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Authoritarian elections and leadership succession, 1975-2004*

by

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Abstract:**Authoritarian elections and leadership succession,
1975-2004**

Why do non-democratic regimes hold elections they might lose? In this paper, I develop a model in which authoritarian rulers agree to positive levels of electoral risk primarily to gain information that reduces the risk of their violent removal from office via a coup d'état or revolution. Using a comprehensive database documenting how the world's leaders exited from office, I provide evidence that elections help authoritarian regimes regulate succession to their top posts. There is evidence of both regime effects (e.g., leaders of multi-party authoritarian regimes are more likely to exit electorally and less likely to exit violently) and electoral-cycle effects (violent and peaceful exits vary systematically across the electoral cycle in multi-party regimes).

Authoritarian elections and leadership succession, 1975-2004

Why do some authoritarian regimes hold elections? These elections have not been cheap. The Soviets put literally millions of people to work in their elections, exerting real effort to attain near-100% turnout and approval figures (Swearer 1961, 147). Other authoritarian regimes have substantially manipulated their economies in the run-up to elections, including Mexico (Magaloni 2006, ch. 3), Latin America more broadly (Ames 1987), and Egypt (Blaydes 2007). Moreover, in addition to being costly, some authoritarian elections lead directly to the regime's removal from office, as illustrated by the fall of the KANU in Kenya (Magaloni 2006, 39); and other authoritarian elections lead first to fairer ones, and thence to the regime's defeat, as illustrated by the fall of the KMT in Taiwan (Chao and Myers 2000).

The literature offers several reasons why an authoritarian regime would hold elections, despite their cost and riskiness. In this paper, I argue that—in some contexts—elections can reduce asymmetries of information and hence the risk of bargaining failure between contending leaders (cf. Fearon 1995), thereby lowering the probability that the incumbent autocrat will be violently expelled from office. From this perspective, autocrats may commit to elections they might lose, when those elections also produce a substantial enough reduction in their risk of violent removal from office.

If an important reason that autocrats hold elections is to reduce information asymmetries, then various propositions follow about when violent

exits should occur, as a function of regime type and the electoral cycle. I test those propositions for 136 autocratic regimes over the period 1975-2004, finding that (a) peaceful and violent exits vary across regime types as expected; and (b) peaceful and violent exits exhibit systematic variation across the electoral cycle in *multi-party* authoritarian regimes.

Previous literature

Previous explanations of why non-democratic regimes hold elections can be placed under three main headings: elections are ruses intended to produce legitimacy; elections are extorted concessions; and elections are a way to avoid intra-regime and exacerbate extra-regime splits. I shall discuss each possibility in turn.

Among the many who have noted that elections may be ruses are Linz and Schedler. Linz (2000, 34) describes as “electoral authoritarian” those regimes where an electoral “façade” covers authoritarian realities. Schedler (2002a, 37) argues that the rulers of such regimes hope “to reap the fruits of electoral legitimacy without running the risks of democratic uncertainty.” While legitimacy might redound to the *domestic* credit of the regime, it may also confer *international* benefits, as when western donors promise aid in return for democratic improvements (Joseph 1999; Beaulieu and Hyde 2007). Two natural follow-on questions have been explored. First, shouldn’t domestic oppositions be aware that rulers will wish to rig their elections and fight for electoral reform (cf. Schedler 2002b; Beaulieu 2006)? Second, shouldn’t international donors be

aware that rulers will wish to rig their elections and act to limit that option—e.g., by sending teams of election observers (Hyde 2006)?

Among those viewing elections—or fairer elections—as extorted concessions are Acemoglu and Robinson (2006). In their model, electoral concessions are not simply shams intended to dupe domestic or international observers. Instead, concessions involve a real, even if sometimes small, risk of electoral defeat. That said, however, the regime is assumed willing to seize without qualms any opportunity to backtrack on its commitments. Thus, the difference between the concession theorists and the legitimacy theorists might be viewed as relatively small, with the former placing more emphasis on the “unmanageable” portion of risk entailed in electoral concessions and the latter placing more emphasis on the “manageable” portion of risk.

Magaloni (2006, 8-9) argues that authoritarian elections in general “are employed as means to distribute power among lower-level politicians” within the regime and to demonstrate invincibility—both useful in convincing the mass of regime politicians to remain loyal, rather than join the opposition and pose electoral threats. Geddes (2006) makes a similar argument but emphasizes coercive (non-electoral) threats. Magaloni also argues that authoritarian elections can help to keep the opposition divided, by inducing portions of it to compete in elections. Her argument here is similar to those of Gandhi and Przeworski (2001) and Lust-Okar (2005).

Electoral risk and electoral information

My view of non-democratic elections focuses on the potential trade-off between risk and information. I begin with the common premise that autocrats face endemic informational problems. Even when they know who threatens their continued rule, they may not have complete information about their rival and hence may not know how much they need to offer in order to deter a violent attempt to seize power. Thus, autocrats may run the risks entailed in holding elections, if those elections reveal enough about their rival's capacity to mobilize electoral (and, by extension, military) support.

The canonical example of informative elections would be those once held in the city-state of Sparta, in which the supporters of a particular candidate voted by yelling as loudly as they could, while clashing their spears against their shields (Staveley 1972). The utility of such elections in gauging the fighting spirit and ability of a candidate's supporters was obvious and, with a commonly observed measure of the two sides' strengths, actual recourse to violence should (per Fearon 1995) have been less likely.

The thesis advanced here, put bluntly, is that autocrats agree to positive levels of electoral risk primarily to gain information that reduces the chance of their violent removal from office via a coup d'état or revolution.¹ I thus share Geddes' (2006) focus on rulers' concern for their personal safety (see also Tullock 1987; Haber, Razo and Maurer 2003).

¹ One might interpret this as another way of saying that non-democratic rulers hold elections in order to increase their legitimacy. But note that legitimacy is usually thought of as having broader effects than the two identified in the text. For example, more legitimate rulers can expect their taxes to be paid and their laws to be obeyed. Yet, neither of these effects is highlighted in the model. Thus, I don't view it as similar to the legitimacy theorists.

A model of authoritarian elections

To develop the informational theory of authoritarian elections just suggested, consider an autocrat (player A) and a potential leadership rival (player B) who bargain over the division of spoils from the regime. The rival might be either an intra-regime figure (e.g., Anwar Ibrahim in Malaysia) or an opposition figure (e.g., Morgan Tsvangirai in Zimbabwe). The spoils are attached to a set of high offices that can be distributed between the players. As autocratic governments often intrude well into the private sector, the high offices may include the chief executive positions of some of the country's major business firms, as well as more obviously political posts.

The two players derive bargaining power from three sources familiar from the literature (cf. Muthoo 1999): their relative patience; their respective "inside options" (or the flows of utility they receive while bargaining, before an agreement is reached); and their respective "outside options" (here, their expected utilities if one side initiates a violent struggle for power, or "war"). As I am relatively uninterested in the role of patience, I assume the autocrat's and rival's discount rates are equal: $r_A = r_B = r$.

To describe the players' inside options, suppose that the state of the world (on which more later) is ω . If the players reach agreement at time $t\Delta$ ($t = 0, 1, 2, \dots, \Delta > 0$) on a partition that gives player j offices controlling spoils x_j , then j 's payoff is

$$\int_0^{t\Delta} g_{j\omega} \exp[-rs] ds + x_j \exp[-rt\Delta].$$

The term $x_j \exp[-rt\Delta]$ represents j 's discounted utility from x_j . The first term captures the notion that, until agreement is reached, player j obtains a flow of utility at rate $g_{j\omega} \geq 0$.

If the players perpetually disagree, then they receive their “impasse” payoffs, $g_{A\omega}/r$ and $g_{B\omega}/r$. Implicitly, the two sides cooperate at a low level before agreement is reached, which reduces the flow of spoils from the offices each controls. After agreement is reached, they cooperate at a higher level, so that the total value of all spoils increases to $\pi > g_{A\omega}/r + g_{B\omega}/r$. Thus, there are gains to be had (*viz.*, $\pi - g_{A\omega}/r - g_{B\omega}/r$) by reaching agreement.

The two players also have the “outside” option of seeking to seize all the offices by violence. Player j 's expected utility from war in state ω is $w_{j\omega} = p_{j\omega}\pi - \gamma_j$, where $p_{j\omega}$ is j 's probability of winning in state ω and γ_j is his cost of fighting.

If the state of the world ω is common knowledge, then the players play a standard alternating-offers bargaining game with both inside and outside options (Muthoo 1999, ch. 6), which I shall designate by Γ_ω . Assuming that the payoff from war is not too high for either player,² in the limit as $\Delta \rightarrow 0$ the unique subgame perfect equilibrium payoffs in Γ_ω to players A and B respectively converge to (cf. Muthoo 1999, p. 141):

$$Q_{A\omega} = \frac{g_{A\omega}}{r} + \frac{1}{2} \left[\pi - \frac{g_{A\omega}}{r} - \frac{g_{B\omega}}{r} \right]$$

$$Q_{B\omega} = \frac{g_{B\omega}}{r} + \frac{1}{2} \left[\pi - \frac{g_{A\omega}}{r} - \frac{g_{B\omega}}{r} \right]$$

² Specifically, assume $w_{j\omega} \leq Q_{j\omega}$ for $j=A, B$, where $Q_{j\omega}$ is defined in the text.

Thus, the equilibrium agreement gives each player a portion of the spoils equal to what she could obtain by perpetual disagreement, and then splits the remaining spoils equally.

Note that a militarily weak rival (i.e., one with very little chance of winning an armed conflict) may still be able to secure a significant share of the total spoils. For example, if the autocrat's flow utility ($g_{A\omega}$) is low—perhaps because the rival's followers participate in work slow-downs, general strikes, boycotts, or various forms of civil disobedience during negotiations—then the rival can secure a substantial share. In other words, the rival's bargaining leverage depends not just on how large a military threat he can pose but also on how much he can depress the value of the autocrat's spoils, by withholding cooperation.

If the story were to stop here, there would be no reason to hold an election. Because they have complete information, the autocrat and his rival will reach agreement immediately (in equilibrium).

There are two kinds of asymmetric information that potentially complicate bargaining. First, the autocrat may possess information that his rival lacks. For example, Boix and Svolik (2008) consider a model in which the rival is uncertain about the total size of the spoils to be divided. Second, the rival may possess information that the autocrat lacks.

In general, both sorts of informational asymmetries may exist. However, to clarify how different informational challenges affect bargaining, it helps to take them one at a time. Here, I focus on how private information held by the rival can affect the autocrat's decision about what kind of elections, if any, to hold.

To clarify the particular informational issue on which I wish to focus, suppose the autocrat's military position relative to his rival is subject to stochastic shocks. In particular, the autocrat's chance of winning a war is higher in the "good" state of the world ($\omega=1$) and lower in the "bad" state ($\omega=0$): $p_{A1} > p_{A0}$. The rival knows the true state but the autocrat knows only that the bad state arises with probability q (and the good with probability $1-q$).

Why would the rival, but not the autocrat, know that the military balance of power has shifted? One interpretation, following Fearon (1995), is that the rival sometimes acquires resources that affect his military strength but whose value would deteriorate were the autocrat to learn their existence or location. Another interpretation is that the autocrat suffers from the "dictator's dilemma" (Wintrobe 1998): because rational citizens fear punishment for expressing any criticism of the autocrat, they conceal their true opinions, especially from members of the regime. Thus, B may be better positioned than A to observe whether A's popular support remains stable (in state 1) or has eroded (in state 0).

Facing uncertainty about his true probability of winning a war, the autocrat must decide whether or not to hold elections. In the simplest cases, the autocrat is a president (or prime minister) and decides whether to hold presidential (or parliamentary) elections. However, even kings, junta leaders, and presidents-for-life may find that their ability to stay in office depends, de facto if not de jure, on the outcome of national legislative elections.

If the autocrat chooses *not* to hold elections, he faces no risk of losing office electorally. However, he must make an offer regarding how to divide the

spoils without knowing the true state. Moreover, both players understand that the rival cannot credibly communicate the true state to the autocrat (since he has every incentive to report that the autocrat's support has eroded). Thus, the autocrat must either make such a generous offer that the challenger will accept it, regardless of what the true state is (call this his *safe* offer); or make a less generous offer that will be accepted only in the good state. The latter offer (his *risky* offer) entails running a positive risk of war and, hence, a positive risk of being removed violently from office.

If the autocrat chooses to hold an election, he must then decide how fair it should be. How many parties will be allowed to compete? How honest and independent will the electoral administration be? I represent the autocrat's various choices regarding the fairness of the electoral process by a single parameter, $\alpha \in [0, 1]$.

I interpret choosing $\alpha = 0$ as deciding to hold single-party elections; and choosing $\alpha > 0$ as deciding to hold multi-party elections. A very small positive α corresponds to elections in which at least one opposition party can legally participate but the outcome is rigged heavily in the incumbent's favor. As α increases toward 1, electoral administration becomes more and more honest.³

How fair the election is affects the rival's probability of winning the election. I let $L_\omega(\alpha)$ denote the rival's probability of winning in state ω , given α , and assume that one-party elections ensure the autocrat's electoral victory ($L_\omega(0)$

³ The autocrat cannot simply announce a particular value of α . While $\alpha = 0$ is immediately credible, to make $\alpha > 0$ credible implicitly requires the autocrat to take actions—e.g., setting up an independent electoral agency, inviting election monitors, and the like—that assure the rival that the autocrat cannot costlessly renege on his commitment. I do not model these actions separately.

= 0 for all ω); and that the rival's probability of winning does not decrease as the electoral process becomes fairer ($\frac{\partial L_{\omega}(\alpha)}{\partial \alpha} \geq 0$).

Once the autocrat has offered to hold an election, the rival can either reject the offer (and seek power by violence) or accept it. If the rival accepts, then elections are held. It costs the autocrat c_A to campaign in them, while it costs the rival c_B to campaign.⁴

Holding an election may help to clarify the payoffs that the autocrat and his rival would get, were violence to erupt. The official report of votes cast is not necessarily informative in this regard, as it can be *very* predictable in one-party elections and manipulated in multi-party elections. However, both sides can observe what happens during the campaign. If multi-party competition is legal, both can observe each other's campaign rallies. Even if only one party is allowed to campaign, both can observe whether the campaign passes with or without unusual displays of dissent. For example, they can observe whether attendance at the autocrat's rallies is poorer than expected, whether illegal protests erupt, and whether the crowds at the polling stations are smaller than expected.⁵

⁴ I focus on the simplest case in which these costs do not vary with α . The basic results hold if one instead makes the following two mild assumptions. First, both side's campaigning cost weakly increases with α . Second, the rival's expected payoff from an election increases as α increases (so the increased chance at winning outweighs the increased cost).

⁵ The fact that attendance at the autocrat's campaign rallies and at the polls on election day are both publicly observable (at least locally) means that poorer-than-expected attendance at either unavoidably signals a one-party regime's unpopularity or debility. The Soviet reaction to this unavoidability was to devote considerable effort to ensuring consistently high participation. Their effort suggests they saw a positive probability of a signal of debility being sent and worked to avoid it actually being sent. This much is consistent with the current model.

It is possible that no election, even a completely free and fair one, will be informative. For example, if the rival is a military leader with no popular following, his ability to mobilize supporters during an election will reveal little about his ability to mobilize troops to storm the presidential palace. On the other hand, if the rival's military potential derives largely from his ability to mobilize the populace, then election campaigns may be informative, even if the electoral outcome is completely rigged.

To capture the difference between rivals who possess and those who lack popular backing, I assume that each is characterized by a parameter $\bar{\alpha} \geq 0$. If the autocrat offers a relatively unfair election ($\alpha < \bar{\alpha}$), it will be uninformative. But a sufficiently fair election ($\alpha \geq \bar{\alpha}$) will be informative, in the sense that the true state of the world will become common knowledge after the election. A rival with negligible popular backing will have $\bar{\alpha} > 1$, ensuring that $\alpha < \bar{\alpha}$ and hence that elections will be uninformative. A rival with significant popular backing will have $\bar{\alpha} \leq 1$, meaning that sufficiently fair elections can be revealing.

If the autocrat loses the election, his bargaining position will deteriorate to some extent (indexed by an exogenous parameter, λ). The notion is that losing an election may have inconvenient legal consequences; may generate public pressure to step down; and may help opposition forces to coordinate. Thus, the flow utility that the autocrat derives from the offices currently in his possession and his probability of winning a military contest will both be lowered, when he loses an election—although possibly to a trivial extent.

The autocrat has no incentive to offer uninformative elections, as they cost something to hold and participate in and offer no return. After an informative election, whether or not A has won the election (i.e., been officially declared the victor) and the true state of the world both become common knowledge, and A and B then bargain over the division of spoils. If A wins the election, and the state is revealed to be ω , then the bargaining game Γ_{ω} ensues, and the two players receive their equilibrium payoffs— $Q_{A\omega}$ and $Q_{B\omega}$, respectively.

If A loses the election, I do not assume that he has internalized democratic norms which induce him to step down. Nor do I assume that he faces overwhelming public pressure to which he must necessarily bow. However, the combination of public pressure and a better military position for his rival may so erode the autocrat's bargaining position, that he cannot continue to take the top prize in the polity and avoid war. In this case, he will step down.

The model just outlined generates predictions concerning what sort of elections, if any, an autocrat will choose to hold.

Proposition 1: In equilibrium, the autocrat's choice of electoral regime (no elections, one-party elections, multi-party elections) is as follows:

(A) If *no* election will both reveal the rival's military strength and be acceptable to the rival, then the autocrat holds no elections.

(B) If *some* election(s) will both reveal the rival's military strength and be acceptable to the rival, then:

(1) If the risk of the “bad” state occurring is small, the autocrat chooses to hold no elections and make a risky offer.

(2) If the risk of the “bad” state occurring is intermediate, the autocrat chooses (i) to hold one-party elections, when the rival’s war payoff is small relative to his payoff from negotiation, in state 0; and (ii) to hold multi-party elections, otherwise.

(3) If the risk of the “bad” state is high, the autocrat chooses to hold no elections and make a safe offer.

Proof: See appendix 1.

Part (A) of Proposition 1 resonates to some extent with the notion of a coup trap (Londregan and Poole 1990). If the autocrat’s main rival is electorally weak, then elections will not help resolve the autocrat’s uncertainty. The only mechanism for changing leaders in such cases is violence; and one expects a sequence of leaders, all of whom come to power by violence.

Part (B) of the proposition shows, that when elections are informative, they may or may not be offered. When they are offered, they can lie anywhere along a continuum from completely rigged to free and fair—with fairer elections offered to rivals who pose a bigger military threat.

Because I have no operational measures of the key independent variables, I do not pursue empirical investigation of Proposition 1 here. However, the model also generates predictions about how the autocrat exits office as a function of the electoral regime that he chooses, as I discuss in the next section.

Predictions: Regime effects

In the model outlined above, autocrats can exit office in two basic ways. First, they can be expelled pursuant to armed conflict (a violent exit). Second, they can decide to leave office without an overt armed conflict but with such a possibility influencing their decision (a peaceful exit).

Table 1 displays the autocrat's theoretical probabilities of violent and non-violent exit, as a function of whether he (in equilibrium) offers no elections, single-party elections, or multi-party elections. As can be seen, violent exits emerge in equilibrium only when the autocrat holds no elections, and peaceful exits emerge in equilibrium only when he holds multi-party elections. The single-party equilibrium has the very attractive feature—from the autocrat's perspective—of exposing him to no risk of either violent or electoral removal.

Table 1 about here.

This attractive feature notwithstanding, it is important to note that the theory does *not* predict that every autocrat will hold single-party elections. An autocrat will offer single-party elections only to militarily weak rivals who he knows will accept them. When the autocrat foresees that the rival would—in the “bad” state of the world—reject single-party elections and resort to violence, he prefers either to make a non-electoral offer or to offer multi-party elections (which his rival has some chance of winning).

What the model *does* predict is that electoral and violent exits should vary with the electoral nature of the regime. In the no-election regimes, leaders should run the largest risk of violent exit and a nil risk of electoral exit. In the single-party regimes, leaders should run nil risks of either violent or electoral exit.

Finally, in multi-party regimes, leaders should run a nil risk of violent expulsion and the largest risk of electoral exit.

There may of course be other factors producing violent exits, beyond the informational asymmetries highlighted in the model. I assume that these factors generate some independent baseline level of violent exit. Thus, the 0s entered in Table 1 in the column corresponding to violent exit mean that there is a *nil increment* over the baseline level, not that the overall risk of violent exit is literally zero. Similarly, I interpret the 0s referring to peaceful exit in Table 1 to mean that the factors highlighted in the model produce a nil increment over a baseline level of peaceful exit generated by factors not included in the model.

Note that the predictions in Table 1 do not follow if one views authoritarian elections as primarily a means to distribute rewards among lower-level figures in the regime (per Magaloni 2006). If elections serve to distribute resources within the regime, then there would never be any reason to hold multi-party elections; nor would there be any reason to expect the particular pattern of peaceful and violent exits displayed in Table 1.

Data

To test the hypotheses advanced above, I use the Archigos dataset, which provides information on how the world's top leaders have exited office over the period 1875-2004.⁶ The unit of analysis is a country-year-leader. The main dependent variable is trichotomous, equal to 0 if the leader continues in power; equal to 1 if the leader exits office peacefully; and equal to 2 if the leader exits

⁶ For information on the Archigos dataset, see mail.rochester.edu/~hgoemans/data.htm.

office violently. I provide details of the coding of this and other variables in appendix 2.

An important preliminary point is that violent exits yield much lower expected payoffs than peaceful exits. As Goemans (2008) shows, 80% of leaders who violently exit office subsequently suffer exile, jail or death, versus 7.5% of leaders who peacefully exit office.⁷ An autocrat may thus be willing to take actions that will increase the probability of a peaceful exit, if those same actions will also decrease the probability of a violent exit.

I identify each country-year as either democratic or autocratic, following Hadenius and Teorell (2007).⁸ I exclude strife-torn country-years, as it is not surprising to find violent exits during civil wars, open rebellions or foreign occupations.⁹ I then code each remaining autocratic country-year as either non-electoral, one-party or multi-party, using Keefer (2005). In particular, I use the indicator variables *MULTIPARTY* (equal to 1 for multiparty authoritarian regimes) and *ONEPARTY* (equal to 1 for non-party and one-party authoritarian regimes). My analysis is restricted to 1975-2004, the years for which the primary databases on which I rely provide full information.

Results: Regime effects

Table 2 displays the percentage of country-year-leaders that fall into the three categories of continuation in office, peaceful exit and violent exit, broken

⁷ Goemans, following the coding used in the Archigos dataset, classifies exits as either “irregular” or “regular.” I use the same coding but refer to “regular” exits as “peaceful” and “irregular” exits as “violent.”

⁸ The results are not significantly different, if one uses the Przeworski et al. 2000 approach to identifying democratic country-years.

⁹ I code a country-year as “strife-torn” if it falls in any of the following of Hadenius and Teorell’s categories: rebel regime; civil war; occupation; transitional; multiparty-occupied.

down by type of authoritarian regime (non-electoral, no-party or one-party elections, multi-party elections). As can be seen, the probability of violent exit, conditional on exit, is highest in the non-electoral autocracies, lower in the no- and one-party autocracies, and lowest in the multi-party autocracies.

Table 2 about here

To further explore regime effects, Table 3 displays a multinomial logit analysis of autocratic leaders' fates. The baseline fate is survival (or continuation in office). The analysis simultaneously examines what predicts peaceful exits rather than continuation, and what predicts violent exits rather than continuation. Following Carter and Signorino (2007), I include a cubic polynomial of the time in office of each leader, to allow for temporal dependence.¹⁰ I also include as control variables the real GDP per capita in each country-year (*GDP*) and a dummy variable (*CONFLICT*) identifying country-years with significant internal conflict (Gleditsch 2002; Gleditsch et al. 2002). Model 1 includes regional fixed effects and examines the full sample of 2,989 country-year-leaders. Model 2 focuses on the 2,082 observations from countries experiencing at least two different regime types during the period 1975-2004 and includes country fixed effects.

Table 3 about here

Considering the control variables first, note that leaders of richer countries are less likely to exit violently, all else equal; and that the presence of significant

¹⁰ Beck, Katz and Tucker (1998) note that time-series/cross-sectional data with a binary dependent variable are grouped duration data and show that, when appropriate time dummies are included, ordinary logit analysis is essentially equivalent to the Cox proportional hazards model. Carter and Signorino (2007) argue in favor of using a cubic polynomial in time, rather than either time dummies or splines.

internal strife raises the probability of a violent exit in the affected country-year. Turning now to the independent variables of primary concern, note that in Model 1 leaders of multi-party regimes are significantly more likely to exit peacefully (as opposed to continuing in office), and significantly less likely to exit violently (as opposed to continuing in office), than are leaders of non-electoral regimes. Thus, leaders of multi-party regimes are significantly less likely to exit violently, conditional on exit, than their counterparts in non-electoral regimes.

This latter finding is preserved in Model 2. Controlling for whatever durable characteristics of a country expose its leaders to risks of peaceful and violent exit, leaders of multi-party regimes are significantly less likely to exit violently, conditional on exit, than their counterparts in non-electoral regimes. Thus, autocrats who choose to hold multi-party elections, rather than none at all, appear to be accepting higher risks of electoral exit in exchange for lower risks of violent exit.

Substantively, the size of the trade-off is not trivial. For example, in Model 1, an autocrat hypothetically moving from a non-electoral to a multi-party regime (in a Latin American country with a GDP per capita of \$2,000) would see an increase of .08 in his probability of peaceful exit and a reduction of .07 in his probability of violent expulsion.¹¹

Turning now to leaders of one-party regimes, one can see (Model 1) that they are insignificantly more likely to exit peacefully and significantly less likely to exit violently, than are leaders of non-electoral regimes. In Model 2, with country fixed effects, the same pattern holds but neither effect is significant.

¹¹ I assume that the leader in question is in his first year in office; and that there is no internal conflict.

All told, these results provide evidence for essentially the pattern predicted in Table 1. First, leaders of non-electoral regimes leave office violently significantly more often than do leaders of one- and multi-party regimes. Second, leaders of multi-party regimes leave office peacefully significantly more often than do leaders of non-electoral and one-party regimes. Third, the conditional probability of violent exit declines as expected from non-electoral regimes, to one-party regimes, to multi-party regimes.¹²

It is worth stressing that the regime effects documented in Table 3 are not ordinary causal effects. The theoretical argument is not that one could randomly assign some non-electoral regime to a one-party “treatment” and expect violent exits to decline. Rather, the argument is that, if regime type is chosen in good part for the reasons suggested here, then one would expect the exit patterns predicted in Table 1 and documented in Table 3. On a somewhat related methodological front, I discuss the possibility of simultaneity bias in appendix 3.

Predictions: Electoral cycle effects

In addition to comparing the incidence of violent and electoral exits across regime types, I shall also take another approach to measuring an autocrat’s electoral risk, based on his temporal proximity to an actual election. In particular, I shall code variables indicating whether a particular year is an election year or a post-election (honeymoon) year; and also indicating how long it is to the next scheduled election. With these variables, one can investigate two plausible

¹² If one believes that foreign aid both induces leaders to hold elections and to step down if they lose them, then one might argue that foreign aid could explain part of the pattern documented in Table 3. I should note, however, that if one includes a measure of mean foreign aid received (from the World Development Indicators database), the new variable is completely insignificant and none of the previous results are significantly affected.

conjectures about how exits should vary across the electoral cycle, if the informational theory is valid.

First, if elections reveal information about the contestants' payoffs from violent contests for power, then there should be a *honeymoon effect*: violent ousters should be less common in the aftermath of an election. For, the incumbent and challenger are less likely to disagree about their respective chances in a violent struggle after the election than before and, hence, more likely to settle up without fighting.

One can cite anecdotes that both contradict and support the honeymoon prediction. In the contradictory column are coups launched by the losing side immediately after an election—e.g., those in Sierra Leone in 1967 or Dahomey in 1968. In the supportive column, consider Samudavanija's (1982, p. 2) characterization of the cycle of coups in Thai society prior to the 1980s:

The cycle comprises six recurring phases, namely (1) a military coup, followed by (2) the promulgation of a new or resurrected constitution, followed by (3) a period of politicking and elections, followed by (4) a "honeymoon" period of cooperation and all sorts of new legislation, followed by (5) bitter arguing and stagnation among the governmental elite, followed by (6) a military coup d'etat to restore order and stability.

Below, I conduct a more systematic examination of the honeymoon effect.

Second, if elections offer an alternative route to power for those who might otherwise launch a coup or revolt, then there should be an *electoral distance*

effect: a smaller expected time until the next election should mean a smaller incentive for a coup or revolution. A faction that has new private information about its own prowess can either launch a coup immediately, in an effort to capitalize on its strength, or wait for the next election to reveal that strength, and then bargain with the incumbent autocrat for an appropriate increase in its share of the regime rents. The closer is the next election, the more attractive will be the “wait and renegotiate” strategy.

Note that leaders’ exit risks during election years are ambiguous. On the one hand, autocrats should only hold elections when they face high enough uncertainty, and such uncertainty raises the risk of both kinds of exit. On the other hand, elections themselves should reveal information and lower the risk of violence. Thus, it is hard to say whether election years will have lower rates of violent exit than pre-election years, since we may be comparing low-uncertainty pre-election years to high-uncertainty election years. One prediction we can articulate with more confidence, is that violent exits in election years should occur before the election, while peaceful exits in election years should occur afterwards.

Results: Electoral cycle effects

In established democracies, violent exits are so rare that there are no electoral-cycle effects visible. In autocracies, on the other hand, violent exits are more common and thus it is more plausible that electoral-cycle effects might be identifiable. In this section, I investigate such effects.

Table 4 displays a multinomial logit analysis of leaders' fates. As my interest centers on electoral-cycle effects, I focus on leaders of regimes that hold elections. To identify each country-year's location in the electoral cycle, I include two variables: a dummy variable (*ELECTION*) identifying years in which a national election is held; and a dummy variable (*HONEYMOON*) identifying non-election years that occur just after an election year. The excluded category of years is thus a year that is neither an election nor a honeymoon year.

In addition to identifying election and honeymoon years, I also include a variable, *NEXTELEC*, equal to the *expected* number of years until the next election will be held. This variable is coded at the level of a country-year-leader and accordingly can vary within a given country-year. For example, if the leader from January to May in a particular country-year did not intend to hold elections at all, he would be given the maximum value of *NEXTELEC* = 5; if his successor took office in May, declared an intention to hold elections in one year (and in fact did so), he would be given the value *NEXTELEC* = 1.¹³

Table 4 about here

The main results in Table 4 pertaining to multi-party autocracies are two. First, peaceful exits are more likely and violent exits less likely in honeymoon years. Although each effect separately falls short of statistical significance, the joint effect is significant. That is, the conditional probability of a violent exit is significantly lower in honeymoon years. Moreover, the effect is substantively important. For example, in a multi-party autocracy with a GDP per capita of \$2,000 (slightly below the median in the sample), the probability of a violent exit,

¹³ Details on the coding of *NEXTELEC* are given in appendix 2.

conditional on exit, is .206 in a non-honeymoon year but .016 in a honeymoon year.¹⁴

Further evidence of a honeymoon effect is that, in election years, violent exits tend to occur before the election is held, while peaceful exits occur afterward. More specifically, of the 35 exits occurring in election years before the election, 15 (43%) were violent. In contrast, of the 29 exits occurring in election years after the election, 6 (21%) were violent. The difference in proportions is significant in a one-tailed test.¹⁵

A second pattern in multi-party autocracies can be seen in Figure 1, which displays the probabilities of violent and peaceful exit as a function of the years to the next election (assuming a GDP per capita of \$2,000 and no honeymoon years). When the next election is five or more years distant, the probability of a violent exit more than doubles that of a peaceful exit (.048 versus .021). As the next election gets closer and closer, the probability of a violent exit declines slowly, while the probability of a peaceful exit inclines more sharply. One year shy of the next election, a peaceful exit is over 33 times more likely than a violent exit (.104 versus .003). Election years themselves bring a slight resurgence of the risk of violent exit, together with a large increase in the risk of peaceful exit.

The results in Table 4 pertaining to one-party autocracies are significantly different. First, the patterns in honeymoon years are opposite to those for multi-

¹⁴ I assume that it is three years to the next election in both cases.

¹⁵ Moreover, note that some violent exits occur in years in which the incumbent had scheduled elections, which were then suspended by the new entrant. These years are not coded as election years and so do not enter the analysis described in the text. However, we might reasonably classify the first portion of such years as election years, in which case a certain number of additional violent exits before elections in election years would enter the analysis and strengthen the relationship reported in the text.

party regimes: peaceful exits (insignificantly) decline and violent exits (insignificantly) incline. Thus, the conditional probability of a violent exit is not significantly less in honeymoon years. Second, as the next election becomes more distant, violent exits become relatively more common, but peaceful exits are unaffected. The conditional probability of a violent exit is not significantly related to electoral distance. Third, in election years, violent exits become more common but, again, peaceful exits are unaffected. *All told, peaceful exits in one-party regimes are simply very rare and show no tendency to occur more often at any particular point in the electoral cycle.* This makes sense given that it is hard to lose a one-party election. Consistent with the notion that elections may serve as focal points for those seeking to oust the incumbent autocrat (cf. Fearon 2006), violent exits are more likely in election years (and also when the next election is far away, meaning that waiting for a “focal boost” is not attractive).

Finally, richer autocracies (i.e., those with higher GDP per capita) have (significantly) less frequent violent exits and (insignificantly) more frequent peaceful exits, in comparison to poorer autocracies. The conditional probability of a violent exit thus declines significantly as a country becomes richer. For example, consider a non-election non-honeymoon year that is at least five years from the next election. If the country in question is at the third quartile of GDP per capita (\$5,027), the leader's conditional probability of violent exit is .51, versus .75 if the country is at the first quartile (\$1,110).¹⁶

¹⁶ The coding of the dependent variable takes an exit to be violent if Archigos codes it as “irregular” and peaceful if Archigos codes it as “regular.” I have also tried an alternative coding of the dependent variable, in which “regular” exits that lead to exile, jail or death, are also considered violent, finding similar patterns.

Conclusion

Systematic investigation of how authoritarian elections regulate leadership succession is scarce, presumably because such elections are so often shams that it is hard to see how they could have any real effects. In this paper, I begin by envisioning a “predatory” autocrat who bargains with a rival over the division of spoils from the regime. I argue that the typical autocrat is uncertain about how much he must offer his rival to deter a violent attempt to seize power; and that elections can help ameliorate this uncertainty. Thus, autocrats sometimes hold elections in order to reduce uncertainty and thus the risk of bargaining failure (which entails a risk of their violent expulsion from power).

Several features of the argument are worth highlighting. First, I do *not* assume that autocrats conduct fair elections. Thus, elections are informative, not because of their reported results, but because they provide an opportunity for the two sides to observe each other mobilizing their respective supporters. When multi-party competition is legal, the two sides can observe each other’s campaign rallies. Even in one-party regimes, however, both sides can observe that the autocrat’s rallies are poorly attended, or that illegal protests of various kinds occur, or that the numbers going to the polls on election day appear to be low.

Second, I do *not* assume that the autocrat, should he lose an election, necessarily relinquishes office. I merely assume that losing an election erodes the autocrat’s bargaining position to some extent, which may or may not be enough to force him to step down.

Escribà-Folch (2007) and Wright and Escribà-Folch (2008) conduct finer-grained analyses that differentiate between exits followed by death/imprisonment, exits followed by exile, and exits followed by neither.

Thus, the elections envisioned here are not the fair and legally binding contests familiar from the literature on developed democracies. They are preliminary skirmishes that help to reveal the military lay of the land and thus promote a negotiated settlement. That the autocrat can tilt the playing field in his favor does not necessarily remove their utility, because he must make a good enough electoral offer to induce his rival to participate in the elections, rather than seek power by violence. Thus, increasingly fair elections are here viewed as concessions offered by autocrats in the face of increasing uncertainty and military threat.

More important than these predictions about what kind of elections autocrats will hold (if any), are the model's empirically testable predictions about how autocrats should leave office, as a function of regime type. In particular, I show that (1) leaders of one- and multi-party regimes should be violently expelled from office at the same low baseline rate, while leaders of non-electoral regimes should suffer this fate significantly more often; and (2) leaders of non-electoral and one-party regimes should be peacefully expelled from office at the same low baseline rate, while leaders of multi-party regimes should suffer this fate significantly more often.

My empirical analyses, based on a comprehensive database describing how the world's leaders have left office, document precisely the pattern of peaceful and violent exits predicted by the model. Looking more specifically at how violent and peaceful exits vary across the electoral cycle in *multi-party* autocracies, I find evidence for both a honeymoon effect (fewer violent exits after

elections) and an electoral distance effect (more violent exits if the next scheduled election is more distant).

All told, it seems that authoritarian elections systematically affect autocrats' relative risks of peaceful and violent exit, even though they are rigged and even though most autocrats view electoral defeat—should it surprisingly emerge from one of their rigged elections—as merely a bargaining set-back. That the fairness of the electoral process can be set to any of a wide range of values, from utterly rigged to completely fair, actually helps the autocrat find an electoral offer that he is willing to make and the rival is willing to accept.

The model suggests a path-dependent story about democratization. Once an electoral process is established, each new generation of competitors for power have an incentive to invest in the ability to mobilize popular support and win elections. As the military power of the rival(s) increases, the incumbent offers fairer and fairer elections, and is more and more likely to step down after an electoral defeat.

Appendix 1

The game begins with A choosing not to hold elections, in which case the non-electoral subgame, Γ_{noelec} , ensues; or choosing to hold elections, in which case the electoral subgame, Γ_{elec} , ensues. B knows the true state of the world, ω , but A knows only that the state is $\omega=0$ with probability q and $\omega=1$ with probability $1-q$. I make the following assumptions: (A1) $Q_{j\omega} \geq w_{j\omega}$ for $j=A,B$ and $\omega=0,1$. (A2) $p_{B0} > p_{B1}$. (A3) $g_{B0} = g_{B1} = g_B$ and $g_{A0} = g_{A1} = g_A$. (A4) $Q_{B1} - c_B > w_{B1}$. (A5) $w_{A\omega} > g_A/r$ or $w_{B\omega} > g_B/r$ for $\omega=0,1$.

The non-electoral subgame, Γ_{noelec}

If the autocrat chooses to hold no elections, then he makes a direct offer, (x_A, x_B) , without knowing what the true state of the world is. If the rival accepts the offer, then the spoils are divided as agreed. If the rival rejects the offer, war will result (in light of A5).

An important initial observation to make is that the autocrat will make an offer that either just suffices to deter war in state 1, or just suffices to deter war in state 0—since any offer that gives B more than necessary to deter war in state ω will give A a lower payoff than the offer that just deters war in state ω . Consider each possible offer in turn.

The offer that just suffices to deter war in state 1 is (x_{A1}, x_{B1}) , where $x_{A1} = \pi - w_{B1}$ and $x_{B1} = w_{B1}$. B (weakly) prefers to accept this offer in state 1, rather than reject it and initiate a war; and will reject this offer in state 0 and initiate a war

(since $w_{B0} > w_{B1}$). The expected payoff to A from offering (x_{A1}, x_{B1}) , is thus

$$V_A(x_{A1}, x_{B1}) = qw_{A0} + (1-q)(\pi - w_{B1}).$$

The offer that just suffices to deter war in state 0 is (x_{A0}, x_{B0}) , where $x_{A0} = \pi - w_{B0}$ and $x_{B0} = w_{B0}$. The expected payoff to A from making this offer is

$$V_A(x_{A0}, x_{B0}) = \pi - w_{B0}.$$

The autocrat will prefer the risky offer, (x_{A1}, x_{B1}) , to the safe offer, (x_{A0}, x_{B0}) , when $V_A(x_{A1}, x_{B1}) > V_A(x_{A0}, x_{B0})$ or, equivalently, when the following condition is satisfied:

$$q < \frac{w_{B0} - w_{B1}}{\gamma_A + \gamma_B + w_{B0} - w_{B1}} \equiv T_1 \quad (C1)$$

If A makes the risky offer, the probability of war will be q and the probability that the autocrat is violently removed from power will be qp_{B0} .

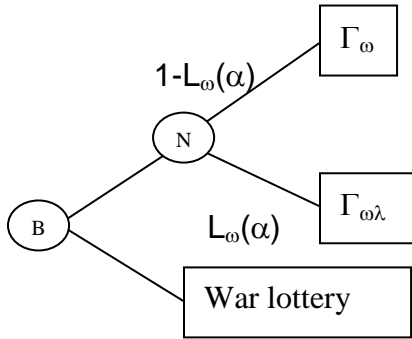
The electoral subgame, Γ_{elec}

The electoral subgame begins with A choosing a parameter α , representing how fair the electoral process will be. A knows that with probability q the subgame $\Lambda_{0\alpha}$ will ensue; while with probability $1-q$ the subgame $\Lambda_{1\alpha}$ will ensue. It can be shown that A will never offer $\alpha < \bar{\alpha}$, so I will assume henceforth that $\alpha \geq \bar{\alpha}$.

The subgame $\Lambda_{\omega\alpha}$ (see Figure 1) begins with B choosing to reject or accept A's offer. If the rival rejects the offer, then war ensues. If the rival accepts the offer, then player j incurs costs $c_j > 0$ from participating in the election, the state of the world ω becomes common knowledge, the vector $v \in \{A, B\}$ of the election becomes common knowledge, and: (a) if $v=A$ (which

occurs with probability $1-L_\omega(\alpha)$), subgame Γ_ω ensues; (b) if $v=B$ (which occurs with probability $L_\omega(\alpha)$), subgame $\Gamma_{\omega\lambda}$ ensues. If the autocrat loses an election ($v=B$), I assume that his pre-agreement utility will fall to λg_A and his probability of winning a war will fall to $\lambda p_{A\omega}$, where $\lambda \in [0,1]$. Smaller values of λ thus represent larger “costs” of losing an election. I let $\Gamma_{\omega\lambda}$ denote the bargaining subgame that ensues when it is common knowledge that the autocrat has lost an election and that the state is ω . The game forms of $\Gamma_{\omega\lambda}$ and Γ_ω are identical (both being versions of the standard bargaining game form described in the text); only the payoffs differ.

Figure 1: Subgame $\Lambda_{\omega\alpha}$



When will B accept A's offer and agree to participate in the proposed elections? First suppose $\omega=1$. B's payoff from accepting the offer α will be $V_{B,elec}(\alpha|\omega=1) = L_1(\alpha)\max\{Q_{B1\lambda}, w_{B1\lambda}\} + (1-L_1(\alpha))Q_{B1} - c_B \geq Q_{B1} - c_B$. His payoff from rejecting will be w_{B1} . Since $Q_{B1} - c_B > w_{B1}$, per (A4), B will accept the offer.

Now suppose $\omega=0$. B's payoff from accepting the offer α will be $V_{B,elec}(\alpha|\omega=0) = L_0(\alpha)\max\{Q_{B0\lambda}, w_{B0\lambda}\} + (1-L_0(\alpha))Q_{B0} - c_B$. If this payoff weakly exceeds w_{B0} , B will accept the offer; otherwise B will reject the offer.

Suppose that $V_{B,elec}(\alpha|\omega=0) < w_{B0}$. In this case, A knows that B will reject the offer α in state 0. Thus, A's expected payoff is $qw_{A0} + (1-q)[L_1(\alpha)\min\{\pi - Q_{B1\lambda}, \pi - w_{B1\lambda}\} + (1-L_1(\alpha))(\pi - Q_{B1})] - c_A$. A's expected payoff from making his optimal non-electoral offer is $qw_{A0} + (1-q)(\pi - w_{B1})$. A little algebra shows that $\pi - w_{B1} > L_1(\alpha)\min\{\pi - Q_{B1\lambda}, \pi - w_{B1\lambda}\} + (1-L_1(\alpha))(\pi - Q_{B1})$. Thus, A will never make an electoral offer that he knows B will reject in state 0.

Note that if $V_{B,elec}(1|\omega=0) < w_{B0}$, then the requirement that $V_{B,elec}(\alpha|\omega=0) \geq w_{B0}$ cannot be met. Also, if $\bar{\alpha} > 1$, then no election can be informative. In either case, A will offer no election. For the remainder of this section, consider the case in which some election is both informative and acceptable to the rival in state 0.

If he offers an election $\alpha \geq \bar{\alpha}$, A will choose α to maximize his expected payoff, $V_{A,elec}(\alpha) = qL_0(\alpha)\min\{\pi - Q_{B0\lambda}, \pi - w_{B0\lambda}\} + q(1-L_0(\alpha))(\pi - Q_{B0}) + (1-q)L_1(\alpha)\min\{\pi - Q_{B1\lambda}, \pi - w_{B1\lambda}\} + (1-q)(1-L_1(\alpha))(\pi - Q_{B1}) - c_A$, subject to the constraint that B accepts the offer in state 0. Recalling that $Q_{B\omega} > Q_{B\omega\lambda}$ (for $\lambda < 1$) and $\frac{\partial L_\omega(\alpha)}{\partial \alpha} \geq 0$, it follows that A's problem is equivalent to choosing α in order to minimize $L_0(\alpha)$, subject to securing B's acceptance in state 0. Thus, A's optimal electoral offer, α^* , is the most rigged election that is still informative ($\alpha^* \geq \bar{\alpha}$) and that B will accept in state 0. If $Q_{B0} - c_B \geq w_{B0}$, then $\alpha^* = \bar{\alpha}$. If $Q_{B0} - c_B < w_{B0}$, then $\alpha^* = \max\{\bar{\alpha}, \alpha^+\}$, where α^+ is such that $V_{B,elec}(\alpha^+|\omega=0) = w_{B0}$.

To see when a losing autocrat would (and would not) exit after electoral defeat, let D denote the exogenously fixed value of the top post in the polity. After winning an election in state 0, the rival's expected payoff from war will be

$w_{B0\lambda} = (1-\lambda)p_{A0}\pi - \gamma_B = w_{B0} + (1-\lambda)p_{A0}\pi$. Thus, after losing an election in state 0, the autocrat must give his rival at least $w_{B0\lambda}$ in order to deter war. If $D + w_{B0\lambda} > \pi$, then the autocrat cannot simultaneously stay in office (which gives him at least D) and deter war (which requires giving his rival at least $w_{B0\lambda}$). Thus, he must choose between fighting to remain in power (worth $w_{A0\lambda} = \lambda p_{A0}\pi - \gamma_A$) and negotiating a “peaceful” withdrawal from office. If $w_{B0\lambda} > Q_{B0\lambda}$, then A’s payoff from negotiations is $\pi - w_{B0\lambda}$. Since $w_{A0\lambda} + w_{B0\lambda} < \pi$, he prefers a negotiated exit. If $w_{B0\lambda} \leq Q_{B0\lambda}$, then A’s payoff from negotiations is $Q_{A0\lambda} > w_{A0\lambda}$ (assuming $\lambda < 1$) and again he prefers a negotiated exit.

Choosing whether or not to hold an election

Suppose that $q < T_1$, so A’s best non-electoral offer is risky. The autocrat will choose to hold an election if and only if $V_A(x_{A1}, x_{B1}) < V_{A,elec}(\alpha^*)$. Some algebra shows that this is equivalent to

$$q > \frac{Q^{B1} - Q_{B1} + c_A}{Q^{B1} - Q_{B1} + \gamma_A + \gamma_B + w_{B0} - Q^{B0}} \equiv T_2 \quad (C2)$$

Here, $Q^{B\omega} = L_\omega(\alpha^*) \max\{Q_{B\omega\lambda}, w_{B\omega\lambda}\} + (1 - L_\omega(\alpha^*))Q_{B\omega} \geq Q_{B\omega}$.

Suppose that $q \geq T_1$, so A’s best non-electoral offer is safe. The autocrat will choose to hold an election if and only if $V_A(x_{A0}, x_{B0}) < V_{A,elec}(\alpha^*)$. Some algebra shows that this is equivalent to

$$q < \frac{w_{B0} - Q^{B1}}{Q^{B0} - Q^{B1}} \equiv T_3 \quad (C3)$$

Given conditions (A1)-(A5), the autocrat's equilibrium choice of regime type can be summarized in the following table (which provides the basis for Proposition 1):

	$\sim[\bar{\alpha} > 1 \text{ OR } V_{B,elec}(1 \omega=0) < w_{B0}]$	$\bar{\alpha} > 1 \text{ OR } V_{B,elec}(1 \omega=0) < w_{B0}$
	$Q_{B0} - c_B \geq w_{B0} \text{ \& } \bar{\alpha} = 0$	$\sim[Q_{B0} - c_B \geq w_{B0} \text{ \& } \bar{\alpha} = 0]$
$q < \min\{T_2, T_1\}$	No elections: risky offer	No elections: risky offer
$T_2 \leq q < T_1$	One-party elections	Multi-party elections
$T_1 \leq q < T_3$	One-party elections	Multi-party elections
$\max\{T_3, T_1\} \leq q$	No elections: safe offer	No elections: safe offer

Appendix 2

I code the dependent variable in Tables 3 and 4 as a violent exit, if Archigos codes it as “irregular,” and as a peaceful exit, if Archigos codes it as “regular.” An alternative coding of the dependent variable, in which “regular” exits that lead to exile, jail or death, are also considered violent, leads to similar results.

A handful of leaders (8) are removed by foreign powers. These observations are excluded from the analysis. A somewhat larger group of leaders (44) die of natural causes while in office. I exclude these observations too in the main results. However, one can also code these cases as “continuations” in office without changing any conclusions.

The variable *MULTIPARTY* equals one when DPI2004's LIEC variable falls between 5.5 and 7 inclusive. The variable *ONEPARTY* equals one when

DPI2004's LIEC variable falls between 3 and 5 inclusive. The variable *ONEPARTY* is thus equal to one for any of the following regime types: one-party; multiple parties putatively legal but only one party wins any seats; and no parties are allowed, but elections are held. Thus, the variable identifies mostly de jure one-party regimes, along with a few de facto one-party regimes, plus a few no-party regimes that hold elections. Excluding the de facto one-party regimes and/or the no-party regimes does not significantly affect the results.

In identifying the time to the "next election," I have not distinguished between national legislative and national executive elections. Thus, the variable is "time to the next election, whether legislative or executive." I made this coding decision after preliminary investigations showed that there is no clear difference between these two types of election, in terms of reducing the incidence of violent exits.

If those who come to power by violent means postpone any elections that had been planned by the previous leader, then the calculation of *NEXTELEC* needs care. To see why, suppose that there is a violent exit in year y in a particular country. If the ousted leader had planned elections at $y+1$, then the proper value of *NEXTELEC* would be 1. If the incoming leader actually holds elections at $y+5$, then the value of *NEXTELEC* that one would code, were one to look only at the elections actually held in the country, would be 5. Thus, a case that actually shows the ineffectiveness of a looming election in preventing a violent ouster, might appear to support the idea that elections deter violent exits. To deal with this problem, the value of *NEXTELEC* is determined by researching when each

violently ousted leader had planned to hold elections, rather than by seeing when each incoming leader after a violent exit actually held elections.

If the incumbent leader eventually exits peacefully, then *NEXTELEC* equals the observed time to the next election, or 5, whichever is smaller. Thus, a value of 5 indicates that the next election is *at least* five years in the future. If the incumbent leader eventually exits violently, then *NEXTELEC* is coded according to what the incumbent leader's intentions appear to have been, rather than according to his or her successor's practice. For a nation with a history of peaceful elections, or with credible constitutional term limits, one can calculate when the next peacefully scheduled election would have occurred, had the violent exit not occurred, and use this as the value for *NEXTELEC*. In cases where rules governing the frequency of elections are obscure or appear not to have been binding, *NEXTELEC* is given the arbitrary value of 5, indicating that the next election was expected to occur at least 5 years in the future.

Appendix 3

Here I discuss whether simultaneity bias affects the analysis in Tables 3 and 4. Let the uncertainty that a given autocrat faces be denoted by θ (in terms of the notation in Appendix 1, one might let $\theta = (q, p_{B0})$). A recursive system of three equations that is in the spirit of the model developed above would be as follows: a first equation in which a regime's type (non-electoral, one-party, multi-party) is generated by θ and possibly some exogenous factors Z_1 (see Gandhi and Przeworski 2007 for some suggested regressors); a second equation in which the timing of elections is generated by θ and some exogenous factors Z_2 ;

and a third equation in which a ruler's fate (continuation in office, peaceful exit, violent exit) is generated by regime type, election timing, and some exogenous factors Z_3 (here, just GDP per capita). The hierarchical nature of the model follows because there is a strict temporal sequence: the regime type is chosen first, then the election timing, after which the autocrat's fate is determined. Thus, neither regime type nor election timing can be caused by the autocrat's fate; and regime type cannot be caused by election timing. I estimate only versions of the third equation in the system in this paper and the question arises whether this approach is justified.

The answer is that focusing on the third equation alone is justified, assuming that the errors in the first two equations are independent of those in the third. In future, if plausible specifications of the first two equations can be devised, it may be possible to test whether the errors are independent or not. For now, I simply assume that they are.

The remaining issue is whether the omission of the variable θ from the third equation poses problems. The answer is that omitting θ should work against finding the results I expect (i.e., should either *reduce* the magnitude of the effects I expect or reverse the sign) and so is not a great concern.

To see that omitting θ will reduce the magnitude of the estimated effects, consider the variable *MULTIPARTY*. θ correlates positively with *MULTIPARTY*: greater uncertainty ($q > T$) and greater military threat (larger p_{B0}) induce the autocrat to concede multiparty elections. Greater values of θ should also correlate positively with violent exits; indeed, if either $q = 0$ or $p_{B0} = 0$, then violent

exits are not possible and the probability of such exit is qp_{B0} for $q < T$. Thus, θ generates a positive correlation between violent exits and multiparty regimes, whereas the theory argues that the direct effect of multipartism should be to diminish violent exits. Failing to control for θ will bias the coefficient on *MULTIPARTY* away from that theoretically expected.

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Table 1: How does the autocrat exit in equilibrium?

If the autocrat chooses, in equilibrium, to hold...	Probability of exit sans violent conflict can be as high as...	Probability of exit after violent conflict can be as high as...
No elections	0	qp_{B0}
Single-party elections (i.e., $\alpha^* = 0$)	0	0
Multi-party elections (i.e., $\alpha^* > 0$)	$qL_0(\alpha^*) + (1-q)L_1(\alpha^*)$	0

Table 2: How leaders exit in various types of authoritarian regime

Regime type (Number of country-years)	Continuation in office	Peaceful exit	Violent exit	Probability of violent exit, conditional on exit
No elections (745)	89.5%	4.4%	6.0%	.58
No-party or one-party elections (1,0121)	92.9%	4.9%	2.3%	.32
Multi-party elections (1,295)	86.9%	10.1%	3.0%	.23

Table 3: Leaders' fates in autocracies, 1975-2004

Independent variables	Model 1 (regional fixed effects not shown)	Model 2 (country fixed effects not shown)
<i>Peaceful exit</i>		
MULTIPARTY	.57** (.24)	.27 (.29)
ONEPARTY	.23 (.27)	-.11 (.36)
GDP	-.00002 (.00002)	-.00003 (.0001)
CONFLICT	.26 (.19)	.02 (.28)
-----	-----	-----
<i>Violent exit</i>		
MULTIPARTY	-.79*** (.24)	-.47* (.28)
ONEPARTY	-.88*** (.28)	-.24 (.35)
GDP	-.00007** (.00003)	.0000 (.0002)
CONFLICT	1.00*** (.21)	1.27*** (.30)
-----	-----	-----
Number of observations	2989	2082
Pseudo-R ²	.08	.19

* Significant at .1 level, two-tailed test.

** Significant at .05 level, two-tailed test.

*** Significant at .01 level, two-tailed test.

All models include a cubic polynomial of each leader's time in office but I do not report the coefficients here.

Table 4: Leaders' fates in autocracies, 1975-2000, as a function of the electoral cycle

Independent variables	Multi-party autocracies	One-party autocracies
<u>Peaceful exit</u>		
constant	-1.85*** (.72)	-2.52*** (.30)
HONEYMOON	.87 (.61)	-.65 (.77)
ELECTION	1.27** (.51)	.32 (.72)
NEXTELEC	-.42** (.19)	.13 (.14)
GDP	.00006 (.00004)	
-----	-----	-----
<u>Violent exit</u>		
constant	-5.93*** (1.39)	-7.93*** (1.77)
HONEYMOON	-1.73 (1.09)	.53 (1.24)
ELECTION	1.73*** (.56)	3.76*** (1.16)
NEXTELEC	.67*** (.15)	.57** (.24)
GDP	-.0002* (.0001)	
-----	-----	-----
Number of observations	1334	
Pseudo-R ²	.17	

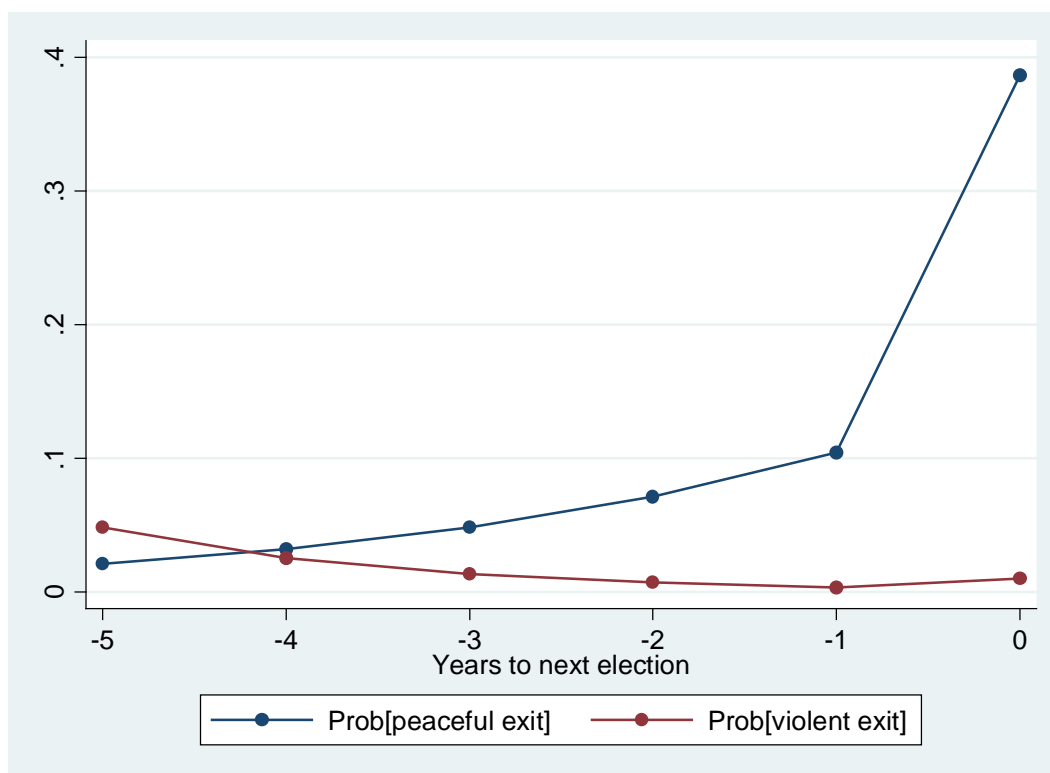
* Significant at .1 level, two-tailed test.

** Significant at .05 level, two-tailed test.

*** Significant at .01 level, two-tailed test.

The model includes a cubic polynomial of each leader's time in office and regional fixed effects but I do not report the coefficients here.

Figure 1: Estimated probabilities of peaceful and violent exit in multi-party autocracies, across the electoral cycle



Notes:

- (a) The estimated probabilities are from the analysis in Table 4. I assume a non-honeymoon year and a country with a GDP per capita of \$2,000 (near the median of the sample).
- (b) The “years to next election” variable is coded here so that “-5” means (at least) five years until the next election; “-4” means four years to the next election; and so on.