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If You're Against Them You're With Us: The Effect of Expropriation on Autocratic Survival

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Abstract

This article advances a theory of why some dictators weaken the elite through expropriation whereas others do not. When the organization that launches a new dictator into power is uncertain about whether he will remain loyal to them, a dictator's decision to expropriate the preexisting elite may contribute to political stability by signaling his exclusive reliance on this group. The authors corroborate this claim empirically. Using new data compiled on land, resource, and bank expropriations in Latin America from 1950 to 2002, the authors show that large-scale expropriation helps dictators survive in power. Furthermore, expropriation tends to occur early in a dictator's tenure, and its effect on leader survival decays over time, providing additional evidence for its signaling value. The history of autocracy in Mexico between 1911 and 2000 further illustrates the importance of expropriation in promoting autocratic survival as well as how the codification of new property rights can transform a dictator's launching organization into a new economic elite.

Keywords

expropriation, dictatorship, autocratic survival, credible commitment, Latin America

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Why do some dictators destroy their country's economic elite via large-scale expropriation even though it almost always damages the economy and creates powerful enemies? This behavior contrasts with several notorious right-wing dictatorships that have faithfully represented the oligarchy. Many, such as the military junta that ruled Uruguay from 1976 to 1983, have been concentrated in Latin America. Although these cases have rightly merited considerable scholarly attention, many dictators fail to live up to what elites would ideally desire from their political agents. From 1950 to 2002, 11 of 18 Latin American countries experienced at least one episode of large-scale expropriation under autocracy, defined as the seizure of land, firms operating in the natural resource sector (oil, natural gas, mining), or commercial banks.[1] Some of these "left-wing" dictators are well known, such as Peru's Velasco and a host of post-revolutionary regimes including the PRI in Mexico, Cuba's Castro, the MNR in Bolivia, and Nicaragua's Ortega. Other cases have garnered less attention: a string of military dictators in Ecuador, El Salvador's Duarte, the Dominican Republic's Balaguer, and Panama's Torrijos.

Although Latin America's "expropriative" dictators constitute a minority, their regime's relative durability represents an intriguing puzzle. Although only 20% of the region's dictators engaged in large-scale expropriation between 1950 and 2002, their time in office represents 40% of total dictator-years.

Focusing on Latin American autocrats between 1950 and 2002, this article introduces original data on land, resource, and bank expropriations to shed light on this puzzle. We uncover four findings. First, large-scale expropriation tends to occur at the outset of a dictator's tenure, challenging the commonly held view that expropriation tends to occur only after a dictator has consolidated authority. Second, dictators who expropriate the assets of incumbent economic elites tend to last longer in power than those who do not. Although plundering the preexisting elite shrinks the economic pie in the short run, it may simultaneously foster long-run political stability. Third, the value of expropriation for dictator survival operates beyond any additional rents that the dictator gains through expropriation, which might enhance his ability to distribute goodies to his winning coalition (Bueno de Mesquita, Smith, Siverson, & Morrow, 2003). Fourth, the signaling value of expropriation fades over time as uncertainty about dictators' intentions and policies decreases.

By focusing on the informational issues that shape the early stages of dictatorial rule, we synthesize these findings theoretically. A dictator's expected chances of surviving in office are usually low at the outset of his rule, when uncertainty about his intentions and capabilities is at its peak. Will the new dictator continue to be loyal to the supporters who launched him into office after he consolidates his rule? Resolving this uncertainty is particularly important given that the most serious threat that dictators face emanates from

within their support coalition (Geddes, 2003; Haber, 2006), an insight empirically demonstrated by Svolik (2009). The act of expropriating the preexisting elite (PE), the individuals privileged under the previous regime, signals a dictator's willingness to reassign property rights to favor those individuals who helped him grab power, the launching organization (LO). This helps him secure the loyalty of this powerful group.

The remainder of the article is organized as follows. First, we situate our contribution within the existing literature. We then introduce a theory to explain why a new dictator would expropriate powerful elites despite its riskiness. Expropriation of the PE occurs when the members of his LO are uncertain about whether he will remain loyal to them or betray them in favor of the PE. Expropriation is a costly signal of loyalty to the LO; it should thus occur relatively early in a dictator's tenure and should make the dictator more secure. We confirm both of these hypotheses on the full set of Latin American autocrats (1950–2002) using new data on large-scale expropriation. Further implications are evaluated in a Mexican case study.

Expropriation Under Dictatorship

Our theoretical framework draws on extant theories of expropriation under dictatorship. These emphasize the role that a dictator's political vulnerability plays in stoking predatory behavior that distorts economic decision making. Clague, Keefer, Knack, and Olson (1996, p. 250) argue that because autocrats must rely on the support of the military and police, they face strong incentives to increase taxes and shift public expenditures toward internal security and defense, reducing future GDP in the process. Similarly, Cukierman, Edwards, and Tabellini (1992) argue that dictators who face political instability will highly discount the future and thus seek out "easy-to-collect" sources of revenue that discourage investment and reduce long-run revenues. This literature predicts regressive redistribution as a result of political insecurity. We agree that political insecurity drives expropriation. We disagree on who is targeted and why: The signaling value associated with destroying established stocks of wealth means that the elite are the likely victims of expropriation.

Bueno de Mesquita et al. (2003) perhaps speak most directly to the issue at hand: They address the challenge that leaders face in buying loyalty when their potential supporters fear that they may not be in future winning coalitions. A dictator's delivery of private goods depends on the "loyalty norm" between him and his supporters. Although their baseline model assumes that any uncertainty over loyalty is resolved at the transition itself, they later relax

this assumption: "Initially an autocrat's coalition is relatively unstable since members fear exclusion. However, as the learning process continues . . . their fear of exclusion diminishes and the loyalty norm strengthens" (Bueno de Mesquita et al., 2003, p. 100). Indeed, the turbulent history of dictatorship reminds us that it is not inevitable that dictators will master this learning process and establish a credible commitment to their supporters. We thus explore how new dictators address this uncertainty to establish loyalty and seek to explain the variation in dictators who successfully credibly commit to their coalition versus those who do not.

Although the dictator needs to make promises to his core supporters to secure their loyalty, at a later point the dictator may face incentives to renege on these promises. Dictators must remedy this time-inconsistency problem if they are to remain in power. One solution is to institutionalize arrangements in which elites have veto power (North & Weingast, 1989; Wright, 2008). Political parties, legislatures, and elections can help dictators co-opt the opposition and make their promises to core supporters credible (e.g., Gandhi & Przeworski, 2006; Svolik, 2009). Although this literature has greatly advanced the understanding of the inner workings of autocratic regimes, it has rarely considered the credibility issues that arise from information asymmetries between a dictator and other powerful political actors. We focus in particular on the LO's inability to know with certainty whether the dictator will consistently favor them.

Finally, although recent empirical work on political survival among dictatorships is a step in the right direction, it is incomplete. One strand focuses on how variation in key political institutions maps onto variation in regime duration (Geddes, 2003; Wright, 2008) but is silent about the duration of individual leaders within any given regime: Regimes that cycle through many different dictators within an autocratic spell and those where one leader or a few leaders endure for an extended period are conflated. Although another literature remedies this dilemma by focusing on coup risk (Londregan & Poole, 1990), it tends to neglect how institutional and political factors affect leader survival. By contrast, we both focus on individual leaders as well as how policy and institutional heterogeneity affect dictatorial survival.

Theory

Possible Arrangements of the PE and LO and Their Implications for Expropriation

Although expropriation on the part of a dictator can signal his intentions to his LO, potentially enabling him to garner their support over the longer

Table 1. Expropriation and Potential Outcomes by Degree of LO and PE Overlap

Expropriation decision	LO ≠ PE	LO = PE
Dictator expropriates	Extends tenure because of ability to signal loyalty	Tenure reduced (Probability of coup very high)
Dictator ≠ expropriate	Tenure reduced because of inability to signal loyalty	Extends tenure as puppet OR executives rotated in and out of power

LO = the dictator's launching organization; PE = the preexisting elite that receive selective property rights and privileges under the previous regime. See text for definitions of the LO and PE.

term, the salience of this signal depends on the degree of intersection between the two potential groups that the dictator could rely on for support: the PE and the LO. The PE consists of those individuals who were privileged under the previous regime. Although the basis of their privilege may be wealth, ethnicity, or even ideology, they share one thing in common: a set of selective property rights that grant them special privileges and rent flows in exchange for political support. However, because these property rights can be withdrawn by an autocrat if political calculations drive him to expropriate, the PE's favorable position is inherently tenuous. The LO consists of those individuals who help a new dictator come to office (Haber, 2006). Because they were able to place the dictator in power, they also have the capacity to remove him and thus pose the most serious threat to his rule (Geddes, 2003).

How does the overlap between the PE and LO condition the effect of expropriation on a dictator's tenure? Table 1 displays the predicted outcomes of a dictator's tenure as a result of two key factors. The first, listed in the columns, is the range of intersection between the LO and PE. The LO and PE can be either perfectly overlapping, indicating that the LO *is* the PE, or disjoint, such that at least some subset of the LO is not drawn from the PE. The table's rows display the actions a dictator can take: either expropriate the PE or not. The Velasco dictatorship in Peru (1968–1975) embodies the upper-left-hand cell. On coming to power with a small cohort of military officers, he implemented policies explicitly aimed at undercutting the power of established elites, favoring the faction of officers that launched him into office.

Now consider the right half of Table 1. When the dictator's LO is composed entirely of members of the PE, a dictator is unlikely to expropriate these individuals for fear of undercutting his only supporters and therefore all but

guaranteeing his ouster. If, on the other hand, a dictator chooses not to expropriate, one of two outcomes may result. First, the dictator may serve as the faithful agent of the PE, playing the role of a puppet indefinitely. Second, the dictator may be one of several executives who are rotated in and out of office to prevent them from consolidating power and thus threatening the elite. One paradigmatic case in which the LO came directly from the PE and evidence this rotation pattern is Mexico under single party rule. Over the span of 71 years, party officials dictated the terms of executive succession and underwrote an uninterrupted chain of executives who ruled during 6-year terms and stepped aside peacefully.

What is the likelihood that the LO and PE are separate groups? Because expropriation can serve several purposes, only one of which is signaling loyalty, we must assess the relative frequency with which the LO and PE differ. If the LO and PE perfectly overlap—that is, if they are fundamentally the same—then the signaling value of expropriation is trivial. The purpose of expropriation is for the dictator to make it absolutely clear that he prefers the LO to the PE.

Irregular leader cycling within a spell of autocracy that is typical across autocratic regimes is one strong piece of evidence suggesting that a perfect overlap between the LO and PE occurs only rarely. Indeed, the image of a long-lived dictator who rules unopposed is the exception rather than the rule. A full 50% of dictators in Latin America from 1950 to 2002 survived in office 2 years or less, and well more than half were either removed from office in a coup or forced to step down. A coup during an ongoing autocratic spell may indicate that (a) elites are uniformly opposed to the policies of the current dictator and support an ouster, (b) elites are divided and some subset desires a break with the current dictator, or (c) the military is acting independent of elites. None of these scenarios supports the notion that the coup plotters are acting simply on behalf of the PEs that preceded a new dictator's rise to power.

Existing theory also suggests that a perfect overlap between the LO and PE occurs infrequently. Specifically, a dictator's LO is most likely to be equivalent to the PE when elites are dissatisfied by redistribution adopted under democracy and launch a reactionary coup (Acemoglu & Robinson, 2006). Yet in our sample of 139 autocrats, only 27 displaced democrats. And in some of these cases, dictators actually damaged the interests of the PE upon coming to power.[2] In contrast to dictators who were propelled to power by the PE in a reactionary coup that overthrew democracy, there were a total of 112 dictators who took power from a previous dictator (81%)—prima facie evidence of a divergence between LO and PE.

Strategic Signaling From the Dictator When the LO and PE Are Distinct

Because the LO and PE only rarely perfectly overlap, we now focus on situations in which at least some subset of the LO are not members of the PE. Below we discuss the strategic logic that drives dictators to expropriate the PE to win continued support from the LO. We argue that the signaling value of expropriation is a more consequential determinant of autocratic survival than its role in increasing the goodies available to buy support over the longer term and demonstrate this point empirically below. In a separate online appendix, we formalize the model that follows.[3]

Although there may be cases where the members of the dictator's LO have reasonably reliable beliefs about a new dictator's intentions, problems of incomplete information often plague the outset of a dictator's tenure. This is especially the case if instability and executive turnover are high—precisely the context in which most dictators have obtained power in Latin America.

There are a number of things that a dictator knows that his LO does not have as much information about. The dictator has a better idea of the costs of honoring his promises. For example, he may be in a better position to gather information about the likelihood of resistance to his policies by virtue of controlling the security apparatus. Moreover, private appeals by the economic elite to deliver him rents in return for respecting the status quo at the expense of the LO are likely to remain just that—private. Similarly, some dictators may be more risk acceptant than others, willing to pursue ways of generating benefits for the members of the LO that may risk greater resistance to their rule or even a countercoup. The problem of incomplete information is exacerbated by the fact that new dictators have an incentive to *deliberately* conceal their political objectives prior to ascending to power to avoid a debate that would complicate their ability to secure the support needed to launch the coup (Stepan, 1971, 216). As a result, members of the LO may fear that a dictator will transgress against their interests, and with good reason: Campaigns of harassment and imprisonment of former civilian allies are common, as demonstrated by the rule of Leguia and Odría in Peru (Gilbert, 1977) and by Castello Branco in Brazil (Stepan, 1971). Even more damaging to members of the LO are those cases in which the actors who helped finance a coup become the chief targets of expropriation, as in the case of Peru under Velasco (Gilbert, 1977, p. 154).

There are dictators who are more willing and capable to grant the LO favorable property rights and share rents than others. Whether the dictator is an unloyal type unwilling to share rents or a loyal type willing to share rents

is known to a dictator but not his LO. The LO knows, however, the likelihood that the dictator they put into power is an unloyal or loyal type. On assuming office, the dictator can choose whether or not to expropriate the PE. If he does so, he takes all their wealth and chooses some level of rents from the result and makes that level known to his LO. A higher level of rents benefits the dictator but is worse for the LO. If the dictator chooses to expropriate, he also suffers a cost that corresponds to his type, with an unloyal dictator having higher costs of expropriation than a loyal dictator. Once the dictator chooses his level of rents, the LO may either accept or reject this offer. If the LO rejects the offer of the dictator, then it mounts a coup at some cost c that succeeds with probability p. If the LO wins, it allocates all the wealth to itself. If the dictator does not expropriate the PE, he still extracts some rents from them. The difference here, however, is that the residual wealth not extracted remains in the hands of the PE instead of going to the LO. The LO again may choose to accept the dictator's offer or mount a coup against him.

Strategic circumspection by a new dictator about his intentions diminishes elites' ability to predict postcoup policies. Early moves therefore matter for the information they send about the dictator's intentions. The inability to quickly mitigate uncertainty will sow the seeds of distrust among LO members. Although a new dictator who plans to remain loyal to his LO would like to find an easy way to allay their fears about his intentions without having to threaten the interests of the PE, the dilemma is that dictators who intend to transgress against the interests of the LO have an incentive to lie, making it difficult to distinguish dictators who intend to deliver beneficial policies to their LO and those who do not. Therefore, it is critical for dictators who genuinely plan to remain loyal to find a way to transmit this information to the LO. This is particularly true given the ability of the LO to threaten a coup if it suspects that the dictator will side with the PE against the LO. That the LO was able to bring the dictator to power implies that they may credibly threaten to remove him after he seizes power, which can be used to pressure him for favorable policies.[4]

The ability of a dictator to signal his loyalty to the LO is predicated on the link between the signal he sends and the prospects that he will extend the LO favorable rights, as well as the costliness of this signal. The expropriation of the PE satisfies these criteria. There are steep fiscal and political costs to large-scale expropriation; it stalls economic growth and reduces state revenues. Expropriation can also lead to strong resistance by the PE as well as groups that are indirectly affected. By expropriating the PE, and thus burning

this bridge, the dictator reveals that he intends to remain loyal to his LO. He not only brooks the loss of rents and support from the PE but also accepts the risk of being left with no support if the LO turns its back on him. Conversely, for a dictator who plans to maintain the PE intact as a hedge against his LO, or to enjoy the rents they would deliver him, expropriating the PE is too costly. Indeed, failure to do so provides information about his intentions: The LO should infer that he should not be trusted. In short, as long as the costs of expropriation differ sufficiently between loyal and unloyal dictators, expropriation should allow dictators to bolster their credibility and secure the continued support of their LO. And since a dictator who expropriates the PE is more likely to be judged trustworthy than one who does not, he is more likely to gain the support of his LO and thus protract his tenure.[5]

Research Design

To explore the relationship between expropriation and dictator duration, we constructed a panel data set of Latin American dictators with 589 observations for 139 leaders observed from 1950 to 2002 where we code autocracy dichotomously according to Cheibub and Gandhi (2004). The unit of observation is the leader-year, and there are 139 leader spells during this period. To address issues of potential bias arising from left-censored data (Box-Steffensmeier & Jones, 1997), we also include autocrats whose tenure began prior to 1950 but was still ongoing in this year. We focus on Latin America for three reasons. First, since the region is characterized by high inequality, the PE encountered by a new dictator is often powerful, making expropriation a risky and costly endeavor. Second, this region offers a long history of dictatorship, with significant variation in the types of dictators who have exercised power. Last, focusing on Latin America ensures that we exclude episodes of expropriation that occurred in relatively new countries with a recent colonial past. Because the emergence of sovereignty in other postcolonial countries occurred relatively recently, episodes of expropriation were undertaken for reasons other than signaling. Many independence movements in Africa and the Middle East featured the expropriation of colonial property as a way to consolidate political sovereignty by striking against imperial power. And even after independence, military officers spearheaded "nationalist revolutions" to rid their countries of foreign dependency; expropriation of colonial land and corporations was associated with xenophobic appeals, confounding the signaling value of expropriation with other political objectives advanced via expropriation.[6]

Leader Exit

Any leader exit is coded as 1 for the year in which an autocrat exits power, irrespective of how he does so. There are several ways in which this can occur. He may step down (a) after his term limits specified in the constitution expire; (b) by calling elections, or by respecting an agreed-on transition process that involves future elections; (c) by appointing a successor; (d) by resigning without arranging succession; (e) by assassination; or (f) by being ousted in a coup. We code as 0 years in which the autocrat remains in power or is removed in the following two ways: (a) dying naturally or in an accident or (b) being ousted by a foreign invasion. A leader exit is observed in 132 of the 589 leader years in the data set (22%). There were 19 episodes of back-to-back exits. Although 104 leader spells lasted more than one year, three dictators lasted more than three decades: Castro of Cuba, Trujillo of the Dominican Republic, and Stroessner of Paraguay.

Expropriation

We bring three new data series to bear on the question of how expropriation influences leader tenure across Latin American autocracies. We define expropriation as the forced divestment of private actors' assets and income effectuated by the state, restricting attention to the most visible cases involving the expropriation of capital. We therefore exclude quasi-expropriations that solely disallow investors from recovering their capital plus a market return (e.g., price controls that violate laws or contracts and punitive taxes). In other words, we are interested in the expropriation and redistribution of stocks of wealth rather than flows. Furthermore, we code expropriation only based on the transfer of property and income and not on the final ownership status of the property and right to capture income flows. Finally, we do not discriminate between expropriations that compensate the original claimants and those that do not.[7]

Our measures of large-scale expropriation are threefold. The first codes the expropriation of land. The second codes the expropriation of firms involved in the natural resources sector. The last codes the expropriation of banks and similar financial institutions. Taken together, these measures capture the most important sectors of the economy during this period. Moreover, the concentrated ownership that characterizes these sectors guarantees that expropriation is disproportionately affecting elites. Finally, as we argue

ahead, these measures also allow us to adjudicate between different potential mechanisms linking expropriation to dictator survival.

The first and most important measure of expropriation is land expropriation, for several reasons. First, land long provided an economic basis for political power and social prestige among a small set of elites in Latin America (Barraclough, 1973). Second, it is a fixed asset that cannot easily be hidden from the state or moved abroad. Therefore, this form of expropriation is not only highly threatening and consequential to those it affects but also outwardly visible, even to those not expropriated. Land expropriation, in striking at a well-established set of the economic elite, can be observed by the members of the LO and carries important symbolism. Yet small amounts of token land redistribution are not equivalent to massive expropriations. Although large-scale reforms have historically struck strongly at the traditional elite, smaller episodes often selectively target medium-size landholders. We therefore generated a dummy variable called *land expropriation* in which expropriation episodes of private landholdings are coded as 1 when they exceed 3% of cultivable land in any given leader year and 0 otherwise. This threshold best captures the cases accepted as major in the land reform literature, although fixing it slightly higher or lower does not affect the results.[8] We also use a continuous version of this variable that is again coded as a 0 if the ratio of land expropriated is less than 3% of cultivable land—consistent with the reasoning articulated above—but takes on the observed values of the ratio of private landholdings expropriated to cultivable land above this threshold. This second measure therefore allows us to see if marginal increases in the magnitude of expropriation above and beyond the 3% threshold further reduce the odds of a dictator exiting power.

The second measure of expropriation is *natural resource expropriation*, a dummy variable coded as 1 if a foreign oil, gas, or mining firm is expropriated. From 1950 to 2002, we code 16 resource expropriations. We use this measure to probe whether the link between expropriation and dictator duration works through the signaling value tied to the weakening of the PE rather than some other mechanism. Two alternative mechanisms come to mind. On one hand, expropriation may increase revenue flows by making property taxation easier. On the other hand, it may serve as patronage targeted to supporters. Thus, it could be the case that land expropriation may extend dictator duration through these alternative channels instead of via signaling dictator intentions. Resource expropriation allows us to adjudicate between these mechanisms because although the expropriation of firms operating in the mining and fuel sector may be motivated by the promise of increased revenues and patronage,

it has no signaling value. Resource expropriation does not typically weaken the PE because the firms operating in the oil, natural gas, and mining sector have tended to be foreign multinationals. Typically, Latin American governments have nationalized foreign firms in the natural resource sector to both boost revenues and redistribute benefits to the population in the form of subsidized gasoline and patronage jobs in the parastatal firms (Wirth, 1985).

Finally, we also identify bank expropriations. *Bank expropriation* is coded as 1 if one or more banks are expropriated in a particular year. Expropriation of both foreign and domestic firms in the banking sector is possible given that, historically, both foreign-owned and domestically owned banks have operated in Latin America. In some countries, only nationally owned banks have been allowed to operate (e.g., Mexico from the end of the Mexican Revolution to 1994), whereas foreign banks have been dominant in others (e.g., Argentina). There are also countries in which both foreign and domestically owned banks have operated side-by-side (e.g., Brazil). *Foreign bank expropriation* is coded as 1 if foreign banks are expropriated. *Domestic bank expropriation* is coded as 1 if domestic banks are expropriated. If both foreign and domestic banks are expropriated in the same year, then both are coded as 1. These measures help ensure that the results for land and resource expropriation are not the result of sectoral idiosyncrasies. Consistent with the logic outlined above, if the mechanism by which expropriation protracts survival is the costly signal it sends to the LO, then we should find a negative association between the expropriation of domestic banks and autocratic exit but none for the expropriation of foreign banks. The sources and methods used to code the expropriation measures described above are in an online appendix.

Statistical Analyses

Three implications of the theory are tested empirically in this section. First, a leader must convince his supporters at the outset of his tenure that he is committed to favoring them over other powerful elites if he is to maintain their support. This suggests that large-scale expropriation should be most likely early in a dictator's tenure. Second, a dictator who signals his loyalty to the LO by expropriating the PE should be more likely to remain in office than a dictator who does not expropriate. Certain forms of expropriation—those that destroy the PE in favor of the LO—deliver the signal of loyalty more clearly than others, and should therefore be linked to greater dictator survival than others. Finally, because LO uncertainty about the dictator's loyalty to them is more acute at the outset of his tenure and can be reduced

when the dictator expropriates in their favor, expropriation should have a greater effect on leader tenure in the short term. The signaling value of expropriation should decay over time. Below we test each of these empirical implications.

Empirical Implication 1: Timing of Expropriation

For a dictator, there is a great difference in expropriation early or late in his tenure. Early in a new leader's tenure, he needs to convince his supporters that he is committed to them. Large-scale expropriation offers a signal of his commitment and should therefore more frequently occur at the outset of a dictator's rule. This is not to rule out the fact that a dictator may engage in expropriation during the twilight of his tenure. Yet fading dictators need to pillage liquid assets that can be quickly ferried abroad, limiting the extent to which they can steal hard assets from elites. The expropriation of fixed assets from the PE that can be used to signal the dictator's loyalty to them, by contrast, should occur at the beginning of his tenure.

An alternative hypothesis is that dictators always want to expropriate because they can keep a portion of the resulting rents. Rather than serve as a signal to supporters, expropriation is simply a way to redistribute income to themselves and their supporters. Yet expropriation may induce instability. Therefore, dictators will expropriate only once their supporters are confident that they will continue to be favored by the dictator. Expropriation will not occur immediately, but only once a dictator has consolidated support.

Below we test these competing hypotheses. We focus primarily on land expropriation because the expropriation of land is a visible, costly, and symbolic gesture that directly undercuts the basis of economic and political power of the incumbent elites. It typically has lasting effects and therefore has the most signaling value. Indeed, it is precisely for this reason that we later use our data on the expropriation of resource firms and banks to test the reliability of our theory's causal mechanism and to rule out alternative explanations for the correlation between land expropriation and dictatorial survival.

Figure 1 provides a preliminary look at the data. Figure 1a is a bar plot of episodes of major land redistribution as a function of leader tenure, a count of the number of years the dictator has been in office. The graph indicates that a vast majority of land expropriation occurs in the first few years of a dictator's tenure. In fact, the count of land expropriations decreases monotonically with leader tenure. The only expropriations that occur beyond seven years of tenure take place under the Dominican Republic's Trujillo, who

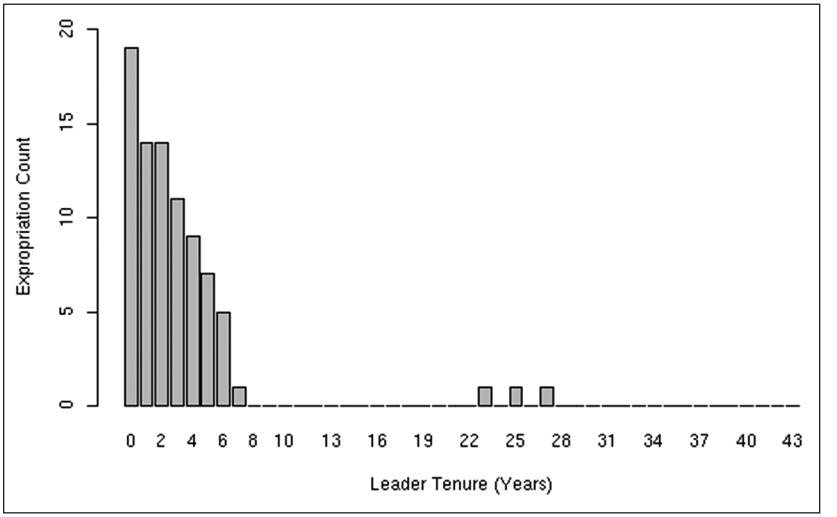

Figure 1a. Timing of episodes of major land expropriation

represents the stereotypical yet rare case of a fading dictator who chooses to expropriate.

Figure 1a, however, does not account for other factors that may affect expropriation, and does not adjust for the fact that the distribution of leader tenure in Latin America during the period disproportionately clusters around the first few years, declining as time increases. As a result, Table 2 presents the regression results of a series of panel logit models where the dependent variable is whether land expropriation occurred in year *t*. Robust standard errors are clustered by year to address heteroscedasticity and contemporaneous correlation. In column 1 we report the results of a bivariate regression of land expropriation against leader tenure. As predicted by our theory, the coefficient on this variable is negative. Figure 1b plots the predicted probability of land expropriation as a function of leader tenure generated from this model. The trend is similar to that in Figure 1a: Land expropriation is more likely to occur early in a leader's tenure. The probability of land expropriation declines monotonically with leader tenure, declining by nearly a factor of 2 through the first decade of an autocrat's tenure.

Might increases in time in power affect the dictator's propensity to expropriate land nonlinearly? Although increased time in power may lower the odds of expropriation early in a leader's tenure, they may later increase after he has consolidated his authority. Column 2 tests this possibility by introducing both

Table 2. Timing of Land Expropriation Among Latin American Dictators, 1950–2002

	(1)	(2)	(3)	(4)	(5)	(6)
Leader tenure	–0.06	–0.464	–0.472	–0.429	–0.056	–0.536
	[2.42]**	[2.17]**	[1.98]**	[1.72]*	[2.05]**	[3.15]***
Leader tenure quadratic		–0.054	–0.025	–0.01		
		[0.43]	[0.34]	[0.12]		
Leader tenure cubed			0.062	0.018		
			[0.31]	[0.09]		
Log(GDP per capita)				–0.464	–0.459	2.364
				[1.93]*	[1.89]*	[0.56]
Resources income per capita				0.756	0.759	2.33
				[2.36]**	[2.32]**	[1.05]
Military regime				–0.55	–0.553	18.916
				[1.76]*	[1.79]*	[13.77]***
Observations	589	589	589	561	561	155

Dependent variable is land expropriation. Models are estimated via logit regression, except for column 6, which is a conditional logit. All independent variables lagged by one country-year except for the leader tenure terms. Robust z statistics clustered by year in brackets, except for column 6, where they are clustered by leader. Constants estimated but not reported.
*Significant at 10%. **Significant at 5%. ***Significant at 1%.

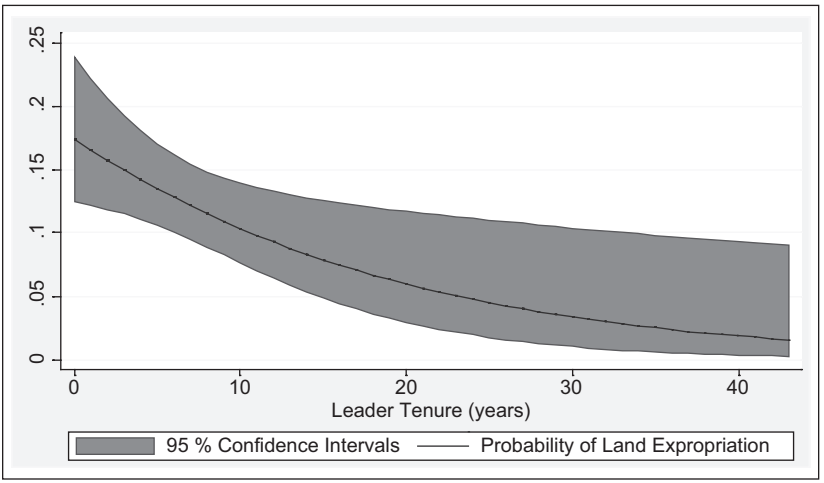

Figure 1b. Predicted likelihood of land expropriation over time
These predictions are generated from Table 2, column 1.

leader tenure and its square; we orthogonalize these variables to remove the effects of the linear term from leader tenure quadratic term since these variables are, by construction, highly collinear. Although the substantive effect of leader tenure increases, the quadratic term is far from statistically significant. Column 3 introduces a cubic term. As with the squared term, the cubic term is statistically insignificant.

In column 4 we now introduce control variables that could also explain variation in the timing of land expropriation. We control for *log(per capita income)* in real 2000 international dollars since it is possible that dictators who rule wealthier countries have access to alternative regular sources of revenue and therefore do not need to expropriate fixed assets to cover their expenditures (see Cukierman et al., 1992). Using a similar logic, we control for *total resources income per capita* (measured in thousands of constant 2007 dollars) and also expect a negative sign since dictators who have access to resource rents may have less need for rents associated with land ownership. Finally, we control for whether the dictator in power is the head of a *military regime* since it has been argued that Latin American military dictators have tended to be steadfast supporters of the landed elite.[9] We lag each of these variables by 1 year to mitigate reverse causation. We also note that in column 4 the joint inclusion of linear, quadratic, and cubic terms for leader tenure is also an effective way to address temporal dependence, so that the results not only demonstrate the effect of time on land expropriation but also ensure that the results for the control variables are robust to this source of error nonsphericity (see Carter & Signorino, 2010). In column 4, although the substantive significance of leader tenure is largely unchanged, the statistical significance is reduced ($p = .09$). However, if we remove leader tenure quadratic and leader tenure cubic—they are again statistically insignificant—from the model, leader tenure's statistical significance recovers (column 5).

There are two salient sources of dictator heterogeneity that are important factors in motivating the timing and magnitude of land expropriation. The first is the degree of information asymmetry between the dictator and the LO, which is greater when the dictator has not been able to signal his type previous to being launched into power. Dictators who were relatively more successful at currying the trust of the LO before reaching office might face less of an incentive to signal their loyalty through expropriation once they attain power. The second source of dictator heterogeneity is the magnitude of the coup hazard he faces, which is greater when the LO is a more cohesive group that can coordinate to overthrow the dictator more easily. These two aspects of dictator heterogeneity complicate causal inference since they may jointly determine whether the dictator expropriates or not as well as how long he lasts in office. Unfortunately, as researchers, we are not privy to the facts

required to measure either the information asymmetry between LO and PE or different levels of LO cohesiveness. We can, however, control for these differences implicitly if we control for leader fixed effects. Column 6 therefore estimates a conditional logit regression. The results on leader tenure strengthen both substantively and statistically, despite the fact that the observations for dictators who never expropriated land are dropped.

Empirical Implication 2: The Effect of Expropriation on Leader Exit

Table 2 indicates that dictators are most likely to expropriate early in their tenure, which we attribute to their need to signal their loyalty to the LO in an environment of acute uncertainty. But is a dictator who signals his loyalty to the LO through expropriation more likely to remain in office than a dictator who does not expropriate? This section addresses this question. The analysis centers on panel logit models. In most of the specifications we control for country fixed effects and in some for leader fixed effects. Robust standard errors are clustered by year to address contemporaneous correlation and heteroscedasticity. Following Carter and Signorino (2010), temporal dependence is addressed by including leader tenure, leader tenure quadratic, and leader tenure cubic.

A number of potentially confounding variables are also controlled for in the regressions that follow. Following Londregan and Poole (1990), we control for log(per capita income) and the *economic growth rate* (of per capita income %). We expect a negative sign for both. As per Smith (2004), we control for total resources income per capita and also expect a negative sign. Following Londregan and Poole (1990), we control for the coup trap hypothesis—the idea that the incidence of a coup in the near past fosters the reoccurrence of a coup. To operationalize this concept we code a running count of the number of coups based on the Archigos dataset (see Goemens et al., 2009) starting from the earliest available date (1875) or independence. We also control for *ongoing civil war* since land expropriation may be correlated with violent revolutions that can generate political instability. Finally, we control for whether the dictator in power is the head of a *military regime* since Geddes (2003) and Wright (2008) find that these leaders exit more rapidly than other types of leaders.[10] We lag all the independent variables 1 year to mitigate reverse causation.

Finally, to minimize bias across the models, we adjust the data set in several ways. First, we drop dictators who rose to power through autocoups—leaders who despite being fairly elected abrogated the constitution and

Table 3. Land Expropriation and Dictator Exit, Latin America, 1950–2002

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Type of exit	Any leader	Any leader	Any leader	Any leader	Irregular	Cluster exit	Any leader	Any leader	Irregular
Expropriation measure	Binary	Binary	Binary	Binary	Binary	Binary	Binary	Continuous	Continuous
Model	Logit	Logit	Logit	Logit	Logit	Logit	Hazard	Logit	Logit
Land expropriation	–0.841	–0.804	–1.204	–1.352	–1.341	–2.108	–0.853	–0.163	–0.16
	[2.12]**	[2.00]**	[2.49]**	[2.64]***	[2.38]**	[2.66]***	[2.45]**	[2.99]***	[2.95]***
Log(GDP per capita)	–0.184	–0.346	0.602	1.401	1.222	1.067	0.524	0.659	1.336
	[0.57]	[1.06]	[0.71]	[1.41]	[0.73]	[0.66]	[0.88]	[0.75]	[0.78]
Growth rate	0.045	0.04	0.032	0.04	0	–0.023	0.019	0.031	0.001
	[2.03]**	[1.74]*	[1.13]	[1.17]	[0.01]	[0.58]	[1.13]	[1.07]	[0.03]
Civil war	1.589	1.606	1.496	–0.42	1.64	0.253	0.645	1.556	1.724
	[3.56]***	[3.41]***	[2.28]**	[0.65]	[2.19]**	[0.36]	[1.77]*	[2.28]**	[2.22]**
Resources income per capita	0.41	0.48	0.758	1.473	2.084	1.754	0.246	0.622	2.148
	[1.34]	[1.51]	[0.78]	[2.09]**	[1.53]	[2.25]**	[0.39]	[0.69]	[1.53]
Coup count	0.057	0.044	0.11	2.338	–0.015	2.231	0.014	0.132	–0.014
	[2.27]**	[1.65]*	[1.07]	[1.80]*	[0.12]	[1.67]*	[0.21]	[1.29]	[0.11]
Military regime		0.589	–0.388	0.486	0.009	0.289	–0.04	–0.444	–0.051
		[2.05]**	[0.61]	[2.78]***	[0.01]	[1.56]	[0.11]	[0.70]	[0.07]
Temporal duration controls	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Country fixed effects	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	423	423	423	373	423	423	423	423	423

All independent variables lagged by one country-year except for land expropriation, which is lagged by one leader-year; in Model 6 land expropriation is not lagged. Robust z statistics clustered by year in brackets. Constant estimated but not reported; linear, quadratic, and cubic leader tenure counts estimated to address temporal duration not reported; country dummies estimated but not reported. Mexico dropped from Model 4. Hazard model passes the Cox proportional hazards assumption; coefficients rather than hazard ratios reported.

*Significant at 10%. **Significant at 5%. ***Significant at 1%.

disempowered other branches of government—since their activities as democratic leaders prior to becoming autocrats may have helped them extend their rule. Because there are only two cases of autocoups, however, the results are very similar if we include these leaders. Second, we drop all autocrats' first year of rule from the analysis, which means that we drop dictators who were in office less than 1 year. Because we lag our independent variables to mitigate potential endogeneity, we would otherwise erroneously attribute either expropriation to a leader who did not undertake it, or no expropriation to a leader who did in fact expropriate. If we nonetheless include the first year of rule (allowing for multiple failures per year), the results are unaffected. Third, to avoid left censoring, we include dictators whose rule was ongoing in 1950 and adjust their tenure and independent variables accordingly.[11]

Empirical Results

Table 3 presents the logit model results. Column 1 includes land expropriation as the measure of expropriation, as well as GDP per capita, economic growth, civil war, resources per capita, and prior coups. As expected, the leader expropriation dummy is negative and statistically significant. A dictator conducting large-scale land expropriation reduces the odds of exit the next year by 57%. This translates into a reduction in the predicted probability of exiting power by 10.2% (holding other covariates at their means and setting civil war equal to 0). Column 2 includes military regime, which is positive and statistically significant, as predicted. The statistical and substantive significance of land expropriation is largely unchanged.

Column 3 adds country dummies since unobserved country characteristics might explain both autocrats' propensity to expropriate land and their duration in power. The statistical and substantive effect of land expropriation on dictator duration increases. If a dictator engages in large-scale land expropriation the previous year, the odds that he will exit power the following year are reduced by 70%.

Robustness Checks on the Validity of the Model

We have argued that the PE and LO are usually distinct, leading to the prediction that expropriation by a dictator will elongate his tenure because it signals his loyalty to the LO (see Table 1). Yet we have not yet controlled for the degree to which the PE and LO overlap. The degree of overlap does not pose a significant problem, however. First, if the PE and LO perfectly overlap in some cases, resulting in long-term rule by a puppet dictator who

serves at the pleasure of the PE and does not expropriate, then this would bias *against* our results. Second, we estimated a series of conditional logit models that control for leader fixed effects and thus implicitly control for the degree of overlap between the LO and PE at the time a leader took power. As expected, the results for expropriation become even stronger.[12]

In column 4 we remove Mexico since the LO and PE were tightly coupled during single-party rule. Indeed, as our theory predicts (Table 1), in Mexico autocrats regularly replaced one another every 6 years. Moreover, an impressive record of land reform was conducted during this time. Excluding Mexico does not change the results: Land expropriation increases in statistical and substantive significance.

Additional Robustness Checks

Because dictators who stepped down from power may be systematically different from those who were overthrown, we now restrict attention to episodes where an irregular transfer of power occurs. The dependent variable in column 5, which also reintroduces Mexico, is now *irregular exit*, coded as 1 if the autocrat is (a) ousted in a coup or (b) assassinated or if (c) there is a transition to democracy. Although a total of 54 leader spells ended in a coup, 78 ended with an autocrat handing over power by stepping down. Land expropriation remains both statistically and substantively significant. As a final robustness check of the dependent variable, column 6 now measures autocratic survival as *cluster exit*, where we measure the duration of a discrete autocratic regime: a set of chronologically contiguous autocrats who are not interrupted by an irregular transfer of power. The results are again consistent with our theory.

In column 7 we return to any leader exit and attempt a different econometric strategy: a Cox proportional hazards model on the duration of leader tenure.[13] Column 7 has the same independent variables as column 3, including country dummies. Like in column 3, land expropriation is negative and statistically significant. Figure 2 displays survival estimates for dictators who engage in large-scale land expropriation versus those who do not, after fixing the statistically significant control variables from the regression at their averages. The cumulative survival rate of dictators who have not implemented large-scale land expropriation drops below 75% in just less than 3 years, whereas dictators who expropriated land reach this level only after 8 years.

In column 8 of Table 3 we substitute a continuous measure of land expropriation for the binary one we have been using thus far, therefore allowing us to see if marginal increases in the magnitude of expropriation above and beyond the 3% threshold further reduce the odds of a dictator exiting power.

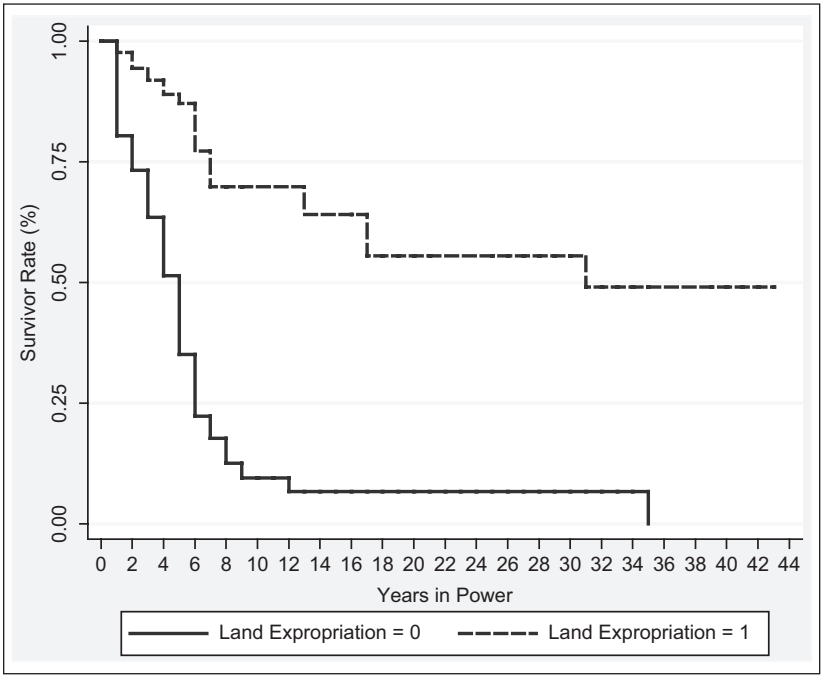

Figure 2. Survivor rate for Latin American dictators by land expropriation
Survivor rates calculated after adjusting for growth rate, civil war, coup count, and military regime.

The coefficient on land expropriation remains negative and statistically and substantively significant. In terms of the marginal effect, increasing the ratio of land expropriation to total cultivable land by 1% above the mean value (1.5) leads to a reduction in the predicted probability of exiting power by 2% (holding other covariates at their means). Column 9 repeats the same structure as column 8 but employs irregular exit instead of any leader exit, and the results are almost identical.

Table 3 provides strong evidence that land expropriation extends autocratic survival. However, we have not yet provided evidence in support of the claim that the mechanism linking land expropriation to survival is the dictator's ability to signal to his closest supporters that he is trustworthy through weakening the PE. Indeed, one can think of other political benefits linked to expropriation that may extend dictator survival. First, expropriation may raise revenues for the government, so that autocrats who expropriate land may avail greater revenues to increase repression or co-opt the opposition. Second, expropriation may allow autocrats to redistribute assets to potential supporters to buy support and forestall political change.

Resource Expropriations

How can we be sure that the association between land expropriation and dictator duration is working through the weakening of the PE rather than one of these other mechanisms? We attempt to rule out these alternative mechanisms by focusing on the expropriation of oil, natural gas, and mining corporations for two reasons. First, the alternative mechanisms of access to greater government revenues and access to rents that can be targeted to potential supporters are among the core objectives motivating a government's decision to expropriate natural resource firms. Second, this form of expropriation does *not* damage the preexisting domestic elite but instead hurts foreign investors. Therefore, if we find that the expropriation of natural resource firms is not correlated with dictator survival, we can have greater confidence that (a) we have ruled out these alternative mechanisms and (b) the mechanism suggested by our theory—the weakening of the PE—better explains this pattern.

Table 4 repeats the same specifications as in Table 3, except that natural resource expropriation replaces land expropriation. The first six specifications are logit models and the last one is a Cox proportional hazards models. Columns 3 to 7 again control for country fixed effects. The results corroborate our hypothesis: Although the coefficient on natural resource expropriation is negative and statistically significant at the 10% level in columns 1 and 2, it drops below conventional levels of statistical significance in all of the results that include country dummies. The Table 4 results increase confidence that the mechanism by which expropriation boosts the survival prospects of autocrats is by weakening the domestic PE—something that is not possible when foreign-owned firms are the ones being expropriated. It is less likely that it works via increased revenues or rents redistributed to supporters.

Banking Expropriations

We argue that although land expropriation is concentrated on taking the property of the domestic PE and therefore enervating their power, the expropriation of oil, gas, and mining firms primarily affects foreign investors. By extension, what links the expropriation of these two sectors—increased revenues and redistributable patronage—can be held constant while varying the signaling value to the LO. One might suggest, however, that the reason why we were unable to replicate the positive relationship between the expropriation of the landed elite and dictator survival for natural resources is because of some other difference between the agricultural and resource sector unrelated to whether it affects the domestic PE. To address this possibility, we now

Table 4. Resource Expropriation and Dictator Exit, Latin America

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Type of exit	Any leader	Any leader	Any leader	Any leader	Irregular	Cluster exit	Any leader
Specification	Logit	Logit	Logit	Logit	Logit	Logit	Hazard
Resource expropriation	−1.874	−2.049	−1.883	−2.308	−1.931	−0.49	−1.619
	[1.69]*	[1.72]*	[1.45]	[1.51]	[1.31]	[0.75]	[1.57]
Log(GDP per capita)	−0.104	−0.295	0.613	1.328	1.16	1.112	0.605
	[0.32]	[0.89]	[0.66]	[1.32]	[0.69]	[0.67]	[0.92]
Growth rate	0.057	0.051	0.035	0.036	0.011	0.002	0.026
	[2.59]***	[2.28]**	[1.37]	[1.35]	[0.42]	[0.07]	[1.70]*
Civil war	1.615	1.647	1.443	1.397	1.632	1.465	0.688
	[3.42]***	[3.29]***	[2.35]**	[2.27]**	[2.33]**	[2.19]**	[1.95]*
Resources income per capita	0.336	0.431	0.791	3.319	2.392	1.96	0.166
	[1.10]	[1.32]	[0.92]	[2.44]**	[1.68]*	[1.53]	[0.34]
Coup count	0.069	0.056	0.057	−0.113	−0.074	−0.056	−0.031
	[2.59]***	[1.98]**	[0.53]	[0.88]	[0.57]	[0.42]	[0.45]
Military regime		0.703	−0.128	−0.084	0.275	0.169	0.2
		[2.35]**	[0.19]	[0.12]	[0.35]	[0.22]	[0.55]
Temporal duration controls	Yes	Yes	Yes	Yes	Yes	Yes	No
Country fixed effects	No	No	Yes	Yes	Yes	Yes	Yes
Observations	423	423	423	373	423	423	423

All independent variables lagged by one country-year except for resource expropriation, which is lagged by one leader-year; in Model 6 resource expropriation is not lagged. Robust *z* statistics clustered by year in brackets. Constant estimated but not reported; linear, quadratic, and cubic leader tenure counts estimated to address temporal duration not reported; country dummies estimated but not reported. Mexico dropped from Model 4. Hazard model passes the Cox proportional hazards assumption; coefficients rather than hazard ratios reported.
*Significant at 10%. **Significant at 5%. ***Significant at 1%.

analyze the relationship between expropriation and autocratic survival in a different sector of the economy, the financial system, in which both foreign-owned and domestically owned banks operate. This therefore allows us to hold the economic sector constant. If the mechanism by which expropriation protracts autocratic survival is indeed the expropriation of the domestic PE, then it follows that although we should find a negative association between the expropriation of domestic banks and autocratic exit, this should not be the case for the expropriation of foreign banks.

Although we do not report the results of these regressions for lack of space, below we summarize the coefficients of interest for the most exacting specifications, where we measure the dependent variable as irregular exit (full results are available on request).[14] In a logit model that contains all of the control variables in previous tables plus country fixed effects, and where the independent variable of interest is *any bank expropriation*, a variable that does not distinguish between whether the banks were foreign owned or domestic, the coefficient is negative and statistically significant ($p < .05$). If an autocrat expropriates one or more banks, he reduces the odds of losing power by 90%. However, discriminating between domestic and foreign bank expropriation paints a more nuanced picture. Consistent with the theory, the result for any bank expropriation is driven by the expropriation of domestic banks. In a specification that includes separate terms for domestic bank expropriations and foreign bank expropriations, the coefficients for these two variables have opposite effects on the odds of survival. Domestic bank expropriation is highly statistically significant ($p < .001$). If one or more domestic banks are expropriated, this reduces the odds of autocratic exit by 100%. In terms of the marginal effect, there is a reduction in the predicted probability of exiting power by 25%, with a z statistic of –5.72 (holding other covariates at their means). Meanwhile, foreign bank expropriation is positive and highly statistically significant ($p < .001$). The results are materially the same using a Cox proportional hazard model.

In sum, autocrats who expropriate banks are, ceteris paribus, more likely to remain in power. This result is driven by the expropriation of domestic banks. The results are robust to different measures of the dependent variable as well as the estimation strategy. Furthermore, they provide additional evidence suggesting that the mechanism linking expropriation to autocratic survival is not the generation of higher revenues for the government or the increased rents that can be doled out to supporters. Instead, an autocrat enhances his likelihood of remaining in office through the powerful, informative signal he sends to his LO by expropriating the assets of the country's PE, significantly diminishing their economic and political power.

Empirical Implication 3: Temporal Effects in the Signaling Value of Expropriation

The results outlined above on the effects of both land and bank expropriations on leader duration indicate that autocrats who are able to demonstrate their commitment to their LO by expropriating the PE are more likely to remain in office than those who do not. But how does the signaling value of expropriation change over time? Once a leader evidences his reliance on the LO through expropriation, this should reduce uncertainty about his loyalty to them. Concomitantly, the salutary effect of expropriation on leader exit should decay over time. If, however, there seems to be no pronounced decay in the effect of expropriating on leader duration, but it is instead uniform over time, this would suggest that perhaps expropriation is not working through signaling to protract a leader's tenure but through some other mechanism.

Figure 3 visually depicts the signaling value of expropriation for leader tenure. It is based on the results from a series of dynamic logit panel models that employ the same controls as Table 3 and include country dummies. The figure indicates that the signaling value of expropriation decreases as a dictator remains in office longer. The solid line indicates the cumulative log odds ratio of leader exit for every lag length between one lag and four lags, with the total number of lags chosen by a series of Wald tests of joint significance. Odds ratios for each lag were calculated using a series of finitely distributed lag models with any leader exit as the dependent variable and the continuous measure of land expropriation as the independent variable. Figure 3 plots the cumulative log change in the odds of exiting power induced by a 1 percentage point increase in the ratio of expropriated land to total cultivable land above the threshold of 3% of cultivable land (i.e., within episodes of large-scale expropriation).

Figure 3 indicates that for leaders who have expropriated land above the 3% threshold, the likelihood of leader exit is statistically significantly lower for slightly more than 2 years after expropriation. Although the third and fourth lags are individually significant, the confidence intervals indicate that the cumulative effect of expropriation on the odds of exit is statistically indistinguishable from zero after 3 years. We surmise that the effect decays because after it becomes clear to the LO that the dictator is expropriating the PE in their favor and that it would be difficult to reverse policy, the signaling value of expropriation diminishes and other factors that may affect leader tenure become more relevant.

The statistical analyses have indicated that autocratic leaders may pursue expropriation at the outset of their rule to demonstrate loyalty to their LO and

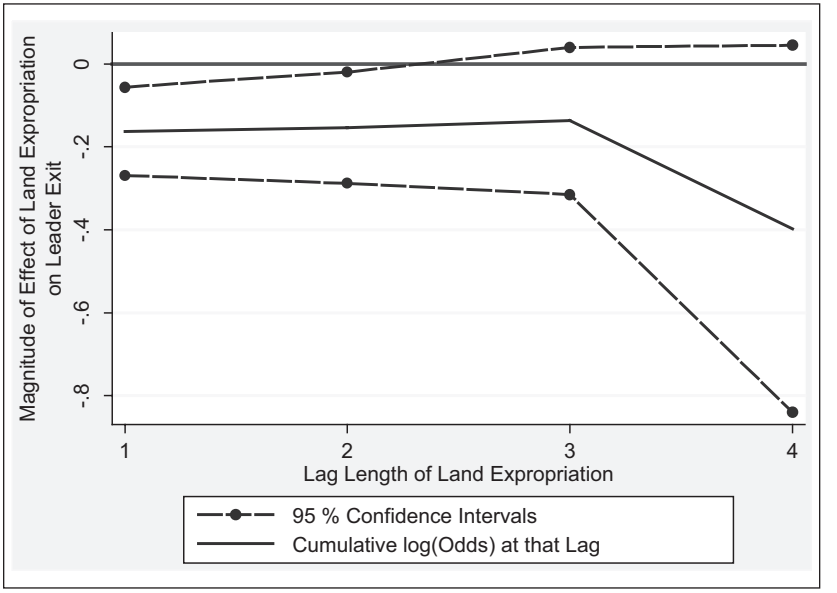

Figure 3. Rate of decay of signaling value of expropriation
These coefficients and their confidence intervals are calculated from four distributed lag models where any leader exit is the dependent variable, the continuous measure of land expropriation is the independent variable, and the lag length varies from one to four lags, with each entered jointly. Control variables are the same as in Table 2.

remain in office. They have also suggested that the signaling value of expropriation decays over time as uncertainty decreases and a new elite is established. However, although weakening the PE through expropriation may increase a dictator's support from his LO, it may simultaneously engender economic problems. The economy will start shrinking if property rights remain insecure. Restoring economic development will therefore be a priority to finance the political promises made to the LO. And once a dictator survives past the first stage of his rule marked by uncertainty about his intentions, he has to ameliorate the LO's concerns that they too can end up like the PE, landless and penniless. As a result, the dictator may need to set up institutions in which he can create a self-enforcing stake in the regime. Mexico's political history helps to address this point.

Postrevolutionary Mexico

Postrevolutionary Mexico is an illustrative example of large-scale expropriation of the PE undertaken by a dictator to signal his loyalty to the LO, followed

by a transition to a new property rights regime that transformed the LO into a new group of elites that became part of a stable autocratic dynasty. Plutarco Calles took power shortly after the Mexican Revolution. The members of his LO emerged from the three main factions that jockeyed for power during the Mexican Revolution after Porfirio Diaz relinquished power. The first faction consisted of small farmers from central Mexico who had lost their land during the Porfiriato. Meanwhile, the development of mining, railroads, and manufacturing under Diaz generated a powerful fledgling labor movement. Finally, because Diaz had favored an elite group of industrialists and bankers, a contingent of merchants, mine owners, and ranchers from Mexico's northern states, represented by Alvaro Obregón, opposed the monopoly rights granted to Mexico City's new power brokers.

In the wake of the revolution, Mexico cycled through a series of leaders who alienated one or more of these factions and consequently failed to consolidate power. But in 1924, Plutarco Calles rose to power as Obregón's handpicked successor through a stolen election that was orchestrated by Mexico's most important (national) labor organization (CROM), landless peasants, and the military's senior officers. For Calles to consolidate power and avoid rebellion, he had to send landless peasants, organized labor, and key military officers a costly signal that he would side with them. He did this by expropriating the PE.

Calles began to seriously implement agrarian reform by redistributing some 3.2 million hectares of land during his official term from 1924 to 1928, which placated the politically influential mobilized peasants. He also chose to tax the rich by adopting progressive taxation on individual income and corporate profits—the first Mexican president to do so. Finally, Calles appointed the head of the CROM as Minister of Industry, Commerce, and Labor. Increases in wages and benefits were then mandated for CROM workers. This strategy paid off: Calles proceeded to handpick several puppets as successors and ruled behind the scenes for 10 years.

Calles was willing to usher in a period of economic fallout precipitated by his expropriation of the economic elite that had been privileged under the Diaz regime, underscoring the fact that the expropriation of the PE was a costly and reliable signal of his loyalty to his LO. Investor wariness caused a steep, steady decline in economic growth shortly after Calles took power in 1924. Soon after Calles left office, however, economic growth recovered and began a stupendous rise that ended only in the early 1980s. Why did economic growth recover so strongly after an economic downturn catalyzed by the uncertainty engendered by expropriations, antagonism toward oligarchs, and tax increases?

Before voluntarily exiting power, Calles was able to fashion a corporatist arrangement that helped him make credible promises to the new economic elite

created by his policies (see Haber, Razo, & Mauerer, 2003). The pillar of this corporatist arrangement was the founding of the PRI by Calles in 1929. Calles invited influential generals, regional elites, nascent industrialists, and labor bosses to join his new political party, each of whom brought a vast network of political supporters with him. It is no surprise that the PRI soon monopolized Mexican politics and continued to do so for 71 years. The party transformed Calles's LO into a new elite through the reassignment of property rights to high-ranking officials and the funneling of patronage to the rank and file.

Conclusion

Why do some dictators expropriate their country's elite whereas others do not? We advance a theory of why dictators may have an incentive to destroy powerful elites, even if doing so stunts development. Expropriating the PE may help a dictator stay in power by signaling his reliance on the organization that launched him into office. Because the members of this powerful organization pose a threat to his rule if they remain uncertain about his intentions, expropriation of PEs demonstrates a dictator's loyalty. Concomitantly, it helps the dictator protract his rule. Using new data on land, resource, and bank expropriations in Latin America (1950–2002), we show that large-scale expropriation helps dictators survive, and not simply because expropriation frees up new rents. We also argue that after a dictator expropriates to survive the uncertainty that besets him upon taking power, he must find a way to guarantee the continued political relevance of the organization that brought him to power. Mexico's political history from 1911 to 2000 illustrates that large-scale expropriation followed by the construction of new property rights institutions aids dictators' political survival.

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Notes

1. Large-scale expropriations of land are those that exceeded 3% of cultivable land in any given leader year. This threshold best captures the cases considered as "major" in the land reform literature. Ahead, we explain how we code expropriations (for full details, see the online appendix, available at http://faculty.washington.edu/vmenaldo/Appendix_SignalingModel_CPS.pdf).
2. Velasco in Peru (1968) is a good example. In two exceptional cases, the coups that overthrew Allende in Chile and Arbenz in Guatemala, right-wing dictators were distinct from nascent elites who benefited from democratic leaders that had expropriated the oligarchy in their favor. As a result, both Pinochet in Chile and Castillo Armas in Guatemala are coded as expropriating *away* from the preexisting elite (PE) since they returned property from recent beneficiaries to former longstanding elites. Excluding or recoding these as cases without expropriation does not substantively change any of the results.
3. The online appendix is available at http://faculty.washington.edu/vmenaldo/Appendix_SignalingModel_CPS.pdf.
4. Signaling reliance on the launching organization (LO) would only occur if the LO can still threaten the dictator after he comes to power. Absent such a credible threat, the dictator could simply eliminate the LO.
5. However, in rare cases, the costs of expropriation relative to the risk of replacement do not enable differentiation between loyal and unloyal dictators through expropriation. For example, after the 1979 revolution in Iran, Khomeini had little choice but to expropriate the PE. Because the latter were beholden to the Shah, it would have been too costly *not* to have expropriated.
6. Of course, if we could control for these alternative motivations, then we could properly identify the signaling value of expropriation in these contexts. Doing so might yield propitious conditions for testing our theory: The PE was relatively strong in many postcolonial states outside of Latin America as well as distinct from the LO (we thank an anonymous reviewer for pointing this out). Future research might fruitfully explore the signaling value of expropriation for these postcolonial dictators.
7. Although in some cases of large-scale expropriation it is clear whether the owner was compensated, the majority of cases lack sufficient evidence. From a theoretical perspective, it would be ideal to distinguish between these given that expropriation with compensation should be a less risky and less costly signal, making it easier for dictators who do not intend to favor the LO over the PE to mimic. The task of determining compensation levels would be a valuable endeavor for future research on this topic.
8. We normalize by cultivable land to generate comparable cross-country data: Countries have different sizes and geographical topographies and thus different endowments of land that may be used for agriculture. Results also hold for

respecification of the definition of "large-scale" land expropriation. Both lower (2% and 1%) and higher thresholds (5%) yielded materially similar results (available on request). Few leaders expropriated land at the 1% level who did not do so at the 5% level as well.

9. Military regime is from Wright (2008). An online appendix has coding and sources for the other variables: http://faculty.washington.edu/vmenaldo/AM_Autocratic%20Survival%20Codebook_CPS.pdf.
10. See the online appendix for the coding and sources for these variables.
11. This reduces the number of observations in the regressions to 423 for 101 leaders.
12. We omit these regressions in the article because of space limitations; they are available on request.
13. Tests of the Cox proportional hazards assumption for each variable using the Schoenfeld residuals indicate that they satisfy the proportional hazards assumption. The results are nonetheless robust to several different parametric hazard models.
14. Unlike the models in which land expropriation and resource expropriation were the independent variables of interest, bank expropriation is measured as a dummy variable over the leader's entire tenure. If this variable is instead measured on a yearly basis and lagged by one period, it perfectly predicts leader survival because there was not a single autocratic exit the year following the expropriation of a bank.

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