

### Time and Regime Change

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### Abstract and Keywords

This chapter summarizes conclusions about the timing of regime change and focuses on transitions from authoritarian rule. After discussing the ways in which legislatures and parties are thought to extend the life of nondemocratic regimes, it argues that scholars have paid insufficient attention to the specific role of legislatures in authoritarian regimes in historical context. Conceptualizing regimes by combining information on electoral practices and legislatures, it explores temporal aspects of regime change and demonstrates the staying power of legislative authoritarian regimes. Contributions include providing an overview of the ways in which scholars have described temporal processes involving regime change and expanding our knowledge of the complementarity of political institutions in autocracies.

Keywords: regime, institution, parties, legislature, nondemocracy, survival

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Characterizing and explaining changes between regimes—comprising the questions of why and how the established systems that guide activity develop over time—represents a rather large and important research agenda across many disciplines in social science. A political regime refers to a set of institutions that create and enforce laws, which mediates between the economic and social realms. Though traditionally associated with formal mechanisms of government, regimes can also pertain to informal rules and norms, such as interpersonal trust. In political science, regime change represents the breakdown of an existing set of political institutions and the installation of a new one. The concept of regime change is inherently dynamic and intimately connected to the notions of process and time, connoting the replacement of one state by another.

A considerable amount of research in political science is devoted to analyzing and anticipating changes between regimes and institutions over time. It is not a unified topic; beyond having different conceptions of how to define regimes and which institutions matter, scholars have approached the question of time and regime change with different empirical goals and specified their relationship to time in various ways. I briefly summarize the ways in which time has featured in the study of regime change in political science by di-

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viding it into general features that scholars have aimed to understand and focusing on one dominant area of research.

My focus primarily concerns changes between and away from different forms of authoritarian regimes, highlighting institutional features that help to explain the survival of non-democracies and subsequent transitions. After discussing the ways in which institutions extend the life of autocratic regimes, I argue that scholars have paid insufficient attention to the historical impacts of legislatures on regime change. To that end, this study represents one way to build on the study of time and regime change, which involves focusing on the temporal dynamics of legislatures in nondemocratic regimes. Some of the contributions include providing a brief overview of how scholars have described temporal processes involving regime change and elaborating on a specific area—that of authoritarian institutions and regime survival.

The analysis touches on several different aspects of time and regime change, including history, the order and duration of political institutions, and time-varying factors that affect the likelihood of regime change. It encourages thinking about the independent effects of institutions in light of differences in organizational structure and political actors. The insight touched on here is that, because of the structure of the legislature—which entails individuals engaging in face-to-face negotiation over policy and benefits, and which promotes horizontal accountability between members—scholars should consider how legislatures may have independently affected the probability of regime change as a result of the type of regime opposition. This insight is intimated in arguments about “contestation-first” sequences of democratization, “limited-access orders,” and “pacted” transitions (Dahl, 1971; North et al., 2009a; O’Donnell et al., 1986).

## Characterizing Time and Regime Change

The ways in which the relationship between time and regime change has been addressed in political science can be divided into the basic elements of storytelling—who, what, when, where, why, and how? Organizing them in this way helps to tie together a diverse range of work on the subject and provides one schema for understanding how they fit together. First, scholars have approached the *what* question by describing patterns of regime change over time. The emergence of democratic regimes, in which a substantial portion of citizens directly or indirectly choose between politicians, is relatively new but has rapidly expanded in the last several hundred years. Scholars disagree, however, about what regime change has looked like over time.

One long-standing contention is that transitions to and from democracy are clustered in time and that the share of democracies in the world has followed a wave-like pattern (Doorenspleet, 2000; Strand et al., 2012; Huntington, 1991a, 1991b; Kurzman, 1998). Huntington (1991a, 1991b) argued that democratization historically occurred in three “waves”; the first wave began in the nineteenth century and lasted until the 1920s. The second wave was much briefer and followed the end of World War II, while the third wave persisted from the mid-1970s until the end of the Cold War. The observation of countries

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that were holding elections and initiating reforms in the 1990s led to considerable speculation over whether countries were democratizing or exhibiting a new form of authoritarianism, referenced by terms such as “illiberal democracy” and “competitive authoritarianism” (Levitsky and Way, 2002, 2010; Schedler, 2002). Subsequent analyses of democratization trends have raised the prospect of additional waves (Diamond, 2011; McFaul, 2002), and the empirical pattern has undergone criticism and debate (Doorenspleet, 2000; Strand et al., 2012). Other characterizations of global regime change described transitions to democracy as a standard pattern in which elites historically had the power to set the terms of competition and then later expanded the scope of participation (Dahl, 1971; Huntington, 1968; North et al., 2009a, 2009b).

The study of regime change and time has also explored the question of *who* is at a greater risk of regime change. Military dictatorships, for example, are more vulnerable to division over the dual tasks of controlling government and ensuring national security. To avoid risking a split in ranks, its leadership is more inclined to return to the barracks, for which they tend to be shorter-lived (Geddes, 1999, 2003). Others have pointed out the recurring threat of intervention by the armed forces in countries with a prior history of military governments, which partly accounts for the instability of presidential democracies relative to parliamentary regimes (Cheibub, 2006; Londregan and Poole, 1990; Lehoucq and Pérez-Liñán, 2014). Shared institutional histories and conditions between countries within the same region also informs *where* regime change has occurred over time, speaking to the reemergence of dictatorship in Latin America in the 1960s and 1970s (Valenzuela, 2004), electoral reforms in eastern Europe after the fall of the Soviet Union (Bunce, 2003; Epperly, 2011; Grzymala-Busse, 2002), and postcolonial outcomes in Africa (Bratton and van de Walle, 1994, 1997). Likewise, differences in the timing of democratization have been explained as the product of “diffusion” among regional neighbors (Brinks and Coppedge, 2006; Bunce and Wolchik, 2006; Gleditsch and Ward, 2006).

Another subset of research on the topic elucidates on *how* regime change unfolds by examining the internal dynamics and processes by which it has occurred. The uncertainty surrounding a transition affects the willingness of elites to support liberalization, which can be moderated by negotiated pacts and actors’ expectations of the future (Debs, 2016; Karl, 1990; O’Donnell et al., 1986; Stradiotto and Guo, 2010). To this end, scholars have debated the merits of promoting democratization as a sequence of particular events or through a series of gradual reforms (Berman, 2007; Carothers, 2007; Mansfield and Snyder, 2007). A quick break from the previous regime afforded by rapidly transitioning may be beneficial because it does not allow the prior elites to control the process and does not require the accommodation of authoritarian interests (Bunce, 2003; Munck and Leff, 1997; Share, 1987). One view emphasizes the impact of the process of regime change on future outcomes by portraying it as subject to *critical junctures* and *path dependence*—decision points that restrict the range of possible choices and make certain events more likely (Capoccia and Kelemen, 2007; Collier and Collier, 1991; Mahoney, 2001a, 2001b; Pierson, 2000). Insofar as the path of choices that actors take can have lasting effects on future outcomes, “out-of-sequence” or “ill-timed” transitions may be detrimental.

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A somewhat larger body of work examines the potential causes of regime change, both direct or indirect, whose effects are often time-dependent. A variety of factors have been put forward to explain *why* regime change occurs, which are divisible along two dimensions: external versus internal factors and historical versus contemporaneous factors. External historical factors include legacies created by geography and colonial history (Acemoglu, 2001; Møller, 2015; Pop-Eleches, 2007), while internal historical factors pertain to legacies left by previous social, institutional, and economic arrangements (Crawford and Lijphart, 1995; Epperly, 2011; Hicken and Kuhonta, 2011; Pop-Eleches, 2007). Both give weight to the “long shadow of the past,” which exerts a persistent influence on the likelihood of political stability over time.

Contemporaneous internal factors relate to present-day domestic features that shape the prospects for development and regime change. Within this, one major theme holds that the order of state-building explains regime stability; scholars have long underscored the consequences of administrative capacity and property rights for the development of modern governments (Acemoglu and Robinson, 2012; Besley and Persson, 2009; D’Arcy and Nistotskaya, 2017; Evans and Rauch, 1999; Fukuyama, 2012, 2014; North, 1981, 1990; Tilly, 1978). Another major theme is the importance of economic factors, which generally concludes that economic development does not make democratization more likely but enhances the stability of democracies once they have emerged (Boix and Stokes, 2003; Lipset, 1959; Przeworski and Limongi, 1997; Przeworski et al., 2000; Wucherpfennig and Deutsch, 2009), and that natural resource extraction is positively associated with the survival of authoritarian regimes and diminishes the prospects for successful democratization (Ross, 2001, 2004; Smith, 2004; Ulfelder, 2007). Other major themes on the time-variant determinants of regime change include social movements and conflict (Carey, 2006; Hale, 2013; Hegre et al., 2001; Hoover and Kowalewski, 1992) and the timing of elections (Brancati and Snyder, 2012; Joshi et al., 2017; Reich, 2001), which stress the relationship between protest and repression and the tenuous effects of early elections. Contemporaneous external explanations point to democracy promotion effects and exogenous shocks as potential causes of regime change over time (Beaulieu and Hyde, 2008; Gasiorowski, 1995; Teorell, 2010).

Finally, the question of *when* regime change is likely to occur has become increasingly relevant as scholars develop more sophisticated models to explain it. One example is efforts to develop predictive models of regime change (Schrodt and Gerner, 2000). Formal models of regime change, which offer abstract theories about the sequence of choices between actors, can also be included in this group of research (Acemoglu and Robinson, 2006; Boix, 2003). Contrasting the competing demands of a small number of actors—as the rich versus the poor or elites versus masses—they show that higher levels of inequality increase demands for redistribution but equip elites to resist it, and that democratization is the most likely outcome when its proponents are able to credibly threaten power-holders beyond their repressive capacity. Elsewhere, a number of studies use survival analysis methods to model the “risk” of regime change as a function of time (Alemán and Yang, 2011; Gasiorowski, 1995; Gates et al., 2006; Hegre et al., 2001; Stradiotto and Guo, 2010). Scholars aim to better explain when and how democracies become consolidated

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against failure as well how autocratic regimes manage to resist pressures for regime change (Diamond, 1999; Przeworski et al., 2000; Svobik, 2008, 2014; Ulfelder, 2007). In both cases, evidence suggests that “institutionally consistent” regimes are less likely to fail (Gates et al., 2006; Gurr et al., 1990).

This summary provides but one way to organize the multitudinous research on political regime change, all of which is interlaced with the concepts of process and time. Some of the broad insights encapsulated by this rich agenda include the observation that regime change has not been constant across history and geography; that the risk of failure is not the same for different types of regimes over time; that uncertainty shapes actors’ expectations and transition outcomes often depend on elite actions; that a host of factors, both external and intrinsic to the regime, affect the likelihood that it fails over time; and that the duration of time changes the propensity for future regime change. More conjectural ideas about time and regime change concern whether certain types of legacies and internal factors matter more than others and whether “successful” development depends on an as-yet unknown sequence of factors. Nevertheless, discourse in this area is attractive because it may help to identify strategies for stabilizing post-conflict outcomes, promoting democratic governance, and anticipating patterns of institutional convergence and divergence.

## Authoritarian Institutions and Regime Survival

Notwithstanding the areas in which research has elucidated time and regime change, there are plenty of ways that they can be improved on. One particular avenue concerns authoritarian institutions and the temporal context in which they occur. Scholars commonly differentiate between *types* of regimes, defining them by the set of institutions and practices on which they are based or the leaders that head them (Geddes, 2003; Geddes et al., 2014; Cheibub et al., 2010; Hadenius and Teorell, 2007). They assert that meaningful differences exist between governments run by a military officer or junta, as opposed to regimes ruled through hereditary succession or by political parties (Fjelde, 2010; Weeks, 2012; Wilson and Piazza, 2013; Wright, 2008). Different regime typologies and indices do not perfectly correspond to one another, but they share an interest in similar features (Coppedge et al., 2008; Wilson, 2014).

Extant scholarship on authoritarian institutions—distinguishable from democratic institutions by limits on contestation and participation—frequently cast them as the products of strategic choices by leaders. Scholars argue that autocrats adopt institutions such as parties and legislatures to safeguard their survival against domestic opposition. Parties and legislatures can help to reinforce dictatorship by distributing benefits and coordinating interests, co-opting actors and giving them a vested interest in the continuation of the regime (Gandhi, 2008; Gandhi and Przeworski 2006, 2007; Geddes, 2003; Magaloni, 2008). In doing so, they help to add credibility and legitimacy, enhance monitoring and information-gathering, and reinforce mechanisms of control (Boix and Svobik, 2013; Magaloni, 2008; Svobik, 2012). Similar arguments have been used to explain elections and

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courts in nondemocratic settings (Gandhi and Lust-Okar, 2009; Ginsburg and Moustafa, 2008; Solomon, 2007).

The argument that autocrats turn to parties and legislatures to safeguard against being removed from office obscures more nuanced dynamics, however, because the opposition that they face is rarely a monolithic actor. Such an argument assigns the same instrumentality to different options, treating them as synonymous, largely contemporaneous institutions. Critics have challenged such “functionalist” interpretations for explaining the timing of institutions (Pepinsky, 2014). There are several reasons to be skeptical that parties and legislatures are equally likely to emerge in authoritarian regimes. For one, the personal rents provided by participation in an authoritarian legislature make it unlikely that elites would compete within parties to represent them in the legislative arena. Rather, where inequality is high and power is asymmetrically distributed, the small pool of contenders should result in the most powerful individuals participating as independent “candidates,” for whom elections may not be necessary (Bueno de Mesquita et al., 2005).

Only when a greater number of individuals can credibly threaten the regime should formalized mechanisms for selecting representatives and distributing resources in the form of elections and political parties become essential, emphasizing a “shared threat” faced by elites through the forced opening of a “limited-access” order (Brownlee, 2007; North et al., 2009a, 2009b; Slater, 2010; Smith, 2005). It is also worth pointing out that political parties, which are defined by groups of people that seek to influence politics by promoting representatives to office, vary considerably in their size, strength, and influence. Though parties may have existed in name in many Latin American countries in the nineteenth century, for example, scholars agree that politics was largely restricted to a small number of elites. In this sense, the Liberal Party that enabled the rise of Porfirio Díaz in Mexico bore little resemblance to the Institutional Revolutionary Party that followed him (Garner, 2001).

What is more, the two institutions have not strongly covaried over time. This is illustrated by Figure 1, which compares the proportion of countries that had a legislature to the average level of party system institutionalization in each country, as indicated by the strength and depth of political parties (Bizzarro et al., 2017; Coppedge et al., 2018). As early as 1848, more than half of all countries coded by the Varieties of Democracy Project had a legislature but party system institutionalization was considerably low. The extent to which legislatures were historically observable and distinct from party activity is not well known, however.

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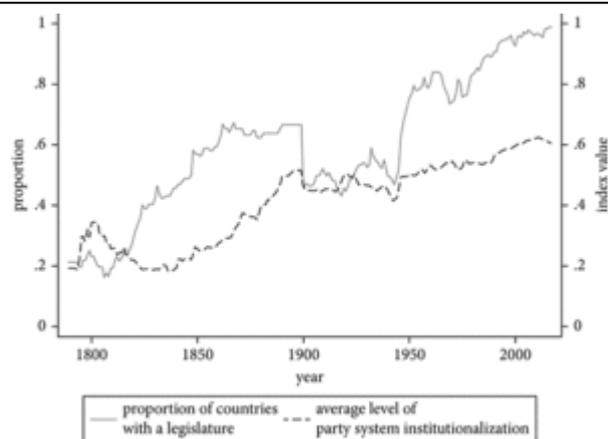


Figure 1: Trends in legislatures and party system institutionalization.

One reason that scholars of authoritarian institutions have not yet distinguished between parties and legislatures may be due to the fact that most regime-type datasets do not begin until after World War II. Examples are datasets created by Cheibub et al. (2010), Magaloni et al. (2013), and Geddes et al. (2014). In the postwar period nearly three-quarters or more of all countries had a legislature and truly closed autocracies were in the minority, making explaining transitions to electoral and party-based rule a more relevant goal for research on regime change. Notably, none of the aforementioned datasets account for legislatures in their categorization of regimes. An important question for those interested in explaining long-term patterns of regime change, however, is where authoritarian legislatures fit into the picture.

I argue that legislatures were observable prior to the introduction of political parties and elections not simply to legitimize the regime, but because power asymmetries did not necessitate the use of mass-based institutions to secure cooperation. As a forum for face-to-face interaction, the legislature—like cabinets and juntas—is an institution that can help to lower transaction costs, coordinate interests, and enhance monitoring. By promoting horizontal accountability among members, it adds credibility to agreements between elites, thereby helping to resolve the problem of “authoritarian power-sharing” (Svolik, 2012). In the past, the greatest challenge to rulers often came from the most powerful members of society, who were fewer in number relative to the larger population. To lessen uncertainty and resolve the coordination dilemmas between elites, institutionalizing their participation in government—or establishing direct links between patrons and clients—would have been a necessary component of state-building. To this end, legislatures could have provided an institutional basis for cooperation between elites that did not depend on parties and elections.

An outcrop of power-sharing arrangements between major powerbrokers, legislatures may have constituted a “stepping stone” between noninstitutionalized politics and the formation of additional political institutions such as political parties. As of yet, however, there is little research on the extent to which authoritarian legislatures were coterminous

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with parties and elections. One notable exception is Wright and Escribá-Folch (2012), who demonstrated that parties in authoritarian regimes increased the risk of a transition to democracy, while authoritarian legislatures decreased the risk of transition to another type of dictatorship. A valuable extension in the study of time and regime change, therefore, is to evaluate the independent impact of legislatures on nondemocratic transitions and to consider the role that they may have played in determining when regime change occurred in the past.

## Research Design

I test the notion that the timing of regime change differs depending on the presence of parties and legislatures in authoritarian regimes and compare between them. Like other formal political institutions, legislatures should help to add stability to nondemocratic regimes by co-opting opposition members, resolving coordination dilemmas, and enhancing the credibility of commitments made by the leader. On average, they should last longer than regimes that lack parties and legislatures. As a forum for horizontal accountability, authoritarian legislatures are particularly suited to reinforce coordination among elites as part of a “limited-access order” that excludes broader segments of society (North et al., 2009a). At the same time, they should also be less vulnerable to the demands for redistribution and inclusion that exert pressures to democratize, compared to more vertically oriented regimes that use parties and elections to maintain support (Acemoglu and Robinson, 2006; Boix, 2003; Lindberg, 2013).

Two hypotheses follow from this argument: first, nondemocracies with legislatures should, on average, last longer than those without them. This is because autocratic legislatures help to secure the cooperation of potentially destabilizing actors, particularly elites. Second, they should be more durable than regimes that also include parties and elections; where political parties are more pervasive and active, the effect of authoritarian legislatures on regime survival should diminish because of a greater involvement of nonelites. These expectations underscore the relationship between political institutions that were formerly presumed to occur in tandem and the evolution of institutions and dilemmas that have produced regime change.

To shed light on the timing of legislatures and their relationship to regime change over time, I utilize data created by the Varieties of Democracy (V-Dem) Project (Coppedge et al., 2018; Pemstein et al., 2018). The project is a collaborative effort involving many social scientists; surveying thousands of country experts, it uses measurement models to gauge the latent “score” for each question regarding many different aspects of democracy. The data are accessible in the form of a large dataset that comprises the period 1789–2017 for roughly 200 countries, enabling users to select from an assortment of components and compare them over time. In addition to providing broad coverage and highly disaggregated data, V-Dem thoroughly documents coding decisions and provides both point estimates and estimates of reliability for each indicator.

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The primary relationship that I test is that between institutions and duration—how long each state lasted over time. To do so, I draw on the Regimes of the World (RoW) measure included in the dataset (Lührmann et al., 2018). The measure purports to classify regimes according to the extent of competitiveness and liberal principles; it distinguishes between *closed autocracy*, where there are no elections held to select the executive or the legislature, and *electoral autocracy*, in which multiparty elections occur but are either not free and fair or not truly competitive. In contrast, *electoral democracy* is defined by free and fair multiparty elections, while *liberal democracy* adds executive oversight by the legislature and judiciary, rule of law, and the protection of liberties (Lührmann et al., 2018). The four “types” designated by the RoW measure are determined by a stepwise set of criteria based on the occurrence of elections, whether they are minimally fair and competitive, and additional liberal qualities (Coppedge et al., 2018; Lührmann et al., 2018).

As Lührmann et al. (2018) noted, the RoW categorization of democracy is a face-valid measure compared to other categorical measures of democracy; the number of observations coded as either electoral or liberal democracies denoted by the RoW measure corresponds to 99 percent and 98 percent of those coded as democracies by Boix et al. (2013) and Cheibub et al. (2010), respectively. It is also useful because it distinguishes regimes based on electoral practices, thereby separating nondemocratic regimes that permit elections to fill offices from those that do not. The measure is not strongly correlated with the designation of party-based authoritarian regimes—around half of single-party regimes identified by Geddes et al. (2014) and 72 percent of those indicated by Magaloni et al. (2013) fall into the category of closed autocracies. However, there is greater correspondence between observations that Magaloni et al. (2013) code as multiparty autocracies and electoral autocracies. The RoW measure is thus a better indicator of the use of parties and elections to manage competition in nondemocracies than of party-based rule.

The RoW measure applies absolute rather than relative standards regarding “free and fair elections” and “liberal principals,” which gives the impression of democracy as a relatively new phenomenon. As an example, the United States is coded as a closed autocracy between 1789 and 1795; it is also coded as an electoral autocracy until 1920, due to low scores on access to justice for women, and is not coded as a liberal democracy until 1969. Switzerland is coded as the first liberal democracy in 1849, followed by Australia in 1858 and Belgium and Denmark at the turn of the century. As a conservative estimator of “free and fair” elections RoW has the potential to understate the number of democracies in the world, but it nevertheless distinguishes countries based on multiparty elections. Like nearly every other indicator of authoritarian regime type, RoW does not denote the presence of a legislature. The omission is not an issue for electoral autocracies and democracies, as 96 percent or more observations covary, but only about half of all closed autocracies had a legislature.

Countries that did not hold multiparty elections to fill offices can be evenly split into those that governed with the help of a legislature and those that did not. Using information on legislative chambers, I therefore distinguished the presence of a legislature in each of the regime types. The sample consists of nearly 24,700 observations representing

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196 countries between 1789 and 2017, of which autocracies make up 77 percent; 18 percent of the sample had multiparty elections and a legislature but were not free and fair—I refer to these as *institutionalized autocracies*. Of the 59 percent of observations that did not hold multiparty elections, just over half did not have a legislature. I refer to the other 28 percent of observations, which had a legislature but did not hold multiparty elections, as *legislative autocracies*. Less than one percent of observations were coded as regimes that had multiparty elections and no legislature—I refer to these as *electoral autocracies* (0.64 percent) and *semidemocracies* (0.03 percent)—while missing values between states make up about 4 percent of observations.

Figure 2 shows the prevalence of each regime type between 1789 and 2017 as a proportion of the sample. For much of the nineteenth and twentieth centuries, the bulk of countries in the world either did not have multiparty elections or legislatures or eschewed the use of competitive elections to fill offices. In the latter half of both centuries, the most common type of regime was one in which multiparty elections were not held but a legislature existed. Not until the late-1980s did the proportion of countries that held multiparty elections surpass those that did not. Figure 3 depicts institutional changes by stacking the institutional trajectory of each country on top of one another, such that each line represents the pattern of one country in the sample. As the figure illustrates, almost all transitions from closed autocracy to multiparty elections involved a period of legislative autocracy. A visual inspection of the figure also suggests that closed and legislative autocracies tended to last longer than those that also held multiparty elections. This observation supports the notion that limited-access orders or elite pacts constituted an important step to more competitive institutional settings, in line with depictions of “contestation-first” patterns of political development (Dahl, 1971; Huntington, 1968; North et al., 2009a, 2009b; O’Donnell et al., 1986).

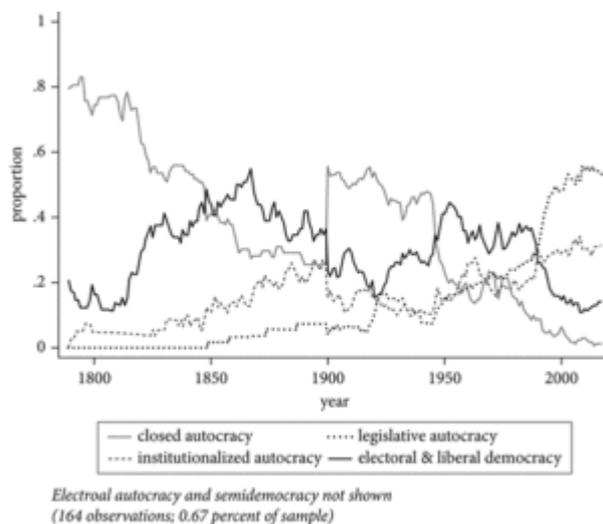


Figure 2: Proportion of institutional states over time.

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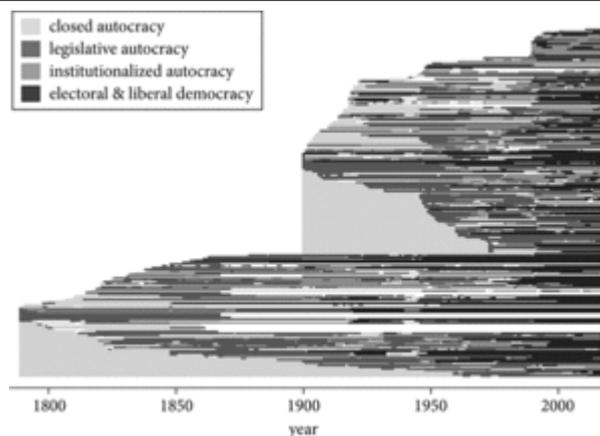


Figure 3: Sequence index plot of institutional states over time.

Distinguishing between regimes based on multiparty elections and legislatures enables me to test the independent effects of legislatures in contexts that lack competition between parties. It is, however, a poor proxy for party-based regimes that do not allow multiparty competition. To separate out the impact of authoritarian legislatures in regimes in which a ruling party helps to moderate threats to the regime, I include the party institutionalization index created by V-Dem, which combines information on the extent to which parties are organized, cohesive, and connected to civil society (Bizzarro et al., 2017; Coppedge et al., 2018). Many well-known one-party states, such as the Institutional Revolutionary Party (PRI) in Mexico or the Botswana Democratic Party (BDP) in Botswana, score high on the party institutionalization index. Furthermore, it is not strongly correlated with the effective number of cabinet parties, nor with the degree of national party control. I expect that greater party system institutionalization—which is indicated by the index—increases the risk of regime failure in legislative autocracies. In robustness tests, I compare the effects of replacing the measure of party institutionalization with measures of civil society participation and national party control to account for the bridge that political parties serve to greater citizen involvement and the ability of one party to maintain power in the face of it. Given the rather strong correlation between electoral democracy and party system institutionalization, I also compare the effect of adding the electoral democracy index to the model.

The survival of regimes can be explained by a number of factors that are not related to the institutions in place. I therefore consider several different features as possible control variables. To account for the potential impact of wealth and population pressures on regime change, I included values of per capita GDP and population originally provided by Gleditsch (2002). Fariss et al. (2017) corrected and imputed the estimates to mitigate measurement error and biases due to sample selection. I also included a measure of a country's oil reserves as a control for the effect of natural resource wealth on regime survival (Ross 2001). I denoted the occurrence of civil wars, which have the capacity to destabilize regimes, by including a dummy for internal domestic conflicts that reached a threshold of 1,000 or more battle deaths each year. The estimates for both oil reserves

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and civil war were coded by Haber and Menaldo (2011) and provided by the V-Dem dataset (Coppedge et al., 2018; Pemstein et al., 2018).

The probability of regime change may be influenced by prior instability and historical institutional legacies, as well as changing environmental conditions. As such, I included a count of the number of prior regime changes observed in each country and controlled for the year. I also considered neighborhood and diffusion effects by controlling for the region of the world; specifically, I indicated regional pressures to democratize by including the average level of democracy in each region, as measured by V-Dem's electoral democracy index (Coppedge et al., 2018; Pemstein et al., 2018; Teorell et al., 2016). Using the stepwise selection procedure recommended by Hosmer et al. (2008), I compared the impacts of each covariate on model fit and show the results of the best-fitting model. In robustness checks, I compared models with country- and year-fixed effects to mitigate the potential for omitted-variable bias by controlling for unit-specific attributes.

I focus on the time to regime change—the effect of institutions on the duration of regimes—as opposed to how the timing of factors affects the type of regime that follows or the order in which regimes change over time. The dependent variable is a count of the number of years that each state persisted, with regime failure denoted by a change in state. Using event history analysis—also called duration or survival analysis—I compare the hazards of regime change, or the survival rates of regimes, based on the counts of how long each set of institutions lasted. Figure 4 shows the estimated survival rates for each of the regime types. For simplicity, I omitted the few observations of multiparty autocracy and democracy that were coded as not having a legislature. According to the figure, democracies are the longest lasting, while closed autocracies and legislative autocracies appear to have roughly similar survival rates. Compared to them, institutionalized autocracies have shorter survival times. A log-rank test for the equality of survivor functions, in addition to signed-rank tests for pairs of regime types, confirms that the risks of failure differ across each institutional state.

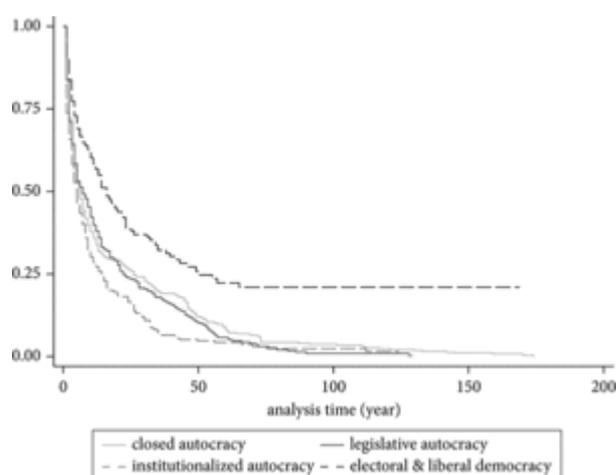


Figure 4: Survival estimates, by institutional state.

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As is true of all statistical models, model choice depends on assumptions about the nature of the data. One assumption is that the time in which failures occur is continuous, such that the timing of almost all failures is unique. Although the data that I use occur in yearly intervals, I treat regime duration as continuous and compare the results to discrete-time models as a robustness check. Many models, such as the Cox proportional hazards model, assume that the effect of a covariate on the likelihood of failure is multiplicative, or constant across time. Testing the proportional-hazards assumption indicates that this has been violated. As a result, I estimate a parametric model that specifies a distribution for the baseline hazard function but allows survival times to accelerate or decelerate. Comparing the fit of different parametric models suggests that the log-normal distribution best characterizes the shape of the survivor function. Although censoring—the loss of participants or conclusion of observation before all spells have been completed—sometimes presents an issue, parametric approaches are able to incorporate information from censored observations. I nevertheless compare models with and without right-censored spells as a robustness test. In the following section, I describe the results.

## Results

The initial sample included 1,714 regime spells between 1789 and 2016. In unrestricted models that did not include other covariates, the results suggested that closed autocracies were not differentiable from legislative autocracies but that autocracies with legislatures and multiparty elections had significantly higher hazards of failure. Among the 265 failures that transitioned to democracy, closed autocracies had significantly lower hazards and institutionalized autocracies significantly higher hazards of failure than legislative autocracies. In contrast, closed autocracies were not more or less likely to fail to another form of autocracy than legislative autocracies, while institutionalized autocracies showed significantly lower hazards of failure.

Comparing the effect of adding and removing individual covariates from the model as a diagnostic for determining the appropriate specification indicates that five control variables have the biggest impact on the model: per capita GDP, civil war, geographic region, regional levels of democracy, and the number of previous transitions. Due to listwise deletion from missing values in the control variables, however, the resulting sample includes roughly 13,000 observations that correspond to 1,200 regime spells over 161 countries between 1816 and 2006. This specification makes a dramatic improvement on model fit despite its impact on the size of the sample and the degrees of freedom. These results are shown in Table 1; models 1 and 2 compare all failures, with and without the addition of party system institutionalization, while models 3 and 4 respectively differentiate between failures to democracy and nondemocracy.

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Table 1: Duration Model Estimating Survival Times, with Log-Normal Distributed Hazards

	(1)	(2)	(3)	(4)
	All transitions	All transitions	Dem. transitions	Nondem. transitions
Closed autocracies	-0.497	-0.750	7.417	-0.811
	(0.112) <sup>***</sup>	(0.184) <sup>***</sup>	(452.033)	(0.182) <sup>***</sup>
Legislative autocracies	<i>(reference category)</i>			
Electoral autocracies	-1.590	-1.589	6.578	-1.766
	(0.139) <sup>***</sup>	(0.159) <sup>***</sup>	(478.788)	(0.156) <sup>***</sup>
Institutionalized autocracies	-0.141	-0.089	-2.141	0.235
	(0.098)	(0.105)	(0.400) <sup>***</sup>	(0.106) <sup>**</sup>
Semidemocracies	-1.398	-1.371	-0.889	-2.015
	(0.558) <sup>**</sup>	(0.577) <sup>**</sup>	(1.281)	(0.601) <sup>***</sup>

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Electoral democracies	0.672	0.719	0.760	0.501
	(0.156) <sup>***</sup>	(0.170) <sup>***</sup>	(0.498)	(0.179) <sup>***</sup>
Liberal democracies	2.740	2.871	4.635	2.015
	(0.281) <sup>***</sup>	(0.303) <sup>***</sup>	(0.745) <sup>***</sup>	(0.353) <sup>***</sup>
Missing values	-0.702	-0.622	6.937	-0.308
	(0.319) <sup>**</sup>	(0.520)	(1789.858)	(0.502)
Geographical region	<i>(omitted for space)</i>			
number of previous states	-0.017	-0.016	-0.085	-0.014
	(0.007) <sup>**</sup>	(0.008) <sup>**</sup>	(0.022) <sup>***</sup>	(0.008) <sup>*</sup>
Regional democracy	-0.483	-0.185	-4.941	1.367
	(0.374)	(0.424)	(1.093) <sup>***</sup>	(0.453) <sup>***</sup>
GDP p.c. (real, 1996 values)	-0.056	-0.012	-0.730	0.189

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	(0.058)	(0.065)	(0.211) <sup>***</sup>	(0.067) <sup>***</sup>
Civil war	-0.147	-0.154	0.661	-0.321
	(0.116)	(0.133)	(0.513)	(0.133) <sup>**</sup>
Party system institutionalization		-0.502	-5.320	0.293
		(0.215) <sup>**</sup>	(0.766) <sup>***</sup>	(0.222)
Intercept	2.434	2.271	16.540	0.155
	(0.475) <sup>***</sup>	(0.525) <sup>***</sup>	(1.892) <sup>***</sup>	(0.544)
ln(sigma)	0.175	0.206	0.612	0.179
Subjects	1195	1035	1035	1035
N	12842	10894	10894	10894
Log-likelihood	-1710.6	-1401.3	-401.6	-1183.1

*Standard errors in parentheses.*

$p < 0.01$  (\*\*\*) ;

$p < 0.05$  (\*\*) ;

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$p < 0.10$  (\*)

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According to model 1, closed autocracies have significantly higher risks of failure than legislative autocracies, while institutionalized autocracies are not statistically differentiable. Accounting for party system institutionalization sharpens the distinction between legislative autocracies and closed autocracies, while reducing the difference between legislative and institutionalized autocracies (model 2). This observation confirms the value of accounting for party control in autocratic environments, which increases the hazards of regime failure. There is little evidence to suggest that any of the covariates exert a statistically significant impact on the timing of all types of regime change, with the exception of the number of previous failures.

Among transitions to democracy, as shown in model 3, autocracies with legislatures and multiparty elections are at a significantly higher risk of failure than legislative autocracies. The hazards of democratizing show differences by region; more importantly, perhaps, the average level of democracy in the region exerts one of the largest impacts on the time to failure that resulted in a democracy. Greater party system institutionalization strongly increases the risk of a transition to democracy, an effect that holds despite controlling for the level of electoral democracy. Higher levels of per capita GDP also increase the risk of a transition to democracy, as does a greater number of previous transitions.

Model 4 shows that for regime failures that were followed by autocracy, closed autocracies have a significantly higher risk of failure and institutionalized autocracies have a significantly lower risk of failure than legislative autocracies. Both electoral and liberal democracies, by contrast, are significantly associated with lower hazards of transitioning to autocracy, the estimates for which differ considerably between them. There is little evidence to suggest that there are regional differences in the failure rate to autocracy, although the average level of democracy in the region significantly decreases the risk of failure. Higher income also makes failure to autocracy less likely, while civil war increases the hazards of regime failure followed by an autocratic regime. Party system institutionalization does not seem to significantly impact the risk of regime failure followed by an authoritarian regime.

Using different techniques for determining model fit based on residuals, or the differences between predicted and observed duration of spells, suggests that the model is appropriately specified and that it is not strongly influenced by particular observations. A plot of the Cox-Snell residuals shows a fairly straight line with a slope equal to one, which worsens when I remove or add controls to the model. Plotting the score residuals shows variation in influence, with a few observations exerting a disproportionate amount; the results do not change, however, if I omit more influential observations. Based on martingale residuals, each covariate appears to be in their appropriate functional forms. Comparing models with and without robust standard errors also provides support against model misspecification (King and Roberts, 2015).

I obtain similar results when I estimate the models as discrete-time survival models, as well as when I omit right-censored spells. Likewise, the results are similar when I include fixed effects or include year trends. The directional relationships between closed, legisla-

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tive, and institutionalized autocracies are also the same when I estimate failures to democracy and autocracy as competing risks. Recognizing that some leaders rule with smaller support coalitions and that personalism is a distinguishing trait of many regimes, I ran the same models estimating the length of time that executives remained in office. I found similar relationships, with two exceptions: GDP no longer has a significant impact on the hazard of failure, and both closed and institutionalized autocracies show higher hazards of failure resulting in autocracy than legislative autocracies. Thus, compared to autocracies with neither institution or to those that also rely on multiparty elections, legislatures in autocracies appear to last longer and also to support the longevity of authoritarian leaders.

When I replace the measure of party system institutionalization with an index of civil society participation, the results are similar. However, including an interaction between the two suggests that party system institutionalization in environments with a weak civil society significantly lower the hazards of failure, and that the combined effect of party system institutionalization and civil society participation strongly increases the risk of regime failure. In contrast, a high level of national party control lowers the risk of failure, the effect of which is reinforced by a more institutionalized party system. Notably, they work in different ways—civil society participation in more institutionalized party systems lowers the risk of failure to a democracy, while national party control in more institutionalized party systems lowers the risk of failure to an autocracy.

## Discussion

Figures 5a and 5b, respectively, display the estimated cumulative hazards of transitioning to democracy or autocracy by regime type. Compared to closed autocracies and legislative autocracies, the timing of transitions to a democracy were much shorter for those that also held multiparty elections. Conversely, closed autocracies that transitioned to another form of autocracy had shorter life spans than either legislative autocracies or regimes that had legislatures and multiparty elections. Nondemocratic regimes characterized by a legislature but not competitive elections between parties seem to occupy the middle ground between the two risks. Though this may be attributable to the potentially destabilizing impact of holding competitive elections—even if they are rigged in favor of the incumbent—the difference between regimes rests in part on the existence and strength of a political party. This is made apparent by controlling for party system institutionalization, in which case the difference in risks between legislative and institutionalized authoritarian regimes diminishes and the difference between legislative and closed autocracies is sharpened by a similar degree.

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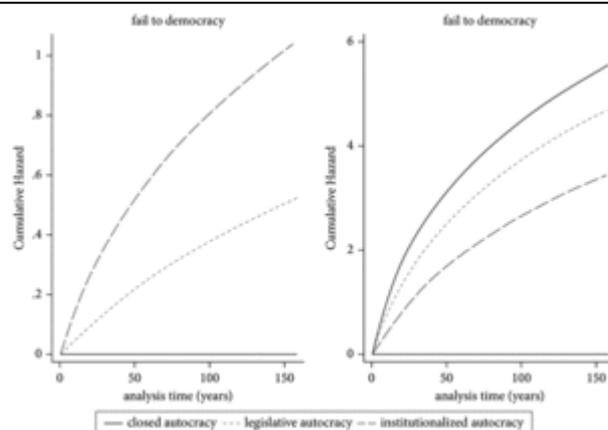


Figure 5: Cumulative hazards of regime failure, by failure type.

The level of party entrenchment thus seems to explain a lot of the difference between competitive authoritarian regimes and those with legislatures. Accounting for party system development also makes it clear that legislatures independently promote the longevity of authoritarian regimes. This finding is in line with that of Wright and Escribá-Folch (2012), who concluded that parties in authoritarian regimes make a transition to democracy more likely and that legislatures help to decrease the risk of a transition to another form of nondemocracy. Thus, an important takeaway is that legislatures may have an independent effect on the timing of authoritarian regime survival, which I argue depends on the type of opposition and the institutions that arise to accommodate them.

The additional covariates that best explain the timing of regime change and contribute to a better fitting model also provide valuable insights that speak to extant research on the topic. For one, the number of previous states is robustly associated with shorter survival times. Whether couched in discussions of the well-known “coup trap,” the perils of off-path institutional trajectories, or conflict recurrence, countries that had a history of more numerous institutional changes tended to be shorter lived. Civil war, in particular, increased the hazards that a country failed in a given year and was replaced by an autocratic regime. The democraticness of a country’s neighbors—represented by the average level of democracy in each region—was strongly associated with shorter survival times for transitions to democracy and longer survival times for failures to autocracy. This finding gives some validation to arguments that democracy has geographical diffusion effects and that a country’s neighbors matter. Additionally, separating transitions to democracy from those to autocracy implies that higher income levels increase the risks of transitioning to a democracy and decrease the likelihood of being replaced by an autocracy. Though they do not resolve the issue of endogeneity between democratization and wealth, the results point to a beneficial effect of income. The ancillary findings highlight a handful of factors that, along with political institutions, interact with time to produce an impact on regime change.

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The empirical models of regime change presented here are quite simple. On the one hand, I interchanged other covariates such as natural resource wealth and population to identify the most parsimonious and best-fitting model. On the other hand, data limitations stemming from missing values required judiciousness to preserve as many episodes as possible. Evaluating the strength of the relationships that I identified entailed trying different model specifications and testing some of their assumptions. One critical assumption is that the spells in the sample are independent, which I dealt with by controlling for prior transitions and including unit effects. An estimation approach that allows multiple failures to occur may be preferable. In addition to identifying other factors that affect regime change and exploring how well the findings travel across space and time, additional improvements include accounting for shared frailties between subjects in the sample and estimating multistate models. Notwithstanding potential corrections to more precisely detail the relationships, this demonstrates one way that time affects regime change.

Understanding the complex way in which time moderates the likelihood and aftereffects of regime change is supported by data and research that covers a broader period of time. Moreover, identifying the instrumental value of institutions in the past—and differentiating between them—can help to inform contemporary knowledge about regime dynamics that involve parties and legislatures in nondemocracies. Legislatures may not fulfill the same function now due to the increased presence of parties and to democracy promotion efforts, but historical patterns of regime change may be explainable by an approach that emphasizes their role in promoting horizontal accountability between elites. Focusing on differences between institutions based on horizontal versus vertical accountability could be useful for future work on the topic of regime change and postconflict governance.

## Conclusion

Of the many ways that time impacts regime change, one is through political institutions—they help to resolve dilemmas associated with governance, making it more or less likely that a regime can successfully handle opposition and persist. The goal of the analysis presented here was to explicate this particular relationship between time and regime change by exploring the way in which institutions help to extend the life of nondemocratic regimes. The idea that autocrats benefit from features such as parties, legislatures, elections, and courts is not new, but constitutes a major area of work on authoritarian regimes (Brownlee, 2007; Gandhi, 2008; Slater, 2010; Svobik, 2012). Though it is clear that such institutions differ from their democratic counterparts, a less understood question within this research is how authoritarian institutions differ in terms of their ability to co-opt, coordinate, and sustain. An important but understudied distinction is legislatures and parties, which have different organizational structures and means of accommodating opposition. The main takeaways are that (1) legislatures and parties in autocracies do not serve the same purpose in democracies, (2) the functions of each institution may be different because of the way in which they support power-sharing and co-optation, and (3)

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the instrumental value of institutions and the successfulness of regimes may vary over time.

Expounding on the historical impacts of political institutions is important because it helps to disentangle their roles in less-democratic contexts from the role that they play in more institutionalized, democratic contexts. Furthermore, identifying the ways in which such institutions may have differed in sustaining nondemocratic regimes may help to distinguish between vertical and horizontal accountability mechanisms that resolve common dilemmas. As I have argued, legislative autocracy is related to horizontal accountability and elite pacts that historically characterized state-building and patterns of regime change. This touches on the various elements invoked by scholars to explain regime change and underscores their relationship to time, including order, duration, and historical occurrence. It illustrates just one facet of the way in which time and regime change are interconnected, however. The study of regime change is almost wholly dependent on an understanding of process and time. Beyond this area of research, a variety of temporal aspects shape the political contexts that determine a large number of important outcomes (Grzymala-Busse, 2011; Pierson, 2000, 2004).

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