Institutional characteristics and regime survival: Why are semi-democracies less durable than autocracies and democracies?*

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Abstract

Previous studies report that semi-democratic regimes are less durable than both democracies and autocracies. Still, mixing democratic and autocratic characteristics need not destabilize regimes, as three highly plausible alternative explanations of this correlation remain unaccounted for: i) semi-democracies emerge under conditions of political instability and social turmoil; ii) other regime characteristics explain duration; iii) extant democracy measures do not register all regime changes. We elaborate on and test for these explanations, but find strikingly robust evidence that semi-democracies are inherently less durable than both democracies and autocracies. "Semi-democracies are particularly unstable political regimes" should thus be considered a rare stylized fact of comparative politics. The analysis yields several other interesting results. For instance, autocracies and semi-democracies are equally likely to experience "liberalizing" regime changes more specifically, and once accounting for differences in degree of democracy, there is no robust evidence of differences in duration between military and single-party regimes.

1   Introduction

Gurr (1974) reported evidence that political regimes combining democratic and autocratic institutional characteristics are relatively short-lived. More recent studies have confirmed that such regimes are clearly less durable than both democracies and autocracies (e.g. Epstein et al. 2006; Gates et al. 2006; Goldstone et al. 2010). Hence, there exists an indisputable correlation between having "inconsistent", "mixed", "partial democratic", or "semi-democratic" characteristics and short regime durability, even when controlling for factors such as income level and time-specific effects.[1] Yet, do semi-democratic institutional characteristics actually have a *causal impact* on regime survival? In extension, did autocrats such as Mobutu in 1990s-Zaire or Friedrich Wilhelm IV in 1848-Prussia grossly miscalculate when they – arguably in order to stay in power – liberalized? If introducing democratic institutions in otherwise authoritarian regimes harms regime survival, "why would any incumbent create or tolerate them" (Gandhi 2008, xvii)? In fact, we do not *know* whether the relationship between semi-democracy and short durability is causal; previous studies have failed to account for three very plausible alternative explanations of the observed correlation. Below, we elaborate on and empirically account for these three explanations:

First, semi-democratic regimes may *result* from processes of social unrest and political conflicts, such as opposition groups forcing dictators to partially liberalize. Young semi-

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[1]Although we recognize the conceptual nuances and measurement differences between different studies, we mainly refer to regimes with a fairly balanced mix of democratic and autocratic characteristics as 'semi-democracies' below. In contrast with, e.g., Przeworski et al. (2000) we consider democracy a graded phenomenon. Yet, to simplify discussion and analysis, we often sub-divide the dimension according to thresholds. Hence, 'democratic regimes' is shorthand for 'regimes that score above a certain threshold on degree of democracy'. We denote regime changes towards more democratic forms as 'liberalizing', and towards less democratic as 'de-liberalizing'.

democracies may last briefly not because of any inherent regime-institutional characteristics, but rather because the turbulent, latent political and social environments they are born in are hostile to the survival of *any* regime. *Second*, a large literature indicates that other regime characteristics – e.g. military involvement in politics, dynastic succession, or regime parties – are highly consequential for regime-survival prospects. These characteristics may, for some reason, be correlated with degree of democracy, generating a spurious relationship between semi-democracy and regime durability. *Third*, extant democracy indices often fail to pick up further liberalization in relatively democratic and de-liberalization in already autocratic regimes, whereas liberalizing *and* de-liberalizing regime changes are measurable for all semi-democracies. Consequently, previous studies may have overestimated the durability of autocracies and democracies.

Given these plausible alternative explanations, the shorter durability of semi-democracies reported in previous studies may merely reflect a correlation, and semi-democratic institutional characteristics need not *cause* regimes to break down faster. However, the main result from our analysis below – accounting for the alternative explanations – is that semi-democratic regimes *are* inherently less durable than autocracies and (particularly) democracies. Despite our strenuous efforts, we are simply unable to "break" the result that regimes combining democratic and autocratic characteristics have shorter life expectancies; the evidence strongly suggests the relationship between regime-institutional characteristics and regime durability is causal after all. Given the general lack of robust relationships between macro-variables in political science, this is a notable result.

Below, we first review literature on regime-institutional characteristics and regime durability, before discussing and empirically accounting for the three alternative explanations. To ensure consistency – between our different specifications and with the literature – our models expand, adjust, and elaborate on the duration model set-up in Gates et al. (2006). Our findings do not, however, rely on this, but hold when employing alternative specifica-

tions. We find robust evidence that semi-democracies are short-lived, even when accounting for the above-mentioned sources of bias. Also when distinguishing *different* semi-democratic types – according to executive recruitment, participation and executive constraints – our results suggest that previously established correlations between particular regime types and durability reflect causal relationships. Nevertheless, we identify one important (general) nuance; semi-democracies are as resilient to *liberalizing regime changes* as autocracies are. Our analysis yields additional results of interest to comparative politics scholars: "Competitive authoritarian regimes" are neither more nor less durable than other non-democracies (see also Brownlee 2009). Furthermore, when accounting for differences in degree of democracy we do not find robust evidence that single-party regimes are more durable than personalist or military (cf. Geddes 1999).

2 Institutional characteristics and regime stability

Gurr (1974) found that consistently democratic and autocratic polities were more durable than polities with mixed authority characteristics. He interpreted this as supporting the "Congruence–Consonance Theory" in Eckstein (1973); political institutions perform better if their authority patterns are congruent with those of social institutions, and, importantly, if they are internally consonant. More recently, Gates et al. (2006) reported evidence that 'inconsistent' regimes are less durable than both full democracies and full autocracies – despite also identifying differences in durability between different kinds of semi-democracies – arguing that democracy and autocracy constitute self-enforcing equilibria whereas semi-democracy does not. Semi-democracies lack the concentration of power and authority providing stability in autocracies, but they do not provide the incentives for governments to voluntarily cede power, or for people to support the regime, that democracies do either. Moreover, Epstein et al. (2006) find that 'partial democracies' are more volatile than both democracies and autocracies; changes either to or from the former category constitute 80% of regime changes

in their global (1960–2000) sample. They underscore the importance of appreciating the dynamics of semi-democratic regimes (e.g. for democratization processes) and the distinctiveness of such regimes from both autocracies and democracies. Indeed, they highlight how poorly understood such regimes – in particular their short durability – actually are.

Several contributions discuss the impact of introducing *particular* (nominally) democratic institutions, such as multiparty elections or legislatures, in otherwise autocratic regimes. Schedler (2002b) notes that introducing (even manipulated) multiparty elections may constitute a subversive force; elections could provide coordination signals for the opposition and windows of opportunity for organizing collective action. Elections could also provide discontent parts of the winning coalition with opportunities to split from the regime, potentially inducing regime change (e.g. Magaloni 2006). Repeated elections – although starting out manipulated – may spread democratic norms, leading to substantive democratization over time (Lindberg 2006).

Yet, manipulated elections may sometimes rather induce further de-liberalization: "The institutional ambivalence of flawed elections creates pressures for institutional change in both directions (...) If semidemocratic elections get out of hand and start producing "unacceptable" results, incumbents will strive to rescind democratic concessions made in the past" (Schedler 2002b, 109). Likewise, the mixing of autocratic with other democratic characteristics may reduce regime durability. Autocracies opening up the media sphere or allowing freedom of association may experience increased anti-regime collective action, since this reveals informative signals about the regime's (un-)popularity and alleviates co-ordination problems (see Kuran 1989; Lohmann 1994). This may, in turn, either lead to successful democratization or to regime crackdowns. Partial expansion of participation rights may also create viable coalitions for further such expansions, possibly extending to universal suffrage (Boix 2003; Acemoglu and Robinson 2006). Thus, regimes mixing authoritarian and democratic characteristics could be inherently unstable.

Despite the arguments and evidence discussed above, several contributions highlight the *stabilizing* role of mixing particular autocratic and democratic characteristics. The introduction of elections and legislatures, for instance, may stabilize non-democracies because they enable co-optation of critical opposition groups (e.g. Gandhi 2008). Partial democratization – e.g. through introducing multi-party elections or institutionalized constraints on the ruler – may also credibly signal the ruler will refrain from monopolizing and abusing power, thereby reducing incentives to overthrow the regime (Magaloni 2006; Myerson 2008; Svolik 2009, 2012; Boix and Svolik 2013). In general, introducing new institutions and organizations constitutes a core survival strategy of rulers (Haber 2006), and, as discussed below, non-democratic rulers might more often employ such costly strategies when perceiving grave threats. For example, multi-party legislatures more likely appear in non-democracies when regimes badly need co-operation with non-regime actors and when opposition forces are strong (Gandhi and Przeworski 2007; Gandhi 2008). Accounting for this, Gandhi and Przeworski (2007) report that multi-party legislatures stabilize non-democracies.

The potentially stabilizing effects of (authoritarian) multi-party elections have received particular attention (see Gandhi, and Lust-Okar 2009). As noted, some studies indicate that such elections destabilize non-democracies. However, other studies indicate the effect is highly context-dependent (Howard and Roessler 2006; Bunce and Wolchik 2010), whereas yet others highlight their regime-stabilizing impact. Multi-party elections could stabilize non-democracies through enabling co-optation (Magaloni 2006; Gandhi 2008), increasing domestic and international legitimacy (Schedler 2002a, 2006), or revealing important information about the opposition (Brownlee 2007; Malesky 2011). Nevertheless, Brownlee (2007) does not identify any net effect of elections on regime survival in non-democracies, and Brownlee (2009) neither finds any impact of being categorized as "electoral authoritarian" (Schedler 2006) nor "competitive authoritarian" (Levitsky and Way 2002).

The discussion indicates a complex relationship between regimes-institutional charac-

teristics and durability. Whereas some arguments suggest that particular combinations of democratic and autocratic characteristics have stabilizing properties, others indicate that semi-democracies are "not a stable equilibrium; the halfway house does not stand" (Huntington 1991, 137). Goldstone et al. (2010) report convincing evidence that being partially democratic is among the most important predictors of regime breakdown and other types of instability such as civil war (see also Muller and Weede 1990; Hegre et al. 2001). However, semi-democracies may generally be less durable because of several reasons, whereof a causal effect is only one. Below, we discuss and subsequently test three alternative explanations related to I) omitted variable bias due to contexts of social and political instability generating regimes with semi-democratic features; II) different *types* of non-democracies (e.g. monarchies or military regimes) having different scores on democracy measures; and, III) extant democracy indices not capturing certain regime changes.

3 Investigating three alternative explanations

Before discussing and testing the three explanations, we present how regime type is operationalized, descriptive statistics, and model specifications.

3.1 Operationalization of regime type and model specification

We employ the SIP regime measure developed by Gates et al. (2006). The SIP index uses Polity's (Marshall and Jaggers 2002) executive recruitment and executive constraints sub-indicators, but a participation measure from Vanhanen (2000) to ensure that SIP is not endogenous to political instability like the Polity index (Vreeland 2008). SIP ranges from 0–1 (most democratic). In their analysis, however, Gates et al. employ a tripartite categorization, classifying regimes as democratic, autocratic or inconsistent based on the three dimensions entering SIP. A "polity changes" results from "one or more of the following: (1) a movement from one category to another in the Executive dimension (i.e., between ascription/designation, dual ascriptive/elective, and elective), (2) a change of at least two

units in the Executive Constraints dimension, or (3) a 100% increase or 50% decrease in the Participation dimension (...) Doubling the number of citizens with voting rights qualifies as a minimum change" (Gates et al. 2006, 898).

[Figure 1 about here.]

Using the Gates et al. data, inconsistent regimes – or, as we label them, semi-democracies – lasted only 9 years on average over the period 1800–2000. In contrast, the average autocracy and democracy endured 21 and 23 years, respectively.[2] Figure 1 shows that whereas the average semi-democracy endured more than 15 years around 1900, the corresponding number was considerably below 10 from 1950 onwards (see Appendix Section A.1). This could reflect that semi-democracies in 1900 were of a different kind – encompassing European regimes with competitive elections but limited participation – than in, say, 1995 – encompassing regimes with universal franchise but limited competition. Thus, accounting for more specific regime-type characteristics, as done below, might be important. The relative durability of democracies versus autocracies has also changed, with democracies overtaking autocracies as the more durable from about. Durability is high for both from the 1870s to WWI. WWI brought to an end different long-lasting autocracies and introduced several relatively democratic regimes, whereof many quickly descended into autocracies. The average durability of autocracies dropped further with decolonization and creation of new states, whereas democratic durability rose from 1950 until the late 1970s. These observations indicate that considering descriptive statistics – for any given year – is insufficient for drawing conclusions about different regimes' duration. We run survival models to account for different problems related to estimating the impact of regime characteristics on durability.

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[2]This pattern is robust; when using Polity and the regime-change operationalization entailed in Polity's "regime duration" coding, regimes scoring ($-6 \leq Polity \leq 6$) last 7 years on average, autocracies 15, and democracies 19.

Although our findings below generally hold for different regime measures, duration-model specifications, and controls (Appendix Tables A.2, A.3), we present models building on the set-up in Gates et al. using a duration model with a log-logistic specification of the hazard. We adjust on their core model (Model 2, p. 901), which controls for linear and squared GDP p.c., GDP p.c. growth, regime-score in neighboring countries, a first-polity-in-country dummy, and time-period dummies.

The review above indicated that mixing different *particular* democratic characteristics (e.g. multi-party elections *or* widespread participation rights) with non-democratic characteristics might have distinct effects on regime survival. Thus, Gates et al. (2006) separate semi-democracies according to placement on the three distinct dimensions of authority. For instance, they show that regimes combining open and competitive executive recruitment with strong constraints but limited participation are particularly short-lived. Where executives are not recruited through elections, having broad-based participation and unconstrained executives make for especially short regime spells. In our analysis below we take this innovation one step further and simultaneously distinguish non-democracies by additional authority characteristics – notably Geddes' categorization of how the power of the leader is constituted.

Since the aggregated analysis – i.e. combining all semi-democracies in one category – may mask relevant dynamics, and since some of our alternative explanations actually pertain more clearly to certain types of semi-democracies, we also adjust Gates et al.'s "disaggregated models" (6 and 7, p. 904). All results are reported in time ratios, interpretable as relative change in duration for a one unit change on the independent variable. Hence, our Democracy estimate in Model A1, Table 1 (3.6) implies that democracies expectedly live 3.6 times the duration of the reference category, inconsistent regimes.

3.2 The endogeneity of semi-democracy: past instability as omitted variable and elite-led transitions

Our first alternative explanation relates to semi-democratic institutional features being consequences of political instability, rather than causes. The codification of certain civil liberties or introduction of multi-party legislatures in otherwise authoritarian regimes may actually be pursued exactly because they are expected to stabilize regimes in already precarious situations, for instance through enabling the co-optation of elite groups (Gandhi 2008). Institutional changes may also result from calculated efforts to avoid popular revolutions when perceived imminent (Acemoglu and Robinson 2000, 2006). Thus, conditions generating political and social turmoil may induce autocrats to adopt formal-democratic institutions to, if only temporarily, "appease" different regime opponents (see also Przeworski 1991). An environment of social turmoil and political instability may therefore move autocracies towards semi-democracies and simultaneously reduce survival prospects for *any* regime controlling power. Hence, the shorter life expectancy of semi-democracies could stem from such regimes being the *result* of conditions generating latent regime instability. Two brief case histories illustrate the argument:

In the early 1990s, several long-established autocracies, from Eastern Europe to Sub-Saharan Africa, saw their authority challenged. The combination of pent-up grievances and exogenous shocks contributed to government changes in numerous countries (e.g. Diamond 2008). In others, long-ruling autocrats attempted to defuse threats through liberalizing their regimes and sharing power. Hence, the upheavals resulted in several regimes with mixed characteristics (Carothers 2002), but some soon changed features again. Mobutu Sese Seko, for example, had been in power in Zaire since 1965, but now faced popular unrest, army mutinies, and shrinking resources for patronage (Reno 1997). In response, Mobutu ended the decades-long ban on political parties other than his Popular Movement of the Revolution, promised free and fair elections, and entered into a coalition government. Yet,

a couple of years later – after conditions had changed and having shored up army support – Mobutu reversed the liberalization measures: "By March 1993, Mobutu had essentially restored the *ancien régime* by naming a rival government, reviving the old constitution, and reconvening the previous parliament. By mid-1994, 'Mobutu's opponents in Kinshasa [were] too afraid of the military to march in protest down the main boulevard"' (Bratton and van de Walle 1997, 214).

Almost 150 years earlier, in 1848, established European monarchs also experienced popular pressure for liberalization following France's "February Revolution" (e.g Rapport 2008). However, different monarchs and their conservative supporters employed similar tactics to Mobutu; liberalize when faced with overwhelming opposition and popular unrest, then retract the concessions when control is regained. As a result, the "semi-democratic" arrangements resulting from Europe's springtime uprisings were often reverted by the year's end, and old authoritarian arrangements reinstated. This may have had less to do with characteristics of the new constitutions and institutions than the withering of the exogenous shock that spurred the revolutionary uprisings, and the lag-time for ruling elites to shore up their winning coalitions and respond. In Prussia, Friedrich Wilhelm IV faced massive protests and riots in Berlin in March 1848, and caved under pressure to allow the popular election of the first all-Prussian legislative assembly. Yet, within eight months the King regained control with army support, dissolving the national assembly. A similar pattern played out in, for instance, Habsburg-dominated Central Europe and Northern Italy (see Palmer, Colton and Kramer 2002, 485).

There may be something inherently unstable with the institutional arrangements of 1990s-Zaire or 1848-Prussia, but the short-lived nature of these arrangements could also be functions of the underlying social and political unrest. More generally, institutional characteristics may be endogenous to past instability and political elites' expectations about future instability. To investigate this, we first establish a baseline by replicating Gates et al. (2006)

in Models A1 (identical sample as their Model 2, p. 901) and A2 (1919–2000 time series; 1900–1919 dummy dropped) in Table 1. A2 is estimated to enable direct comparisons with our adjusted models for identical samples, but A1 and A2 produce very similar results; they identifying the expected time ratios (> 1) for both democracy and autocracy, indicating that semi-democracies are less durable.[3]

[Table 1 about here.]

Model A3 extends A2 by adding proxies for past instability and liberalization. As indicated above, autocracies forced to liberalize by popular pressures could move into the semi-democracy category, and the resulting regime may be unstable simply because of the context-specific factors that brought it about in the first place. To capture this, we include an interaction term (*Pressure to Democratize*) multiplying *Past instability* – a dummy measuring whether, in the past five years (up to $t-1$), a country experienced riots, anti-government demonstrations or strikes (as recorded by Banks 2011) – with *SIP change* – capturing regime liberalization by registering increases in SIP-score over the same five-year period.[4]

Past instability, *SIP change* and *Pressure to Democratize* are highly collinear – individually, only *Past instability* is clearly different from 1 (0.67; t=-3.27) in A3 – but they are clearly jointly different from 1. Interestingly, the point-estimate for *Pressure to Democratize* (0.61; t=-1.35) suggests that liberalization leads to relatively *lower* life expectancy of the resulting regime when following a popular uprising. Although associated with uncertainty the estimated effect is substantial, indicating that liberalized regimes whose emergence is associated with popular protests endure almost 40 percent shorter than other liberalized regimes. This could reflect that the former emerge in contexts generally hostile to regime

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[3]We always compare for identical samples when discussing results below.

[4]We also tested measures capturing SIP-changes in both directions; this does not alter results much.

survival, with sharp political conflicts within a mobilized population (Huntington 1968), or that regimes emerging from "elite-pacted" transitions without popular involvement are more resilient to breakdown (see Higley and Burton 1989). Nonetheless, including these additional variables do not change estimated survival rates for autocracies and democracies; past instability and liberalization do not explain why semi-democracies are less durable.

However, models treating distinct semi-democracies as one regime type may mask interesting nuances in the relationship with durability. Potentially, this is why we fail to find that our first alternative explanation drives the relationship. Indeed, the "liberalization-in-crisis–de-liberalization-thereafter" dynamic suggested in Zaire and Prussia could, possibly, only exist in systems where constraints on the executive remain weak. Only there are rulers capable of taking back the "concessions" given, once the dust settles, without being checked by alternative institutions and actors. To check this, we re-ran Gates et al.'s Models 6 (open and competitive executive recruitment) and 7 (closed recruitment), substituting the regime dummies with the above-described Polity and Vanhanen measures of the different dimensions, and interactions between them. We then ran these models again, but controlling for *Pressure to Democratize*, *SIP change*, and *Past instability* (see Appendix Tables A.5, A.6), and Table A.11 in our Online Appendix reports estimated median survival time for differently composed regimes before and after accounting for the alternative explanation. Except for the clearly democratic regimes (open recruitment, high participation, weak constraints), which increase in estimated durability, there are very small changes (mostly between 0.1 and 1.0 year) across the board. This goes also for (the highly unstable) closed regimes with weak constraints and high participation where we anticipated our alternative explanation to have the most bite: For regimes with the weakest possible constraints, and where 50 percent partakes in elections, the estimated median survival is 2.6 years for the baseline and 2.7 when adding the instability variables. Thus, past popular mobilization and instability do not explain the regime type–regime durability relationship, independent of whether we

group all semi-democracies together or disaggregate them.

Popular mobilization is not the main threat to regime survival; most regimes break down because of coups conducted by political or military elites (e.g. Svolik 2012). Conceivably, certain regimes are more adept at guarding against coups, and controlling for whether regimes exist in coup-prone environments may be important to mitigate omitted variable bias. Again treating semi-democracies as one regime type, Model A4 in Table 1 includes a variable measuring number of successful or failed coup d'etats over the last 10 years using data from Powell and Thyne (2011). Unsurprisingly, the variable negatively affects regime longevity, but including it only has minor impacts on the autocracy and democracy time ratios. This holds also when controlling for whether at least one attempted coup occurred the preceding year. Hence, semi-democracies are not less durable because they exist in coup-prone environments. It may be important to account for differences in composition between semi-democracies – one could speculate that mainly "oligarchic" semi-democracies with low participation are over-represented in coup-prone environments. Still, controlling for coups has little impact. To exemplify, the median survival time of closed regimes with only 5 percent participating in elections, but fairly strong constraints (4-5 score), only changes from 3.0 years to 3.3 when adding the coup variable.[5]

Svolik (2012) argues that the time an autocratic ruling coalition – the set of individuals supporting the dictator and securing his position – has been in power proxies well for how consolidated the regime is. When studying regime duration, therefore, one should account for the time a given coalition has existed. Model A5 includes ruling coalition longevity (years,

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[5]Using the combined semi-democracy categorization or disaggregated measures makes little difference also below, with some exceptions for "empirically empty" categories (e.g. closed regimes, very high participation, very strong constraints). We therefore mainly continue discussing aggregated analysis, but all corresponding disaggregated models are in the Appendix.

up to $t-1$, the current coalition has existed) adopted from Svolik (2012). Surprisingly, we do not find that longer-serving coalitions grow increasingly "immune" to regime change. Furthermore, including coalition longevity does not alter the estimated life expectancies of democracies and autocracies relative to semi-democracies by much. Model A5 indicates that autocracies endure about twice, and democracies almost three times, as long as semi-democracies.

Another variant of the alternative explanation relates to the overlap between being scored semi-democratic and being in a "transition period". Transitions from autocratic to democratic rule are often stepwise processes, more or less intentionally guided by political elites (O'Donnell and Schmitter 1986). The Spanish transition, for example, started with Franco's death in 1975, multi-party elections were held in 1977, and the new Constitution was approved in December 1978. The transition was gradual and time-consuming by purpose; dismantling the Francoite institutions and instantaneously replacing them with democratic was considered too risky by leading actors. The reformers acted "cautiously, and their instrument was legal reform, making possible a democratically elected body that could deal with the many problems on the horizon" (Linz and Stepan 1996, 94). According to *Polity2* – which ranges from -10 to 10 and interpolates values for transition-years – Spain is scored -7 from 1939–1974.[6] During the transition, however, the country is scored as if experiencing a string of mixed regimes with increasingly democratic character; -3 in 1975, 1 in 1976, and 5 in 1977, before reaching 9 in 1978.

Transition phases are seldom as enduring as the regimes preceding or following them. The correlation between semi-democracy and low durability may therefore partly stem from semi-democracy being a preliminary stepping stone in (intentionally) prolonged democratization processes. The replication models in Table 1 partially account for transition periods, as they

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[6]*Polity2* has been criticized for how it interpolates transition cases (Plümper and Neumayer 2010)

exclude most Polity-coded "Transitions" (-88). Yet, not all such cases are accounted for when using updated Polity data, and Model A6 includes a dummy for country-years experiencing "Transition".[7] Unsurprisingly, the transition-dummy correlates strongly and negatively with regime-survival prospects. Still, transition-phases are not why semi-democracies are relatively short-lived; the time ratios barely change, indicating that democracies survive 3.6 times the duration of semi-democracies, and autocracies 2.1 times.

Finally, we test whether *any* unobserved country-specific factors bias results through impacting on both regime type and durability. Ideally we would report a fixed effects model, but the Maximum Likelihood estimates did not converge. Therefore, we re-ran A2 with shared frailty on countries (A7).[8] Yet, A7 indicates that unobserved country-specific factors do not drive results; the democracy and autocracy time ratios remain stable. In sum, we do not find much support for our first alternative explanation; the relative brevity of semi-

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[7]Polity's Transition-category may not capture all transition processes: "the transition code should be applied sparingly and only in those cases where authority patterns are changing and those changes are not being seriously challenged. These are truly transitional polities where the implementation of generally accepted and substantially altered principles of governance is incomplete and fluid" (Marshall and Jaggers 2002, 18). The explicitly cautious scoring may lead Polity to miss several actual transitions. Therefore, we added a measure recording number of polity-score changes over the last five years to A6. This variable's time ratio is far below 1. Simulations, following King, Tomz and Wittenberg (2000), indicate that semi-democracies with five such polity changes – and which are "average" in terms of socioeconomic development – live between 12 and 21 years shorter than comparable semi-democracies without prior changes. Still, even when accounting for this, semi-democracies remain shorter-lived than both autocracies and democracies.

[8]The shared frailty is estimated as a multiplicative effect on the hazard function, with mean and variance drawn from a normal distribution.

democracies is not due to these regimes being born in more unstable political environments.

3.3   Degrees of democracy or regime categories?

Our second alternative explanation relates to the multiple, potentially relevant characteristics of political regimes. More specifically, the short durability of semi-democracies relative to autocracies might stem from semi-democracies, for some reason, being empirically associated with *other* institutional structures that reduce durability. A large literature conceptualizes *different types* of non-democracies according to principles and characteristics other than those related to distribution of authority between elites and populations (i.e. the democracy–dictatorship distinction). Geddes (1999, 2003) argues that to understand why some non-democracies are less durable (and have different democratization prospects) than others, one must differentiate according to *who* controls access to political office and *who* determines policy. Geddes, Wright and Frantz (2014) thus separate between single-party-, personalist- and military regimes, and monarchies. Hadenius and Teorell (2007) offer a slightly different categorization, drawing on three core distinctions according to existence of elections (and related party structure), hereditary succession and military control over government.[9] Hadenius and Teorell cut the personalist-regime category – arguing personalism is a continuous characteristic that to varying degrees are associated with all regimes – but further distinguish between limited multiparty (Mexico pre-2000), one-party (USSR) and no-party regimes (Uganda 1990s).

[Table 2 about here.]

These categorizations of non-democracies are potentially relevant for the relationship between semi-democracy and regime durability since i) previous studies indicate the different regime categories vary considerably in terms of durability, and ii) the categories differ in

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[9]Extra criteria separate e.g. theocratic and transitional regimes; the scheme counts 19 types.

measured degree of democracy (see Table 2). Regarding i), military regimes – due to officers' preferences for giving up power and returning to the barracks when facing splits within the military (Geddes 1999, 2003) – and multi-party autocracies – due, e.g., to party organizations allowing regime opponents to solve collective action problems (Knutsen and Fjelde 2013) – are expectedly short-lived. In contrast, one-party regimes – partly because of increased incentives for elites to make personal long-term investments in the regime (Magaloni 2006) – and monarchies – partly because of dynastic succession easing regime-threatening succession crises (Olson 1993) – are expectedly very durable. These expectations are supported by data presented in Hadenius and Teorell (2007), whereas Geddes (1999) reports that single-party regimes live longer than military in particular.[10] Regarding ii), the average Geddes et al. coded military regime, for instance, scores -3.6 on Polity whereas the average monarchy scores -7.9. Table 2 further shows that the Hadenius and Teorell one-party regimes almost exclusively (98 percent) are autocracies (Gates et al. categorization), whereas 13 percent of military-regime observations and 59 percent of limited-multiparty-regime observations are semi-democracies. Hence, the observed relationship between semi-democracy and durability may be due to unstable multi-party autocracies or military regimes being coded as semi-democratic, and stable one-party regimes as autocratic.

[Table 3 about here.]

Again, we run the replication model (B1), and compare to models including the above-described regime categories using the same sample.[11] More specifically, B2 and B3 in Table

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[10]Many other studies argue for or find differences in duration between non-democratic regime types (e.g. Levitsky and Way 2010; Svolik 2012; Teorell 2010; Menaldo 2012).

[11]The regime categories by Geddes, Wright and Frantz (2014) imply a different regime-change definition than Gates et al.'s, counting transitions from one regime category to another. However, among the 357 regime changes reported by the former, 96 percent occur within +/- 1 year of a regime change as operationalized by the latter.

3 add, respectively, the Geddes et al. and Hadenius and Teorell dummies.[12] Adding the Geddes regime dummies hardly affects the original results, although the democracy time ratio increases slightly in size. The proposed alternative explanation, then, does not find support; semi-democracies are not less durable than autocracies because they tend to lack dynastic succession or dominant regime parties. Furthermore, the Geddes regime categories are indistinguishable from each other in terms of regime longevity once degree of democracy is accounted for. The military-regime time ratio is close to 1, as are the monarchy and single-party ratios. Surprisingly, adding the Geddes dummies does not improve explanatory power by much; log likelihood changes from -506.5 to -506.0. AIC, which accounts for increased model complexity, actually indicates B2 performs worse than B1 in explaining duration (see also Appendix Section A.2).

B2 is estimated on time-series starting in 1972 to facilitate comparison with B3 using Hadenius and Teorell dummies. When running B2 on time-series from 1946 (Model B4), the autocracy and democracy dummies are further strengthened, whereas all Geddes dummies retain p-values above 0.05. The Single-party dummy has $t = 2.9$ when using continuous SIP-variables (Appendix Table A.4), but the sensitivity to specification choice and modest magnitude of estimated effects contrast with previous conclusions on how regime parties strongly bolster survival (e.g. Geddes 1999; Magaloni 2006; Greene 2010).

[Table 4 about here.]

Above, we followed Gates et al. (2006) in further disaggregating regimes according to how their political institutions affect distribution of authority, i.e. *how* executives are selected and constrained, and extent of popular participation. These authors do not separate regimes

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[12]For these, democracy is the reference category. Hence, there are two reference categories in Table 3, making interpretation involved. We therefore also estimated the models using continuous SIP (linear and squared terms; Appendix Table A.4).

after other authority characteristics, like Geddes' distinctions according to *who* controls appointments and policy selection. Our analysis indicates this is not as important for durability as degree of democracy, but the results could be blurred by combining all semi-democracies. Different types of semi-democracies differ in expected duration, and closer investigation (see Appendix Table A.7), for instance, shows that while Personalist regimes have weaker executive constraints than Single-party, they have broader participation. Hence, we re-ran Model 7 from Gates et al., both including and excluding the Geddes dummies (Appendix Table A.9). Table 4 shows the resulting estimated median survival times. The differences are fairly small for *all* the different categories of semi-democracies; the largest point-estimate changes are actually for the regimes that are very autocratic along all three dimensions, increasing durability with (only) about 1 year when adding the Geddes dummies. This reinforces the above conclusion; (the various kinds of) semi-democracies and autocracies do not mainly have different durabilities because they differ in terms of *who* controls power.[13]

Returning to models combining all semi-democracies in one category, B3 adds the Hadenius and Teorell dummies. It reports time ratios > 1 for one-party- and < 1 for multiparty regimes, suggesting one relevant distinction is between regimes allowing for competing par-

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[13]Precisely predicting the survival of regimes when disaggregating both according to the three authority-distribution dimensions and the Geddes categorization is, however, not always viable, due to few observations for most combinations. We ran simulations to obtain 95% confidence intervals on the survival times for all Geddes regime categories for different participation–constraints combinations for closed regimes. Many intervals could not be estimated, and the remaining show overlap between the Geddes types. For the pure autocracies (lowest scores participation *and* constraints) the 95% intervals are Military:[3.1, 7.2]; Monarchy:[1.5, 12]; Personalist:[7.0, 11.8]; Single-party: [3.5, 23.9].

ties, and those where ruling parties reign supreme.[14] Still, the respective t-values are not sizeable. The Hadenius-and-Teorell-Monarchy time ratio is quite substantial in size, however, and increases further when substituting the Gates et al. dummies with continuous SIP-variables in Appendix Table A.4 (3.17; t=2.58). Although this contrasts with the result from B2, there are thus some indications that monarchies are relatively stable non-democracies.[15] Far more notable, however, is the robustness of the result that semi-democracies are shorter-lived than both autocracies and democracies, which is replicated also in B3.

The Geddes categorization assumes the fundamental regime aspect is who holds executive power. In contrast, the competitive authoritarianism literature focuses how exposed regimes are to competition (Levitsky and Way 2002, 2010): In *electoral authoritarian* regimes some multiparty (or fractional) competition takes place, but it is manipulated. *Competitive authoritarian* regimes, "may routinely manipulate formal democratic rules, [but] they are unable to eliminate them or reduce them to a mere facade" (Levitsky and Way 2002, 53); all competitive regimes are electoral, but not the other way around. *Hegemonic* regimes, in contrast, see no such competition. The combination of autocratic regime characteristics with elections involving *some* competitive element may, of course, be considered a typical semi-democratic trait, and problems of conceptual overlap are arguably larger here than for the Geddes or Hadenius and Teorell categorizations. Still, several authors explicitly argue that "competitive authoritarian" is a distinct category not neatly placing itself on a democracy–dictatorship dimension (e.g. Brownlee 2009; Levitsky and Way 2010). One may agree or disagree with this conceptual distinction, but empirically there is only modest over-

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[14]Moreover, the change in AIC from B1 to B3 indicates that adding the Hadenius and Teorell dummies – in contrast with the Geddes dummies – improves model performance.

[15]There are four sets of regime-years that Geddes et al., in contrast with Hadenius and Teorell, do not code as monarchies (Bahrain, Qatar, Bhutan, Brunei). However, removing these and re-estimating B3 does not change the original result.

lap between observations scored as semi-democracies and as competitive authoritarian by Brownlee (2009); the latter's scores range from 0 (Burkina Faso-1980) to .96 (Spain-1979) on SIP, and from -9 (Uzbekistan-2009) to 10 (Mauritius-1993) on Polity.

Thus, Model B5 includes hegemonic- and competitive authoritarian dummies from Brownlee (2009). In line with Brownlee, we do not find that hegemonic or competitive regime characteristics impact on durability. Furthermore semi-democracies remain clearly less durable than both democracies and autocracies also in B5. When compared to a replication model for the same sample, the time ratio for autocracies (and democracies) barely moves. The generally higher competition in semi-democracies than in autocracies does seemingly *not* contribute to the formers' relative instability.

3.4 Capturing regime change in autocracies and democracies

The above analysis suggests that semi-democratic regimes are inherently less durable than democracies and autocracies. Yet, there exists one additional alternative explanation: As Dahl (1971) points out, democracy is an ideal concept that empirical regimes only approach. Likewise, no observed regime has been an ideal autocracy with one person controlling every political decision-making process. Still, extant democracy indices such as Polity, Freedom House, and SIP are restricted; several regimes have (close to) minimum and maximum scores (Coppedge et al. 2011), implying they have little room to either "deteriorate" or "improve". Out of 7018 regime-year observations in Model C1, Table 5, 621 are autocracies that *logically* could not further de-liberalize according to the regime-change definition by Gates et al. (2006, 898), whereas 456 are democracies that could not further liberalize (see Appendix Table A.12). The latter includes regimes where most country-experts arguably would agree there *de facto* were substantial room for further improvements in democratic quality (e.g. Argentina-2000, Bulgaria-1990, Indonesia-1999, Italy-1948), and the former

includes Chile-1989, Ghana-1991, and Pakistan-2000.[16]

Consequentially, standard model-specifications could yield biased estimates when counting regime changes in both directions; semi-democracy is the only category where all regimes may *register* both liberalization and de-liberalization episodes as regime changes. The observed correlation between semi-democracy and short durability might therefore be an artifact of the floors and ceilings imposed by extant democracy indices. Below, we first try to circumvent this by separately estimating effects on liberalizing- and de-liberalizing regime changes. One additional benefit of this is that mechanisms driving liberalization processes may be quite different from those driving de-liberalization. For instance, Przeworski and Limongi (1997) and Houle (2009) respectively find that higher income levels and lower income inequality guard against changes from democracy to autocracy, but do not affect democratization. Analogous nuances may exist for the impact of regime-institutional characteristics (see also Teorell 2010).

[Table 5 about here.]

C1 is the aggregated replication model considering time to regime breakdown regardless of whether the subsequent regime is more or less liberal. C2 and C3 keep the original set-up except for employing dependent variables measuring only breakdowns leading to, respectively, more and less liberal regimes. In C2, investigating only liberalizing changes – thereby alleviating the floor-bias – the autocracy time ratio is indistinguishable from 1;

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[16]This is, if anything, exacerbated when using the Polity-based regime change definition, requiring ≥ 3 change on Polity – most regimes score close to or at the index' boundaries. Norway, for instance, achieves a perfect 10-score in 1898, when women could not vote, election manipulation was commonplace, and the elected Parliament did not control foreign policy (Aardal 2002). Likewise, the United States scores ≥ 8 from 1809 onwards, leaving no room for liberalizing regime changes.

autocratic and semi-democratic regimes are *equally likely* to experience liberalizing regime changes.[17] Moreover, the democracy time ratio changes quite drastically from C1 (3.61) to C3 (2.47), but remains sizeable and has $t = 4.59$; democracies are more resilient to de-liberalizing changes than semi-democracies. C2 and C3 clearly outperform C1 in terms of log likelihood and AIC; including information on the direction of regime change greatly improves model fit.

Still, regarding our main question – whether semi-democracies are inherently less durable – C2 and C3 do not give definitive answers. The differences in estimates from C1 may be due to floor-ceiling biases *and* to regime-institutional structures actually having different substantive effects on liberalizing and de-liberalizing regime changes. It could, for instance, be that autocracies are no more robust to liberalizing changes than semi-democracies, but *actually are* very robust to de-liberalizing changes. To further evaluate whether the insignificant autocracy-result in C2 stems from removing the floor-bias, we re-estimate C1 including a dummy for regimes that logically cannot experience further de-liberalizing regime changes (C4). We also include a dummy scoring impossibility of liberalizing changes. This should remove the floor-ceiling biases, while allowing the estimation of (overall) durability of democracies, autocracies and semi-democracies. Indeed, C4 retains the main result from C1; semi-democracies are less durable than autocracies (1.87; t=5.49) and democracies (3.30; t=7.80). Thus, the reported lower durability of semi-democracies is not an artifact of floor-ceiling biases.[18]

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[17]Due to ceiling and floor biases, respectively, C2's democracy-estimate and C3's autocracy-estimate are not that interesting.

[18]We also tested different requirements for registering regime change, but our conclusions are generally retained. Further, Appendix Table A.10 presents analysis disaggregating regimes after executive recruitment, participation and executive constraints. The effect of the regime dimensions clearly depend on whether we are investigating liberalizing or de-

4   Conclusion

Although some semi-democracies endure longer than others, they are generally far less durable than both democracies and autocracies. We document that this result holds even when accounting for three plausible alternative explanations of the observed correlation, such as semi-democratic regime institutions emerging under conditions of political instability and social turmoil that would reduce the survival prospects of any regime. Indeed, "Semi-democracies are particularly unstable political regimes" should be regarded as one of the few stylized facts of comparative politics, and this correlation is seemingly due to the institutional composition of such regimes causing reduced durability. However, our analysis provides one important nuance; semi-democracies are no more likely to experience *liberalizing regime changes* than autocracies.

Political scientists have become increasingly skeptical of employing (only) the democracy–dictatorship dimension when trying to understand the dynamics and consequences of political regimes (e.g. Geddes 1999; Carothers 2002; Levitsky and Way 2002; Schedler 2006; Hadenius and Teorell 2007; Brownlee 2009). This goes in particular for the question of why some political regimes break down fairly quickly, whereas others endure for decades. We fully agree there are often good reasons for analyzing political regimes according to other characteristics than degree of democracy, and above we highlight how different combinations of executive recruitment, executive constraints and political participation induce differences in durability for regimes considered about equally democratic. Nevertheless, our results suggest the characteristics embedded in the refined regime categories from Geddes (1999) or Hadenius and Teorell (2007) do not matter that much for regime durability once accounting for differences in degree of democracy. After all, we therefore propose that differences in

liberalizing regime changes. Yet, models investigating all changes and including floor/ceiling dummies show this comes from *actual* differences in effects on liberalizing and de-liberalizing changes and not from measurement biases.

degree of democracy – rather than existence of dynastic succession, military government, or a dominant regime party – is the key regime characteristic for understanding why some regimes collapse while others endure.

Finally, and importantly, our results imply that liberalizing regime changes may occur with a non-negligible probability in any non-democratic regime – be it in harshly authoritarian or semi-democratic regimes, or in party-based or military dictatorships – as also recent experiences in regimes as dissimilar as Myanmar and Tunisia indicate. This should be fairly good news to those fighting for political liberalization under non-democratic, but still quite different, political-institutional arrangements in Venezuela, Zimbabwe, Russia, North Korea, Singapore and China.

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Figure 1: Regime durability by regime type
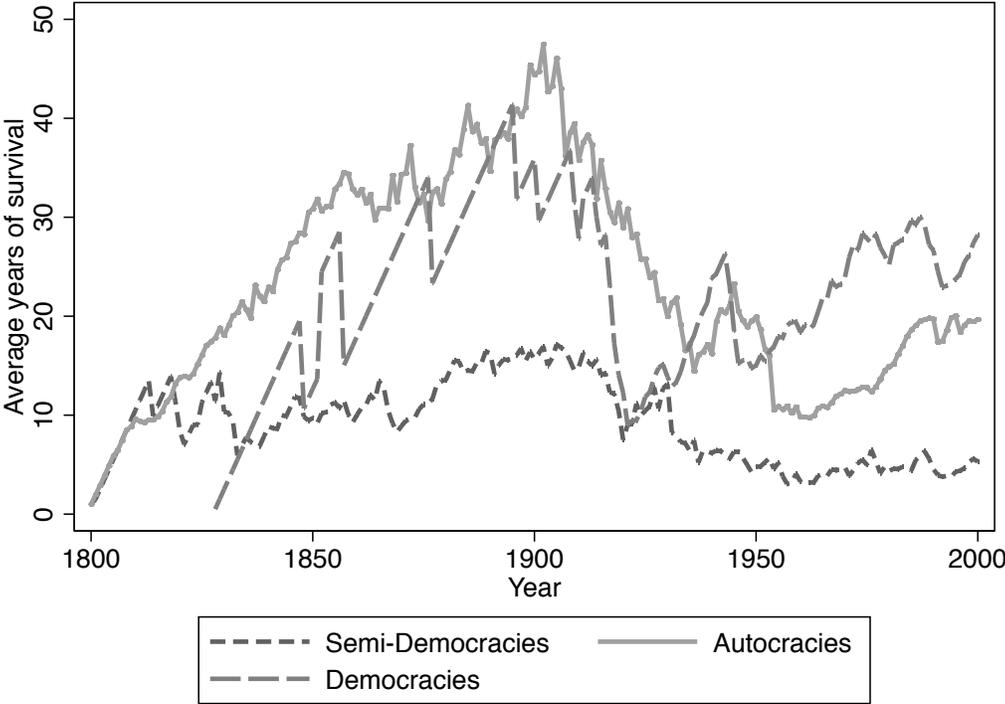
Average life span (y-axis) by regime types, 1800–2000. Data source: Gates et al. (2006)

Table 1: Instability and Omitted Variable Bias – Regime Survival 1919–2000

	(A1) Gates et al. 1900–2000	(A2) Gates et al. 1919–2000	(A3) Instability	(A4) Coups	(A5) Ruling Coalition	(A6) Transitions	(A7) Shared frailty
Autocracy	1.850***	1.880***	1.897***	1.986***	1.458***	2.054***	1.875***
	(6.05)	(5.87)	(6.06)	(6.18)	(5.05)	(6.40)	(5.62)
Democracy	3.613***	3.781***	3.875***	4.101***	2.251***	3.621***	3.769***
	(8.74)	(8.72)	(9.11)	(9.04)	(6.59)	(8.27)	(9.34)
Past instability			0.672**				
			(-3.27)				
Pressure to Democratize			0.606				
			(-1.35)				
SIP change			1.561				
			(1.83)				
Coups last 10 years				0.894***			
				(-3.73)			
Ruling Coal. Duration					1.453***		
					(5.39)		
Polity transitions (-88)						0.0452***	
						(-6.56)	
GDP p.c.	1.273***	1.313***	1.331***	1.275***	1.165***	1.340***	1.313***
	(5.46)	(5.72)	(6.05)	(5.38)	(4.67)	(5.79)	(5.66)
GDP p.c. squared	1.160***	1.197***	1.192***	1.166***	1.086***	1.187***	1.197***
	(5.19)	(5.73)	(5.63)	(5.31)	(4.06)	(5.33)	(5.68)
GDP p.c. growth	1.018*	1.014	1.013	1.019*	1.015**	1.017	1.014*
	(2.25)	(1.68)	(1.55)	(2.11)	(2.62)	(1.94)	(2.04)
Neighboring regimes	0.354***	0.340***	0.361***	0.301***	0.484***	0.296***	0.340***
	(-4.13)	(-4.05)	(-3.91)	(-4.58)	(-4.44)	(-4.28)	(-4.01)
First polity	1.624*	1.609*	1.728**	1.451	1.394**	1.599*	1.601*
	(2.47)	(2.34)	(2.79)	(1.94)	(2.96)	(2.31)	(2.36)
AIC	1812.6	1630.8	1620.3	1546.4	1549.9	1538.2	1632.7
ll	-895.3	-804.4	-796.1	-762.2	-763.0	-757.1	-804.4
Gamma	0.645	0.645	0.633	0.646	0.448	0.628	0.644
N	7018	6341	6341	5881	6481	6341	6341
Polities	716	666	666	618	671	666	666
Failures	555	496	496	464	528	496	496

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Time ratios and t statistics (in parentheses) are reported. Time dummies are omitted from table.

Table 2: Descriptive Statistics for Regime Measures

	Percent Semi-dem.	Percent Autocracies	Percent Democracies	Average SIP score	Average Polity score	Average duration
Geddes et al. Regime Categories (1946–2010)						
Single-Party	19	75	6	.21	-4.37	10
Personalist	25	74	1	.14	-4.52	7
Military	24	71	5	.19	-3.57	5
Monarchy	33	67	0	.16	-7.94	33
Hadenius and Teorell Regime Categories (1972–2010)						
Monarchy	28	72	0	.17	-8.47	35
Military	13	86	1	.10	-5.65	7
Multiparty	59	26	15	.45	-.20	6
One-Party	2	98	0	.07	-7.50	17
No-Party	15	83	2	.19	-7.71	8

Table 3: Regime Type Categories – Regime Survival 1946/72–2000

	(B1) Gates et al	(B2) Geddes regimes	(B3) H.T. regimes	(B4) Geddes full sample	(B5) Competitive author.
Autocracy	1.606***	1.593**	1.642**	1.890***	1.432*
	(3.42)	(3.16)	(3.16)	(5.43)	(2.30)
Democracy	4.096***	4.362***	3.771***	4.529***	4.072***
	(6.87)	(6.26)	(5.45)	(8.48)	(6.19)
G Monarchy		1.470		1.304	
		(0.73)		(0.72)	
G Single-party		1.118		1.301	
		(0.55)		(1.69)	
G Personalist		1.034		1.160	
		(0.15)		(0.85)	
G Military		1.085		0.941	
		(0.37)		(-0.34)	
HT Monarchy			2.134		
			(1.86)		
HT Military			0.592		
			(-1.87)		
HT One-party			1.618		
			(1.22)		
HT Multiparty			0.688		
			(-1.52)		
HT No-party/Other			0.548		
			(-1.28)		
Hegemonic					1.125
					(0.54)
Competitive					0.983
					(-0.09)
GDP p.c.	1.272***	1.255***	1.169**	1.313***	1.271***
	(4.41)	(3.79)	(2.58)	(5.57)	(4.11)
GDP p.c. squared	1.166***	1.158***	1.145***	1.165***	1.176***
	(4.54)	(4.27)	(3.95)	(5.17)	(4.43)
GDP p.c. growth	1.033**	1.034**	1.034**	1.019*	1.032**
	(3.16)	(3.05)	(3.20)	(2.04)	(2.80)
Neighboring regimes	0.243***	0.243***	0.246***	0.298***	0.251***
	(-4.08)	(-4.10)	(-4.17)	(-4.40)	(-3.81)
First polity	2.180***	2.134***	1.797**	1.556*	2.014**
	(3.94)	(3.71)	(3.08)	(2.31)	(3.14)
AIC	1031.0	1037.9	1016.9	1601.6	968.4
ll	-506.5	-506.0	-494.4	-787.8	-473.2
Gamma	0.648	0.647	0.627	0.657	0.668
N	4070	4070	4070	6065	3708
Polities	470	470	470	629	445
Failures	317	317	317	475	292

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Time ratios and t statistics (in parentheses) are reported.

Table 4: Estimated median survival times for different polities in models with/without Geddes dummies

Designated or ascribed executive

Share of population participating elections	Executive constraints			
	1 (weak)	2-3	4-5	6-7
$\leq 1\%$	10.9/11.9	7.5/8.5	3.3/3.4	1.8/1.7
5%	7.4/8.8	5.6/6.7	3.4/3.5	2.7/2.8
10%	3.8/3.4	4.0/4.0	4.1/4.3	5.2/4.9
50%	2.7/2.5	4.6/4.6	4.5/3.8	7.8/7.0

All covariates at means. Estimates are for: Baseline model/Model controlling for Geddes dummies; see Appendix Table A.9.

Table 5: Floor and Ceiling Biases – Regime Survival 1900–2000

	(C1) Gates et al.	(C2) Liberalization	(C3) De-liberalization	(C4) Ceiling and floor
Autocracy	1.850***	1.114	6.167***	1.866***
	(6.05)	(0.85)	(8.89)	(5.49)
Democracy	3.613***	6.004***	2.467***	3.298***
	(8.74)	(8.41)	(4.59)	(7.80)
Ceiling dummy				5.245*
				(2.19)
Floor dummy				0.971
				(-0.19)
GDP p.c.	1.273***	1.043	1.735***	1.227***
	(5.46)	(0.80)	(5.56)	(4.19)
GDP p.c. squared	1.160***	1.089**	1.253***	1.140***
	(5.19)	(2.66)	(4.25)	(4.12)
GDP p.c. growth	1.018*	1.024**	1.014	1.019*
	(2.25)	(2.75)	(1.01)	(2.27)
Neighboring regimes	0.354***	0.455**	0.272***	0.376***
	(-4.13)	(-2.59)	(-3.48)	(-3.83)
First polity	1.624*	2.563***	0.944	1.621*
	(2.47)	(4.62)	(-0.20)	(2.38)
AIC	1812.6	1370.5	1033.3	1805.9
ll	-895.3	-674.3	-505.6	-889.9
Gamma	0.645	0.690	0.788	0.647
N	7018	7018	7018	7018
Polities	716	716	716	716
Failures	555	347	202	555

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Time ratios and t statistics (in parentheses) are reported.
Time dummies are omitted from table.