While the differential effects in democracies and autocracies can be gleaned directly from the coefficient estimates reported in Table 1, they can also be depicted graphically. Figure 2 reports the marginal effects of replacement risk on political risk for autocracies and democracies, based on the models in Table 1. In autocracies, the effect is large and statistically significant, while the impact in democracies is negligible and not distinguishable from zero at conventional levels of significance testing.

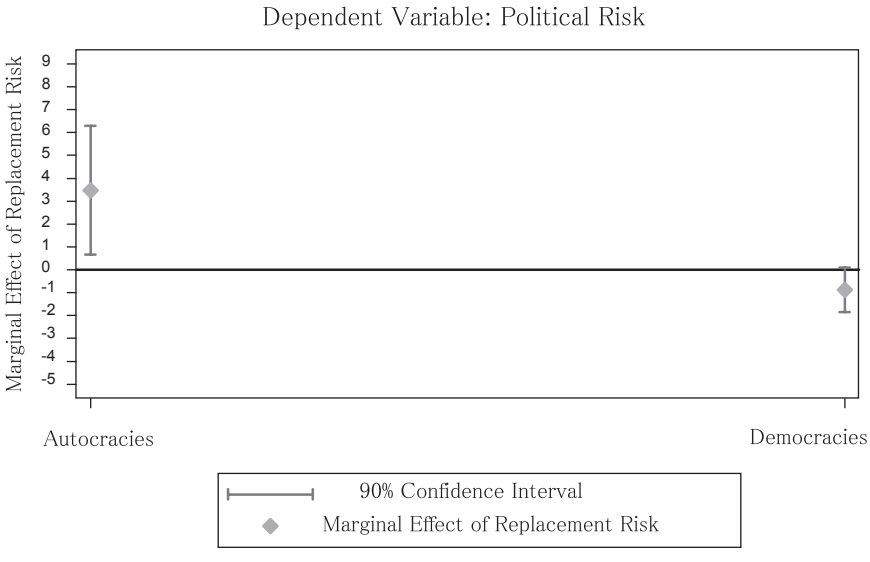
The impact of *replacement risk* is also substantively important. Though not reported to save space, I have also estimated standardized *beta* coefficients for the models in Table 1. The estimated *beta* for *replacement risk* in the first column is 0.3, three times the size of the standardized coefficient for *oil income*, and over half the magnitude of the standardized coefficient for *income per capita.* Similar comparisons exist for the second column. In short, the risk of leader replacement exerts a statistically significant and substantively important impact on political risk in autocracies.

Recall that while the theory described in the prior section argued that both irregular and rule-bound turnovers should affect political risk; it did not make a specific prediction on the relative sizes of these impacts. One interpretation from the results in Table 1 is that rule-bound transitions raise political risk in autocracies more than irregular turnovers; the coefficient on replacement risk is larger in column 2, which excludes irregular leader turnovers in the calculation of the key independent variable, than in column 1.

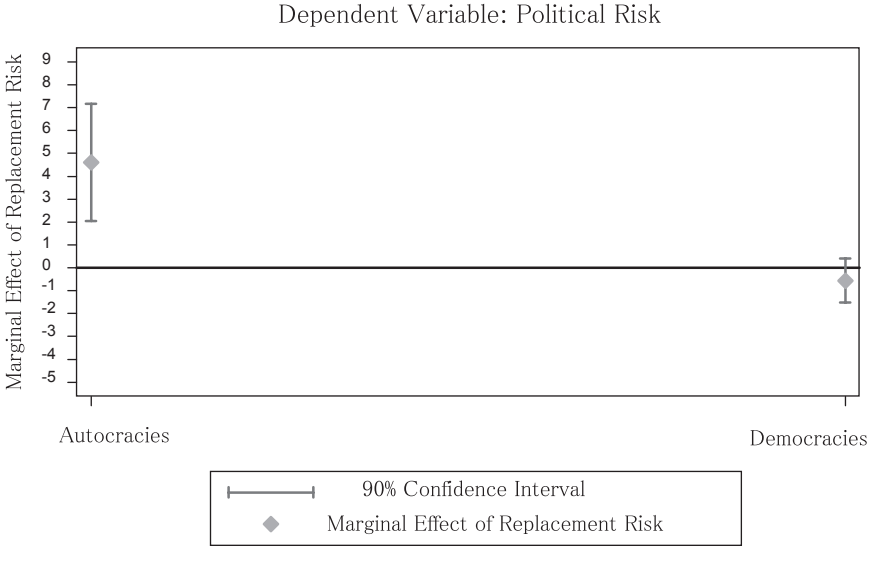
However, further investigation suggests that these differences are instead a reflection of the different samples employed. As noted above, column 2 excludes the 26 cases in which all leader turnovers have been irregular. Not surprisingly, these cases are significantly less democratic than the 111 cases remaining (mean values of democracy of 0.3 and 0.7, respectively) and have lower levels of economic development (mean values of log income per capita of 8.2 and 8.9, respectively). Each of these differences is statistically significant. Given these characteristics, such cases are likely over-determined in terms of their values of the dependent variable—indeed these 26 cases have a mean political risk score of 4.1, versus a mean score of 2.8 for the remaining 111 cases. Including these observations in column 1 serves to artificially reduce the magnitude of replacement risk as measured in this model. In Appendix Table A3, in the column labeled "Baseline," I report the exact same regression as Table 1, column 2 only using the full sample of 137 observations. The coefficient for replacement risk in this alternative specification is still statistically significant but reduced in magnitude by almost 40 percent and is now smaller than the coefficient for replacement risk in column 1. This evidence suggests that rule-bound transitions are not as detrimental to

Figure 2.
Marginal Effect of Replacement Risk across Regime Type

Panel A: Results from Table 1, Column 1



Panel B: Results from Table 1, Column 2



political risk as irregular exits, though future research is needed to further disentangle the theoretical and empirical impact of these different types of leader turnover.

Table 2 presents a series of additional models that assess the robustness of these results. Columns 1-3 use the measure of *replacement risk* that calculates all past turnovers; columns 4-6 employ the measure that excludes past irregular exits, again limiting the sample to those observations where this measure is non-zero. For each measure, I present three robustness analyses. First, I re-estimate the baseline models from Table 1 while calculating the variables *economic growth* and *inflation* using their 2005 levels, instead of averages across 2000-05. This change to the model specification does not alter the previous conclusions; increases in *replacement risk* still significantly raise the level of political risk in autocracies, and the key coefficient actually increases in magnitude and level of statistical significance. The same is true of column 4, using the rule-bound measure of *replacement risk.*

Column 2 (as well as column 5) in Table 2 includes a full battery of control variables. Of immediate importance is the fact that the key results remain unchanged in these specifications. Only the control variable distinguishing OECD countries from the rest of the sample reaches any degree of statistical significance routinely, and unsurprisingly shows that such countries have less political risk. Finally, column 3 (and column 6) in Table 2 re-estimate these full models while excluding those observations coded as the highest level of the dependent variable. This helps ensure that extraordinarily risky environments—and any associated patterns in leaders' *replacement risk*—are not unduly influencing the main results. The results in these models suggest that they are not. Even when excluding these few observations, the core results remain. The risk of leader replacement—even when such turnovers are strictly rule-bound—has a strong effect on the degree of political risk in autocracies.

Another way of assessing the substantive importance of this finding is by considering how *replacement risk* modifies the effect of regime type on political risk. It is widely known—and documented in Figure 1 above—that democracies have lower levels of political risk than autocracies. In additional analysis, I have calculated the marginal effects of the main interaction effect symmetrically; that is, I have examined how *replacement risk* modifies the impact of regime type on political risk. Interpreting interaction effects symmetrically is appropriate for analyzing most conditional hypotheses (Berry, Golder, and Milton 2012), but in this case the results provide additional evidence on the substantive importance of *replacement risk*. At very low levels of leaders' replacement risk (for instance 0.02, roughly the level observed in Guinea in the sample here), the marginal effect of *democracy* on political risk is not statistically significant. In other words, at very low levels of *replacement risk*, autocracies and democracies have statistically indistinguishable levels of political risk, all else equal. Figure A1 in the Appendix reports the full marginal effect plot.

Table 2. Robustness Analysis

	All Turnovers			All Turnovers Minus Irregular Exits		
	(1) Economic Variables Measured in 2005	(2) All Controls	(3) Drop Highest Political Risk Category	(4) Economic Variables Measured in 2005[a]	(5) All Controls[a]	(6) Drop Highest Political Risk Category[a]
Replacement risk	3.71**	5.14**	5.25***	5.53***	4.69***	5.29***
	(1.85)	(1.98)	(1.80)	(1.39)	(1.70)	(1.42)
Democracy	−.21	.41	.54	−.03	.26	.47
	(.34)	(.39)	(.37)	(.30)	(.41)	(.37)
Replacement risk (*x*)	−4.26**	−6.19***	−6.06***	−5.78***	−5.64***	−5.92***
Democracy	(1.90)	(1.94)	(1.75)	(1.45)	(1.71)	(1.45)
Income per capita (ln)	−.82***	−.55***	−.56***	−.81***	−.67***	−.62***
	(.07)	(.11)	(.11)	(.09)	(.14)	(.13)
Economic growth, 2000-05	.01	−.06	.00	−.01	−.05	−.02
	(.03)	(.04)	(.03)	(.03)	(.04)	(.04)
Inflation, 2000-05	.06***	.02**	.02**	.07***	.03	.03
	(.02)	(.01)	(.01)	(.02)	(.02)	(.02)
Oil income	.01	.03**	.02**	.00	.02	.02
	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
Multiparty autocracy		.31	.12		.04	.25
		(.39)	(.34)		(.45)	(.43)
Multiparty autocracy (*x*)		−.14	.96		2.88	2.02
Replacement risk		(1.75)	(1.58)		(2.08)	(2.01)
Presidential		−.25	−.16		−.06	−.05
		(.25)	(.24)		(.24)	(.22)
Total regime spell years		.00	.00		.01	.00
		(.01)	(.01)		(.01)	(.01)
Final leader tenure		.12	.18**		.01	.10
		(.09)	(.08)		(.09)	(.07)
OECD dummy		−1.46***	−1.41***		−1.09***	−1.13***
		(.28)	(.28)		(.30)	(.29)
Observations	137	136	133	111	110	108
R-squared	.626	.66	.67	.68	.68	.7

Notes: OLS regression coefficients. Dependent variable is ONDD rating for expropriation risk; standard errors in parentheses. [a] Sample is all observations where this measure of replacement risk is non-zero. *** p < .01, ** p < .05, * p < .1 Constants included but not reported.

The Appendix to this paper reports additional results attesting to the robustness of these findings. Table A2 replicates the models in Tables 1 and 2, using ordered probit regression. The estimated coefficients display the same pattern of signs and levels of statistical significance. Interpreting the effects are less intuitive in this framework, as one has to interpret the effect of *replacement risk* on the likelihood of a particular regime type falling into one of seven categories of political risk. However, the results of this process provide the same substantive interpretation. Increases in *replacement risk* reduce the likelihood that an autocracy falls into a low category of political risk and increase the likelihood of receiving a high rating of political risk; the effect is negligible in democracies.[16] Table A3 replicates the OLS regressions in Table 1, column 2, and Table 2, columns 4-6, using the full sample of observations (i.e., not limiting the analysis to those observations that have non-zero measures of rule-bound *replacement risk*). Table A4 does the same procedure, only estimates the models via ordered probit. Across all changes to measurement, sample specification, and estimation strategy, the core results remain unchanged.

Conclusions and Implications

This article began with the simple but important observation that autocracies are associated with, on average, more political risk than democracies, but that such a statement masked enormous intra-regime variation. Moreover, conventional political economy explanations, which emphasize how checks and balances facilitate policy stability, are ill-suited to explaining why some autocracies are associated with such low-risk environments. This study developed an alternative argument emphasizing how leader turnover and the choice between private and public goods explains part of the variation observed in levels of political risk in autocracies. A quantitative analysis of cross-national data provided strong evidence for the main hypothesis, namely that a greater likelihood of autocratic leader turnover raises the level of political risk. The substantive effects of this finding are large and important; at very low levels of leaders' replacement risk, there are no significant differences between regime types when it comes to levels of political risk.

Collectively, the findings provide a number of key implications for the literature on political risk and beyond. Most directly, the results provide important insights into the determinant of political risk by providing a theory

[16] These probabilities are calculated using the *Clarify* package for Stata (Statacorp, College Station, TX) (King, Tomz, and Wittenburg 2000). All control variables in the model are held to their mean or median. Full results available from the author.

and empirical evidence explaining the variation within autocracies. This focus is useful given the impact of political risk for a variety of outcomes of interest, such as the attraction of FDI, and the broad improvements in autocratic economic performance discussed at this paper's outset. By providing an argument on the determinants of policy volatility, moreover, the findings can also be extended to a alternative research agendas in which the volatility of the policy environment plays a formative role, including the development of strong property rights institutions (Weymouth 2011), rates of economic growth (Fatás and Mihov 2013), or the existence of a "resource curse" (van der Ploeg and Poelhekke 2009), to name a few.

Perhaps most importantly, the results should stimulate renewed focus on the manner in which leaders lose power. By anchoring the argument in leaders' decisions regarding public and private goods, I have shown that autocratic leader turnovers raise the level of political risk even if those turnovers are rule-bound. Scholars have long known that irregular turnovers are associated with a variety of negative political and economic consequences. This study shows that, at least for political risk, regular changes of autocratic leadership exert a similar negative impact. Continued emphasis on leader turnover could lead to a variety of other novel findings. For instance, Keefer (2007) has demonstrated that "old" democracies have less corruption, stronger rule of law, and less public spending than do "new" democracies. Some of these differences may be attributable to the policy volatility that comes from the replacement of autocratic leaders with democratic ones. Examining how leader turnover interacts with regime transitions, and the resulting impact on political risk, is beyond the scope of this paper yet future work on these issues has the potential to clarify important questions in comparative political economy.

Appendix

Figure A1.
Marginal Effect Plot of Symmetric Interaction Effect, from Table 1, Column 1

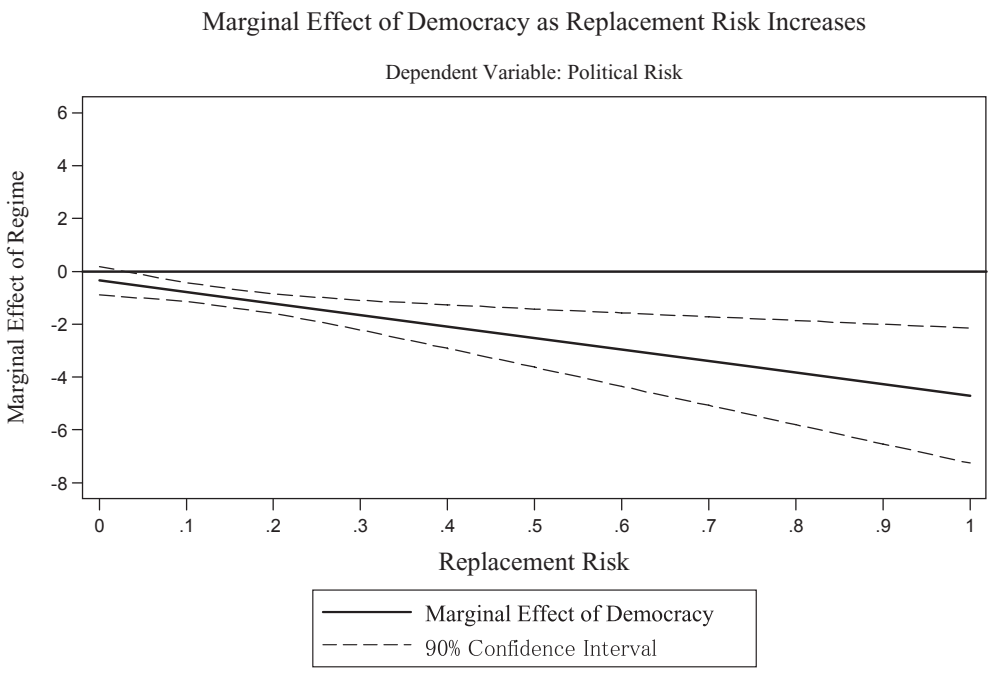


Table A1. Sample Descriptive Statistics

Variable Name	Sample Observations	Mean	Standard Deviation	Minimum	Maximum
Political risk (ONDD risk of expropriation and government action)	137	3.08	1.65	1	7
Replacement risk	137	.17	.15	0	1
Replacement risk (excluding irregular exits)	137	.15	.15	0	1
Democracy	137	.60	.49	0	1
Income per capita (ln)	137	8.80	1.20	5.89	11.20
Economic growth, 2000-05	137	2.74	3.22	–11.97	11.86
Inflation, 2000-05	137	8.48	11.68	–1.34	91.33
Oil income	137	–.26	7.31	–9.21	1.61
Multiparty autocracy	137	.25	.43	0	1
Presidential	137	.59	.49	0	1
Total regime spell years	137	32.34	18.56	1	59
Final leader tenure	136	7.19	1.42	1.10	9.73
OECD dummy	137	.23	.42	0	1

Note: See main text for all variable descriptions and sources.

Table A2. Ordered Probit Results

Ordered Probit Regressions Corresponding to OLS Regressions in:	Table 1, Col 1	Table 2, Col 1	Table 2, Col 3	Table 2, Col 4	Table 1, Col 2	Table 2, Col 4	Table 2, Col 5	Table 2, Col 6
Replacement risk	3.21**	3.57*	5.39***	5.85***	4.97***	6.22***	5.52***	6.48***
	(1.63)	(1.96)	(1.96)	(2.03)	(1.48)	(1.50)	(1.77)	(1.73)
Democracy	−.33	−.24	.36	.50	−.20	−.05	.22	.41
	(.32)	(.33)	(.42)	(.42)	(.36)	(.36)	(.46)	(.45)
Replacement risk (*x*)	−4.37**	−4.28**	−6.06***	−6.37***	−5.77***	−6.45***	−5.96***	−6.59***
	(1.83)	(2.07)	(2.00)	(2.06)	(1.69)	(1.65)	(1.94)	(1.87)
Democracy	−.79***	−.84***	−.57***	−.63***	−.96***	−.96***	−.76***	−.76***
Income per capita (ln)	(.11)	(.10)	(.12)	(.12)	(.14)	(.15)	(.16)	(.18)
Economic growth, 2000-05	−.03	.02	−.06	.00	−.04	−.01	−.05	−.02
	(.04)	(.03)	(.04)	(.04)	(.05)	(.03)	(.05)	(.05)
Inflation, 2000-05	.02	.06***	.02**	.03*	.04	.08***	.03*	.03*
	(.01)	(.02)	(.01)	(.02)	(.02)	(.02)	(.02)	(.02)
Oil income	.03*	.01	.03*	.03*	.02	.00	.02	.02
	(.01)	(.02)	(.02)	(.01)	(.02)	(.02)	(.02)	(.02)
Multiparty autocracy			.28	.07			.01	.21
			(.37)	(.35)			(.45)	(.48)
Multiparty autocracy (*x*)			−.21	.86			3.18	2.63
Replacement risk			(1.72)	(1.72)			(2.22)	(2.33)
Presidential			−.22	−.15			−.04	−.02
			(.26)	(.27)			(.28)	(.28)
Total regime spell years			−.00	.00			.01	.00
			(.01)	(.01)			(.01)	(.01)
Final leader tenure			.15	.21**			.05	.14
			(.09)	(.09)			(.09)	(.09)
OECD dummy			−2.16***	−2.13***			−1.80***	−1.84***
			(.42)	(.43)			(.43)	(.43)
Cut—1	−8.15***	−8.07***	−5.31***	−5.07***	−9.46***	−8.83***	−7.25***	−6.45***
	(1.05)	(.92)	(1.40)	(1.39)	(1.30)	(1.35)	(1.57)	(1.70)
Cut—2	−7.57***	−7.42***	−4.49***	−4.21***	−8.84***	−8.15***	−6.41***	−5.59***
	(1.02)	(.88)	(1.36)	(1.37)	(1.26)	(1.30)	(1.54)	(1.67)
Cut—3	−6.91***	−6.70***	−3.71***	−3.39**	−8.11***	−7.35***	−5.57***	−4.72***
	(1.00)	(.86)	(1.36)	(1.36)	(1.23)	(1.26)	(1.53)	(1.66)
Cut—4	−5.64***	−5.39***	−2.43*	−2.07	−6.55***	−5.71***	−4.03***	−3.13*
	(.94)	(.82)	(1.33)	(1.34)	(1.15)	(1.16)	(1.48)	(1.60)
Cut—5	−4.74***	−4.50***	−1.57	−1.09	−5.74***	−4.85***	−3.25**	−2.22
	(.91)	(.80)	(1.33)	(1.33)	(1.08)	(1.06)	(1.42)	(1.51)
Cut—6	−4.02***	−3.82***	−.89		−5.17***	−4.21***	−2.71*	
	(1.00)	(.90)	(1.40)		(1.23)	(1.19)	(1.56)	
Observations	137	137	136	133	111	111	110	108
LR (chi^2) / Prob > chi^2	126.2 / <.001	133.2 / <.001	139.2 / <.001	127 / <.001	114.1 / <.001	104.6 / <.001	142.4 / <.001	138.3 / <.001

Notes: Ordered probit regression coefficients. Dependent variable is ONDD rating for expropriation risk. Standard errors in parentheses. *** p < .01; ** p < .05; * p < .1.

Table A3: OLS Models, All Turnovers Minus Irregular Exits Measure of *Replacement Risk* (Full Sample)

	Baseline Model	Economic Variables Measured in 2005	All Controls	Drop Highest Political Risk Category
Replacement risk	2.91*	3.13*	2.68	3.49*
	(1.48)	(1.64)	(1.73)	(1.91)
Democracy	–.52*	–.38	–.01	.19
	(.28)	(.28)	(.33)	(.31)
Replacement risk (*x*)	–3.62**	–3.58**	–3.89**	–4.42**
Democracy	(1.56)	(1.66)	(1.68)	(1.83)
Income per capita (ln)	–.84***	–.84***	–.61***	–.63***
	(.09)	(.07)	(.12)	(.11)
Economic growth, 2000-05	–.03	.02	–.06	.01
	(.04)	(.03)	(.04)	(.03)
Inflation, 2000-05	.02	.06***	.02*	.02*
	(.01)	(.02)	(.01)	(.01)
Oil income	.03*	.01	.03**	.03**
	(.01)	(.01)	(.01)	(.01)
Multiparty autocracy			–.05	–.17
			(.34)	(.30)
Multiparty autocracy (*x*)			2.84	3.56**
Replacement risk			(1.72)	(1.58)
Presidential			–.21	–.11
			(.26)	(.25)
Total regime spell years			.00	.00
			(.01)	(.01)
Final leader tenure			.07	.15*
			(.09)	(.08)
OECD dummy			–1.32***	–1.27***
			(.29)	(.28)
Constant	1.79***	1.14***	8.40***	7.57***
	(.79)	(.71)	(1.27)	(1.13)
Observations	137	137	136	133
R-squared	.581	.62	.64	.66

Notes: DV is ONDD rating for expropriation risk. Standard errors in parentheses.
*** p < .01; ** p < .05; * p < .1.

Table A4. Ordered Probit Results, All Turnovers Minus Irregular Exits Measure of *Replacement Risk* (Full Sample)

	Baseline Model	Economic Variables Measured in 2005	All Controls	Drop Highest Political Risk Category
Replacement risk	2.66*	3.05*	2.95*	3.81*
	(1.37)	(1.68)	(1.66)	(2.01)
Democracy	−.50*	−.40	−.06	.09
	(.27)	(.27)	(.35)	(.35)
Replacement risk (x)	−3.64**	−3.66**	−3.84**	−4.47**
Democracy	(1.55)	(1.77)	(1.70)	(1.97)
Income per capita (ln)	−.80***	−.86***	−.62***	−.70***
	(.12)	(.11)	(.13)	(.13)
Economic growth, 2000-05	−.03	.02	−.05	.00
	(.04)	(.03)	(.04)	(.04)
Inflation, 2000-05	.02	.06***	.02*	.03
	(.01)	(.02)	(.01)	(.02)
Oil income	.03*	.01	.03*	.03*
	(.02)	(.02)	(.02)	(.01)
Multiparty autocracy			−.09	−.26
			(.32)	(.30)
Multiparty autocracy (x)			2.84*	3.87**
Replacement risk			(1.70)	(1.68)
Presidential			−.17	−.08
			(.27)	(.28)
Total regime spell years			−.00	−.00
			(.01)	(.01)
Final leader tenure			.10	.17*
			(.09)	(.09)
OECD dummy			−1.99***	−1.96***
			(.42)	(.42)
Cut—1	−8.40***	−8.35***	−6.55***	−6.34***
	(1.07)	(.96)	(1.34)	(1.34)
Cut—2	−7.82***	−7.69***	−5.74***	−5.50***
	(1.04)	(.92)	(1.30)	(1.31)
Cut—3	−7.16***	−6.98***	−4.97***	−4.69***
	(1.02)	(.89)	(1.28)	(1.29)
Cut—4	−5.92***	−5.69***	−3.73***	−3.40***
	(.96)	(.84)	(1.25)	(1.26)
Cut—5	−5.03***	−4.81***	−2.88**	−2.43**
	(.91)	(.80)	(1.22)	(1.22)
Cut—6	−4.33***	−4.14***	−2.21*	
	(1.01)	(.89)	(1.32)	
Observations	137	137	136	133
LR (chi^2) / Prob > chi^2	127.4 / < .001	139.9 / < .001	135.2 / < .001	124.1 / < .001

Notes: Ordered probit regression coefficients. *** p < .01; ** p < .05; * p < .1.

Table A5: Values of *Replacement Risk* Measures for the sample (Autocracies in 2005 in *italics;* see text for details of construction)

Country	All Turnovers	All Turnovers minus Irregular Exits	Country	All Turnovers	All Turnovers minus Irregular Exits	Country	All Turnovers	All Turnovers minus Irregular Exits
Albania	.3571429	.3571429	Greece	.2580645	.2580645	Norway	.2881356	.2881356
Algeria	*.1395349*	*.0930233*	Guatemala	.2631579	.2105263	*Oman*	*0*	*0*
Angola	*.0333333*	*.0333333*	*Guinea*	*.0212766*	*.0212766*	*Pakistan*	*.2142857*	*0*
Argentina	.2272727	.2272727	Guinea-Bissau	.3333333	0	Panama	.25	.25
Armenia	.0714286	.0714286	*Guyana*	*.1025641*	*.1025641*	Papua New Guinea	.300	.300
Australia	.1694915	.1694915	*Haiti*	*.2033898*	*.1016949*	Paraguay	.25	.25
Austria	.1355932	.1355932	Honduras	.2173913	.2173913	Peru	.2	.2
Azerbaijan	*.2142857*	*.1428571*	Hungary	.3333333	.3333333	Philippines	.1578947	.1578947
Bahrain	*.0294118*	*.0294118*	India	.2241379	.2068966	Poland	.125	.125
Bangladesh	.2105263	.1578947	Indonesia	.3333333	.3333333	Portugal	.0689655	.0689655
Belarus	*.0714286*	*.0714286*	*Iran*	*.085*	*.034*	*Qatar*	*.0588235*	*0*
Belgium	.2881356	.2881356	*Iraq*	*.1355932*	*.0847458*	Romania	.4	.4
Benin	.0714286	.0714286	Ireland	.2542373	.2542373	*Russia*	*.0714286*	*.071*
Bolivia	.3043478	.3043478	Israel	.245614	.2280702	*Rwanda*	*.0465116*	*0*
Bosnia and Herzegovina	*.500*	*.500*	Italy	.5084746	.5084746	*Saudi Arabia*	*.0847458*	*.068*
Botswana	*.051*	*.0512821*	Jamaica	.1162791	.1162791	Senegal	0	0
Brazil	.2	.2	Japan	.3728814	.3728814	Sierra Leone	0	.000
Bulgaria	.4	.4	*Jordan*	*.0508475*	*.0338983*	*Singapore*	*.05*	*.05*
Burkina Faso	*.1555556*	*.022*	*Kazakhstan*	*0*	*0*	Slovak Rep.	.167	.167
Burundi	.1290323	.0322581	Kenya	.1428571	.1428571	Slovenia	.2857143	.2857143
Cameroon	*.0222222*	*.0222222*	Korea, Rep.	.1764706	.176	*South Africa*	*.1355932*	*.119*
Canada	.1525424	.1525424	*Kuwait*	*.0681818*	*.0681818*	Spain	.1428571	.1428571
Central African Republic	*.121*	*.061*	*Lao*	*.1304348*	*.087*	Sri Lanka	.2758621	.241
Chile	.1851852	.1481481	Latvia	.6428571	.6428571	*Sudan*	*.1764706*	*.0588235*
China	*.0847458*	*.0677966*	*Lebanon*	*.1666667*	*.1666667*	*Swaziland*	*.0810811*	*.0540541*
Colombia	.2340426	.2340426	*Liberia*	*.1355932*	*.1016949*	Sweden	.1525424	.1355932
Congo, DR	*.067*	*.000*	*Libya*	*.0185185*	*0*	Switzerland	1	1
Congo, Rep.	*.1724138*	*.069*	Lithuania	.2857143	.2857143	*Syria*	*.186*	*.068*
Costa Rica	.2321429	.232	Macedonia	.2857143	.286	*Tanzania*	*.0454545*	*.0454545*
Croatia	.1428571	.1428571	Madagascar	.25	.1666667	Thailand	.3076923	.3076923
Cuba	*.0188679*	*0*	Malawi	.0909091	.0909091	*Togo*	*.0444444*	*0*
Cyprus	.1363636	.1363636	*Malaysia*	*.1041667*	*.1041667*	Trinidad/Tobago	.116	.116
Czech Rep.	.3333333	.333	Mali	.0769231	.0769231	*Tunisia*	*.0408163*	*0*
Denmark	.2372881	.2372881	*Mauritania*	*.0888889*	*0*	Turkey	.3636364	.3181818
Dominican Rep.	.1538462	.154	Mauritius	.1081081	.1081081	*Turkmenistan*	*0*	*0*
Ecuador	.3809524	.3333333	Mexico	0	0	*Uganda*	*.05*	*0*
Egypt	*.068*	*.034*	Moldova	.1428571	.1428571	Ukraine	.0714286	.0714286
El Salvador	.1904762	.190	Mongolia	.0666667	.0666667	*UAE*	*.000*	*.000*
Estonia	.5	.5	*Morocco*	*.0408163*	*.0408163*	United Kingdom	.1864407	.186
Ethiopia	*0*	*0*	*Mozambique*	*.0333333*	*.0333333*	United States	.1694915	.153
Finland	.0677966	.0677966	*Namibia*	*0*	*0*	Uruguay	.6296296	.5925926
France	.1730769	.1730769	Netherlands	.220339	.220339	*Uzbekistan*	*0*	*0*
Gabon	*.0444444*	*.0222222*	New Zealand	.1864407	.186	Venezuela	.1956522	.1956522
Gambia	*.025*	*.000*	Nicaragua	.1428571	.1428571	*Zambia*	*.0487805*	*.0487805*
Georgia	0	0	Niger	0	0	*Zimbabwe*	*0*	*0*
Ghana	.0833333	.0833333	Nigeria	0	0			

About the Author

Matthew D. Fails is an assistant professor of political science at Oakland University in Rochester, Michigan. His research revolves around the political economy of growth and development, with a particular focus on property rights and political risk, the long-run influence of colonialism, natural resource wealth, and authoritarian regimes. His previously published work appears in such outlets as *International Studies Quarterly* and *British Journal of Political Science.*

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