Elite Co-optation, Repression, and Coups in Autocracies

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ABSTRACT

This article provides an explanation for the significant variation in coups in autocracies. The existing theoretical literature focuses on the strategies that leaders' use to thwart mass mobilization and survive in power. However, most autocratic leaders lose power through a coup, indicating that the main threats to political survival in autocracies emerge from insiders and not from outsiders the incumbent coalition. This article focuses on leaders' strategies to mitigate elite threats and argues that autocrats' strategies of co-optation and repression within the ruling elite and the armed forces affect the risk of coups in opposite ways. Elected authoritarian legislatures are instruments that leaders employ to co-opt members of the incumbent coalition and are expected to decrease the likelihood of coups. In contrast, purges of insider actors constitute a repressive strategy that depletes bases of support and increases the risk of coups. We find empirical support for these hypotheses from a sample of all authoritarian regimes from 1950 to 2004.

Keywords: Coups, autocratic regimes, survival strategies, elite co-optation, elite repression.

† The authors are listed in alphabetical order; equal authorship implied. A previous version of this manuscript was presented at the 2013 annual meeting of the International Studies Association, San Francisco, CA, and the 2013 annual conference of the Midwest Political Science Association, Chicago, IL. We are grateful to Tobias Boehmelt, Kristian Skrede Gleditsch, Pat James, Bethany Lacina, Petros Sekeris, Bárbara Zárate, three anonymous reviewers, and the editor Michael Colaresi for very helpful comments and suggestions.

INTRODUCTION

This article examines how strategies of cooptation and repression affect coup risk in autocratic regimes. Recent research on authoritarianism has mainly focused on leaders' strategies to prevent threats of popular mobilization (e.g., Gandhi and Przeworski 2007/2006; Acemoglu and Robinson 2006; Bueno de Mesquita and Smith 2010), and empirical work has established that popular collective action undermines autocratic regimes and increases the likelihood of transitions to democracy (e.g., Rivera and Gleditsch 2013; Chenoweth and Stephan 2011; Teorell 2010; Ulfelder 2005). Yet largely unexplored remains the fact that the primary threat to autocratic rulers comes from actors within their regime coalition. Coups constitute the most common type of irregular leadership transition in autocratic regimes (Goemans, Gleditsch, and Chiozza 2009; Svolik 2012/2009). Indeed, 102 of 201 autocratic breakdowns between 1950 and 2004 were triggered by a coup.[1]

Given that most autocratic breakdowns are the result of coups, and recent scholarship has been overwhelmingly focused on the way survival strategies influence mobilization from outsiders and not from actors inside the incumbent coalition (for an exception, see Svolik 2012), in this article we focus on how strategies of co-optation and repression within the ruling elite affect the likelihood of a coup. Building on previous research, we argue that elected authoritarian legislatures allow leaders to co-opt members of the incumbent coalition and are expected to decrease the propensity of coups. In contrast, purges represent one tactic in the leaders' toolkit to repress existing challengers within their own supporting coalition, which often leads to greater instability and higher risk of coups. More broadly, whereas co-optation strategies are likely to decrease the probability of coups, we hypothesize that repressive strategies have the opposite effect, increasing the risk of coups.

[1] We calculated these figures using data from Geddes, Wright, and Frantz (2014), and Goemans, Gleditsch, and Chiozza (2009).

The analysis of all authoritarian regimes for the period 1950-2004 provides support for our claim that co-optation and repression strategies within the elite are systematically associated with the risk of coups. More specifically, elected authoritarian legislatures mitigate threats from insiders and reduce the probability of leader change as a consequence of a coup. We find the opposite for purges, which are positively related to the onset of coups. These results are robust to other known causes of coups and issues of omitted variable bias. Furthermore, we show that considering elected legislatures and purges helps to improve substantively our ability to forecast the onset of coups in autocracies. We conclude that carrots rather sticks within the incumbent coalition can enhance authoritarian survival.

The remainder of the article is organized as follows. Section 2 presents a review of previous research on authoritarian survival and coups. Section 3 outlines a theory of how rulers' strategies to mitigate intra-elite opposition influence conflict and the risk of coups. Section 4 details our data and method, and presents our empirical results. Section 5 concludes by discussing our findings and its broader implications.

LITERATURE REVIEW

The determinants of coups

Until very recently scholars examining the onset of coups relied merely on structural factors such as economic development, economic crisis, and social instability in order to explaining the occurrence of coup events (e.g., Putnam 1967; Needler 1968; Jackman 1978; Zald and Berger 1978; Luttwak 1979). Londregan and Poole (1990) found that economic factors such as poverty and economic growth have a significant effect on the risk of coups. Subsequent studies provide similar evidence. While low income countries are more likely to experience coups because poverty influences social instability, which often triggers splits within the elite (e.g., O'Kane 1993; Belkin and Schofer 2003; Collier and Hoeffler

2006), economic growth decreases the chances of coup events (e.g., Galetovic and Sanhueza 2000; Collier and Hoeffler 2007).

Empirical researchers have incorporated other explanations to the battery of structural determinants of coups. The notion of "coup trap" underlines the fact that "once a country has experience a coup, it has a much harder time avoiding further coups" (Londregan and Poole 1990: 175). Scholars have also noted that social instability and protest increase the risk of coups, mainly because elite actors perceive popular uprisings as a sign of government weakness and social disorder. This was the claim of military leaders in Latin America to legitimate the seizure of power aimed at restoring order and promote development. In line with this argument and the historical evidence, empirical studies show that contentious collective action affects the onset of coups (e.g., Londregan and Poole 1990; Belkin and Schofer 2003).

Scholars have also examined whether certain political systems facilitate or inhibit the emergence of coups. Belkin and Schofer (2003) highlight that military regimes are the most likely to experience coups because of their lack of legitimacy and elite divisions. In line with this, empirical analyses find a positive relationship between military regimes and the risk of coups (e.g., Thyne 2010). This finding is consistent with related research in comparative politics showing that military regimes survive less long than other autocratic regimes (e.g., Geddes 1999/2003). On the other hand, democracies are less likely to experience coups because they have greater legitimacy within society, compared to autocracies that tend to lack popular legitimacy (e.g., Lindberg and Clark 2008). Despite some studies show that democracy reduces the risk of coups (e.g., Powell, 2012), this finding is not consistent across empirical research and largely depends on measurement decisions and scope of analysis.

Agent-based explanations instead stress the role of agency and actors' decisions in explaining the onset of coups (e.g., Bohmelt and Pilster forthcoming; Powell 2012; Belkin 2005). According to

this approach, coup events arise directly from actors' expectations about the costs and benefits of violent takeovers and their beliefs about their probabilities to succeed. A coup is anticipated when its benefits exceed the costs – the payoffs weighted by the probability of success. Nonetheless, one must keep in mind that the costs related to a coup are not exogenous to governments' policies, and thus leaders are able to influence plotters' preferences. Agent-based explanations suggest that coups are not mere outcomes of a country's structural characteristics. For instance, Powell (2012) tests whether coup-proofing strategies inhibit elite's willingness to mobilize against the government. One reason for this is that state leaders are able to deploy incentives that raise the costs of a potential intervention by military and elite actors. The existing evidence supports this claim, indicating that the amount of expenditure per solder is negatively associated with coup attempts. The results likewise show that the size of the military has a negative and substantive effect on the onset of coups (Powell 2012).

Structural and agent-based explanations have made significant progress in understanding the determinants of coups. However, scholars typically collapse democratic and non-democratic regimes in their empirical analyses, neglecting that coup dynamics are likely to differ between democracies and non-democracies. Theoretically, this is puzzling given that different co-optation and repression strategies within the ruling elite can influence plotters' behavior in autocracies. Moreover, from an empirical point of view a focus on coup events under authoritarianism seems relevant as a large proportion of coups (roughly 80%) occurred in autocratic regimes between 1950 and 2004. Before introducing our argument, we summarize briefly the recent literature on survival strategies in autocracies.

Regime threats and survival strategies

Threats to regime survival encompass different forms of collective action that have the potential of destabilizing an autocratic regime and may lead to its breakdown. Regime threats emerge from actors within society and actors within the incumbent coalition (see Schedler 2013, Chap. 1). Whereas there is a large body of research on coups, a new wave of scholarship on authoritarianism focuses on the strategies that leaders use to thwart and/or suppress mass demonstrations arisen from below (e.g., Gandhi and Przeworski 2006; Acemoglu and Robinson 2006; Bueno de Mesquita and Smith 2010). These studies have stressed two main strategies that autocrats deploy to suppress threats emerging from non-elite actors, namely repression and co-optation.

Both violent and nonviolent repression have been considered as the main instruments that authoritarian leaders use to hold their power (e.g., Escriba-Folch 2013; Albertus and Menaldo 2012; Bueno de Mesquita and Smith 2010; Linz 2000). From this perspective, violent repression is seen as an instrument that autocrats use to prevent and/or dissuade collective action by the masses in two different ways. Violent repression helps autocrats to eliminate opposition actors through the use of political imprisonment, disappearances, and extra-judicial killings. Moreover, violent repression is expected to increase the costs of protest and hence reduce incentives for mass opposition to mobilize against the incumbent regime (Escriba-Folch 2013; Muller 1985).[2] Empirical studies provide mixed results with regards to these propositions, however. Bueno de Mesquita and Smith (2010) find that violent repression does not affect regime survival. Yet Escriba-Folch (2013) finds that violent repression decreases the risk of nonviolent and regular exits, that is, when leaders are replaced according to prevailing regular rules. In a related work, Albertus and Menaldo (2012) provide evidence that states' repressive capacity decreases the prospects of transitions from autocracy to democracy.

[2] Other arguments suggest that repression against opposition may lead to conflict escalation and trigger the use of violent methods by the opposition (Lichbach 1987; Moore 1998).

As it is well known, repression does not only embrace the use of force and violent methods against political opposition (i.e., disappearances, torture, extra-judicial killings). It also includes nonviolent methods such as political imprisonment, harassment, surveillance, among others (see, e.g., Escriba-Folch 2013). Scholars argue that nonviolent repression, most notably civil liberties restrictions, help autocrats to hold power by increasing barriers for collective action and decreasing opposition's capacity to mobilize against incumbent regimes. The existing empirical evidence supports this argument by showing that civil liberties restrictions increase the autocratic survival (Escriba-Folch 2013).

Besides repressive strategies, autocratic leaders employ co-optation instruments to prevent the emergence of threats from below. Because repression can be counterproductive and fuel protest (see, e.g., Francisco 1996; Lichbach and Gurr 1981), or repressive actors can exploit their position and mobilize against the leader in order to take power (see, e.g., Svolik 2012; Nepstad 2013), autocrats often make policy concessions and provide benefits amongst the population to co-opt potential challengers and broaden their support. Leaders increase provision of public goods to reduce popular grievances and prevent rebellion from actors within society (e.g., Bueno de Mesquita and Smith 2010; Gandhi and Przeworski 2006). Furthermore, leaders employ nominally democratic institutions such as legislatures to obtain the cooperation of outsiders and neutralize threats from the masses. To quote Gandhi and Przeworski (2007, 1280), "partisan legislatures incorporate opposition forces, investing them with a stake in the ruler's survival. By broadening the basis of support for the ruler, these institutions lengthen his tenure." In line with this argument, there is evidence that autocratic institutions facilitate co-optation and enhance political survival (see, e.g., Gandhi and Przeworski 2007; Magaloni 2008).

Although there has not been much theoretical effort to determine whether repression and co-optation are complements or substitutes, the existing literature tends to see these tactics as substitutive

strategies for authoritarian survival (see, e.g., Wintrobe 1998; Bueno de Mesquita and Smith 2010). Scholars share the idea that leaders who mostly depend on co-optation strategies to hold power are expected to deploy comparatively lower levels of violent repression. This seems to be the case of Singapore under the People's Action Party, where violent repression against civilians is much lower compared to other autocracies, and provision of public goods is generous and authoritarian institutions help process citizens' demands effectively (see Slater 2012). Other autocrats instead behave as "roving bandits" (Olson 1993), allocating few resources on the masses and governing through violence. Take for instance the case of the so-called Kleptocratic regime in the Democratic Republic of the Congo under Mobutu Sese Seko, who expropriated the wealth of the population and governed through repression (see Acemoglu, Verdier, and Robinson 2004).

This literature has been very influential in the recent study of authoritarianism. The emphasis on regime threats originating from non-elite actors is not trivial given the recent events of mass demonstrations against autocracies in the Arab world. Most notably, recent research demonstrates that popular collective action has a substantive effect on regime stability and transitions in autocracies (e.g., Rivera and Gleditsch 2013; Chenoweth and Stephan 2011; Teorell 2010). Still, as noted in the introduction, the main threat that most autocrats face emerges from elite actors within the incumbent coalition. In particular, coups have been the modal type of autocratic breakdown in the 20th century (see Goemans, Gleditsch, and Chiozza 2009; Svolik 2009).

Because a large proportion of autocratic failures follow from a coup and recent studies tend to focus on the way survival strategies influence mobilization from outsiders and not from elite-actors, in the following pages we examine how co-optation and repression within the ruling elite influence the likelihood of coups in autocratic regimes.

THE ARGUMENT

Our analytical point of departure is the recent literature on authoritarianism, which considers how leaders employ strategies of co-optation and repression to stay in power. However, contrary to extant approaches examining how these strategies prevent and/or suppress the emergence of threats from below, we apply the co-optation—repression framework to understand intra-elite conflict in autocratic regimes, and in particular how these strategies influence the risk of coups. Our theory focuses on how leaders' strategies to suppress insiders' rebellion influence actors' incentives to organize coups. We argue that the presence of elected legislatures not only helps leaders to make policy concessions to appease the masses (e.g., Gandhi 2008a), but also allows them to co-opt insiders and reduce conflict within the regime coalition. Our first theoretical expectation is that elected legislatures reduce the propensity of coups. Furthermore, while purges represent one tactic to punish potential enemies within the elite, we claim that repression deplete bases of support and thus are likely to increase the likelihood of coups.

Legislatures and coup onset

Although most coups are materially executed by the armed forces (e.g., Kebschull, 1994), coups often involve alliances between military leaders and other actors from within the ruling elite that are dissatisfied with the incumbent leader (see, e.g., Needler 1968; O'Donnell 1973). Because of this, authoritarian leaders need the loyalty of the military and other elite actors that may conspire and organize violent actions against them. Gandhi and Przeworski (2007, 1280) observe that "to neutralize threats from larger groups within society and to solicit the cooperation of outsiders, autocrats frequently rely on nominally democratic institutions. Specifically, partisan legislatures incorporate potential opposition forces, investing them with a stake in the ruler's survival. By broadening the basis of

support for the ruler, these institutions lengthen his tenure." We extend this argument and claim that legislatures can also help autocrats to reduce conflict within the incumbent coalition and decrease the risk of coups. We detail below three mechanisms for why legislatures can help reduce the risk of coups.

First, elected authoritarian legislatures are useful instruments to make concessions with regards to public policies and satisfy elite's interests. As Gandhi (2008a, 78) argues, "encapsulating these groups within the legislature allows the dictator to negotiate over various policy realms without having to reconstitute his bargaining partner each time." Whereas this argument emphasizes how legislatures affect vertical relationships between leaders and broader segments from society, legislatures can also serve as an assembly where powerful elite actors reveal their preferences and negotiate their demands, in particular those related to state economic policies (e.g., not being expropriated, avoiding populist policies, etc.). If leaders do not satisfy such demands, elite actors are likely to conspire and promote military takeovers. Stated differently, legislatures allow leaders to be aware of and negotiate the demands of elite actors that, if not tackled, increase their discontent with the status quo and the ensuing risk of coups.

Second, legislatures shape inter-temporal decisions of actors that are inclined to support liberalization and democratization. Whereas soft-liners, pro-democratic actors within the regime coalition can see a coup as a shortcut to a (potentially) more open political regime, they are certainly aware that coups are often associated with greater instability and that potential allies may not be willing in establishing a liberalized regime, but a new autocracy. From this perspective, while coups are costly for pro-democratic actors, the existence of legislatures significantly increases these costs. The reason of this stems from the fact that pro-democratic actors within an authoritarian coalition may consider the legislature as an effective forum to advance liberalization through negotiation rather than via coup. Hence, we posit that legislatures contribute to autocratic stability by restraining actors that in other

conditions may support violent actions against a leader. Instead, legislatures give them the possibility to promote liberalization, although slowly, within the assembly.

Finally, authoritarian legislatures not only provide information about the preferences and demands from actors outside the supportive coalition, but also allow leaders to identify threats from insiders (see, e.g., Lust-Okar 2005; Wright 2008). This informational role of legislative assemblies is critical given the nature of non-democratic regimes. As Wintrobe (2007: 366) puts it, "the use of repression breeds fear on the part of a dictator's subjects, and this fear produce a reluctance to signal displeasure with the dictator's policies. This fear on their part in turn breeds fear on the part of the dictator. The more his elite stifles dissent and criticism, the less he knows how much support he really has among the population." From this perspective, legislatures convey valuable information that reduces information asymmetries and facilitate leaders to detect dissatisfied elite actors that are more likely to mobilize and overthrown the incumbent leader. This is a key attribute of legislative assemblies since they are useful instruments to identify potential plotters that can be punished selectively to enhance autocrats' power.[3] The next hypothesis summarizes the discussion above:

Hypothesis 1: Legislatures will decrease the risk of coups in autocratic regimes.

Purges and coup onset

The primary objective of political leaders is to survive and maximize power. To achieve this goal, authoritarian leaders do not only control the selection of the elite corps but also their fate. Despite recent scholarship on authoritarianism tends to focus on government repression against the masses (see, e.g., Acemoglu and Robinson 2006; Albertus and Menaldo 2012), attention to repression against

[3] Wright (2008) suggests that legislatures serve for different purposes depending on the regime type. Whereas leaders in military and single-party regimes build legislatures as a credible constraint on the leader's confiscatory power, monarchies and personal dictators use legislatures to "split and pay off" potential opposition.

political enemies within the inner circle and the armed forces is by no means new to political science. In his political treatise *Il Principe*, for example, Machiavelli (1532 [2003]) advocated violence as a necessary instrument for the successful stabilization of power and the introduction of new institutions. Force should be used to eliminate political rivals and to purge the community of other men capable of ruling, who will inevitably attempt to replace the prince. Fear and cruelty both within the army and the elite were advisable (Machievelli 1532 [2003], Chap. 17 and 19). Purges, generally defined as the removal of elite members through violent means, constitute an instrument to eliminate potential threats within the leader's inner circle. Indeed, sometimes rulers have incentives to deploy violent repression to prevent the accumulation of power at hands of seemingly rival actors within the elite.

The main objective of purges is to assert the leadership's primacy and underline the correctness of its line. The imprisonment and execution of potential enemies within society help to intensify the atmosphere of terror at large, but the purge itself has an identity of its own and refers specifically to processes affecting the ruling bodies (see Brzezinski 1958). From an autocrats' perspective, purges are expected to ensure that no individuals become too powerful to seriously threaten his power,[4] and thus have been used to dissuade and/or eliminate political enemies in order to maintain power and avoid uncertainty (e.g., Iraq under Saddam Hussein, the Central African Republic under Jean-Bedel Bokassa or in Zaire under Mobutu, see Frantz and Ezrow (2011)). Saddam Hussein, for example, executed most members of his elite support group in 1979, replacing them with new supporters. Of those executed, most had been among his most intimate associates (Ezrow and Frantz 2011). Moreover, regardless of their legitimate fears, authoritarian leaders may overuse repression because their decisions to coerce are strongly affected by subjective calculus with regards to their own power, loyalties, and threats (see, e.g., Poe 2004). Take for instance the case of the Soviet Union under Stalin, where senior

[4] We use him/his here consistently instead of gender neutral language as dictators tend to be men.

officers were randomly purged over the so-called "Great Terror," between 1937 and 1939 (see Lskavyan 2007).

Purges may reinforce the ability of autocrats to control the selection and fate of their support group, and as we outlined above several historical examples suggest that repression within the incumbent coalition helps enhance leaders' survival. That is, elite repression is not entirely irrational, but a risky endeavor to maintain power. Without denying that repression of elite actors has prevented defection and violent takeovers against leaders in some specific cases (see e.g., Frantz and Ezrow 2011), we argue here that violent repression against insiders is generally counterproductive for the survival of autocratic leaders. This is because repression against members of the supporting coalition shapes actors views with regards to the leader and their own prospects for life. Indeed, when actors within the ruling coalition perceive that resort to repression by the leader is unfair or even unpredictable, they are more likely to consider their safety at high risk and hence will be more prone to lead or support a plot against the dictator.

Drawing on the above discussion, we claim that some actors within the ruling elite will be more likely to organize a plot against the leader and take power because of their fear of being the targets of repression. This problem tends to be magnified the more the autocratic leader rules through repression and fear, and thus the more indiscriminate violence against members of the incumbent coalition is the greater the chances to see a violent takeover against the leader. Too much coercion to eliminate rival actors from within the inner circle can be seen as a signal of unconstrained power and uncertainty (Tullock 1987; Haber 2006). Therefore, carrying out a coup sometimes can be the last line of defense for elite actors who feel vulnerable to leader's decisions with regards to repression. The following hypothesis summarizes this reasoning:

Hypothesis 2: Purges will increase the risk of coups in autocratic regimes.

DATA

To test the effect of co-optation and repression within the ruling elite on coups, we conduct a cross-national time-series statistical analysis, in which coups in autocracies are regressed against elected authoritarian legislatures and purges, along with a set of other potential confounders discussed below. The unit of observation for our study is the state-year, and the spatio-temporal domain covers 114 autocracies for which data are available over the period 1950-2004. We determine the universe of autocracies based on Geddes, Wright, and Frantz (2014) dataset. By restricting our analysis to autocratic regimes, we avoid the implicit assumption that our explanatory variables may have similar effects on democracies and non-democracies alike, and isolate the impact of co-optation and repression to the universe of autocracies.

Dependent variable: Coups

Our main dependent variable is whether an autocratic regime experiences a coup d'état. We take this information from the Archigos Dataset, which provides information on how political leaders gained and lost power (Goemans, Gleditsch, and Chiozza 2009). According to the Archigos Dataset, leaders can lose office in a *regular manner*, *irregular manner*, *direct imposition*, and *natural death.* Most important for the purposes of this article, irregular transfers of power are observed when the prevailing constitutional rules regarding access to power are violated; these instances are the result of the threat or use of force by domestic actors (i.e., coups, revolts, assassinations). In particular, Archigos records a coup when (1) the threat or use of force is used, and (2) the military or government insiders are involved (see Goemans, Gleditsch, and Chiozza 2009).[5] In our data, we observe 134 instances of

[5] It is important to note that foreign actors play a minor role in these instances. As Goemans, Gleditsch, and Chiozza (2009: 273) note, "we do not code cases where another country is perceived or known to have orchestrated the

coups in non-democratic regimes over the period 1950-2004. We think that the Archigos Dataset allows us to rightly capture the concept of coups, where the threat or use of violence by military or elite actors influences regime change. This approach differs from recent measurement decisions, where scholars distinguish between successful and unsuccessful coups (e.g., Powell and Thyne 2010). As Marinov and Goemans (2014, 809) put it, however, "coup plots and failed attempts are difficult to establish systematically and independently of potentially questionable claims and interpretation by governments."

Independent variables: Elected legislatures and purges

The primary explanatory variables are elected legislatures and purges. To measure authoritarian elected legislatures, we employ the Democracy-Dictatorship (DD) data from Cheibub, Gandhi, and Vreeland (2010). As such, the DD data include a three-point indicator regarding the status of the legislature: 0 if the legislature is "closed", 1 if it is "appointed", and 2 if the legislature is "elected."[6] Based on this measure we create a binary variable coded 1 if the legislature is "elected" and 0 if the legislature is "appointed" or "closed." Our decision follows the argument that compared to appointed and closed legislatures, elected legislatures constitute an effective instrument to co-opt and reduce conflict within members of the incumbent coalition. Moreover, authoritarian leaders are more effectively restrained in elected legislative assemblies than in contexts where there is not a legislature or the existing legislature is appointed.

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removal of a leader through a coup carried out by domestic forces (for example, Allende in Chile or Mossadeq in Iran) as foreign removal, but simply as an irregular loss of office."

[6] To be clear, a "closed legislature" indicates that no legislature exists and "includes cases in which there is a constituent assembly without ordinary legislative powers." An "appointed" or non-elective legislature refers to cases where "the selection of legislators by the effective executive, or on the basis of heredity or ascription." Finally, "elected legislatures" refer to cases where "legislators, or members of the lower house in a bicameral system, are selected by means of either direct or indirect popular election" (see Cheibub et al.'s codebook).

A potential objection regarding our measurement decision about co-optation strategies is that legislatures capture an institutional device in authoritarian systems; yet our indicator of legislatures does not measure an autocrat's behavior directly. Put differently, it may be argued that our empirical strategy tests for the presence of a specific institution, instead than leaders' behavior. Although we acknowledge that authoritarian leaders can provide different benefits to co-opt members of the incumbent coalition,[7] the presence of a legislature constitutes an effective tool that helps them to co-opt potential rivals, and thus influences leaders' behavior by mitigating the sources of elite conflict. Indeed, extensive work in comparative politics shows that the presence of legislatures in authoritarian settings is related to specific behavior in different policy realms, including economic decisions and repression of the masses (e.g., Wright 2008; Gandhi 2008b; Conrad 2011). Following this approach, we consider that the presence of legislatures does not only reflect a particular institutional arrangement, but a leader's behavior, which is influenced by these institutions. This approach is consistent with dominant institutional approaches, where institutions do shape individuals' behavior and social interactions (see, e.g., Knight 1992; North 1990).

Our second main independent variable is purges. We measure purges using data from the Arthur Banks Cross-National Times Series (CNTS) Data Archive. The CNTS dataset provides event count data on purges and is based upon information from the New York Times. Purges are defined as "any systematic elimination by jailing or execution of political opposition within the ranks of the regime or the opposition" (Banks 2008). Although this indicator also includes violence against opposition outside the incumbent coalition, as far as we are aware the CNTS dataset is the only measure of repression against the members of the incumbent regime and hence it is the best proxy available to capture leaders' coercion against the internal elite opposition. This indicator has been

[7] Political leaders under authoritarianism often provide private benefits among insiders to reduce the probability of elite conflict, i.e., monetary rewards, luxury cars, mansions, Swiss bank accounts, etc. (see e.g., Wintrobe 1990; Gandhi and Przeworski 2007).

extensively used by recent studies on conflict, democratization, and development (see, e.g., Collier and Rohner 2008; Cunningham and Lemke 2011; Besley and Persson, 2011; Burke 2012).

As noted before, the existing literature on authoritarianism tends to see co-optation and repression as substitutive tactics in the leaders' toolkit to mitigate popular mobilization. In our data, we observe a similar pattern with regards to survival strategies at the elite level. The mean value of purges in autocracies without a legislative assembly is twice higher (.34) than the mean of purges in autocracies where an elected legislature is present (.18). Furthermore, we ran additional models on the presence of elected legislatures and purges. Although we did not find any significant effect of purges on elected legislatures in the multivariate analyses, the results show that elected legislatures have a significant negative effect on purges, indicating that legislative assemblies decrease the leaders' propensity to deploy repression against insiders. Overall, both the unconditional and conditional expectations of purges and legislatures suggest that repression and co-optation seem to be mutually exclusive strategies in the world of autocracies, although they are frequently used to fulfill similar goals.

Controls

Based on previous research we include a set of control variables that are associated with the likelihood of coups. Firstly, there is robust evidence that the risk of coups is lower in wealthier societies. We account for this possibility by including the natural log of GDP per capita from Gleditsch (2002). Secondly, we include the growth of GDP per capita since positive economic performance is expected to be negatively related to the probability of coups. Thirdly, researchers have shown strong evidence of the so-called "coup trap" (e.g., Londregan and Poole 1990), indicating that the propensity of experiencing a coup in a given year is a function of the country's history of coups. We consider this trend by controlling for the number of past coups. Fourthly, antigovernment protest by the masses may

induce mobilization by elite actors. We thus control for dissent as mobilization from below can motivate the emergence of elite actors that want to depose leaders and restore order. To measure popular dissent we sum the annual number of general strikes, anti-government demonstrations, and riots from the CNTS dataset[8] (Banks, 2008).

Fifthly, we include the number of soldiers in the armed forces, military expenditure per soldier, and the rate of growth of military spending to test whether "coup-proofing" strategies and the structure of the military influence the risk of coups (Powell 2012; Bohmelt and Pilster forthcoming). Data on military expenditures are taken from The Correlates of War (COW) National Material Capabilities database. COW data are in current USD and most of the previous literature does not deflate the series; however, inflation is a significant component of apparent growth in any series measured in dollars. We transform them into constant USD using the US CPI with 2000 as the base year. By adjusting for inflation we uncover the real growth and stabilize the variance of random or seasonal fluctuations.

Finally, we include several dummy variables for different types of autocracies. Contrary to earlier scholarship assessing the effect of military autocracies and collapses all other autocracies in a residual category, we use four categories distinguishing relevant differences among authoritarian regimes, i.e., military, single-party, personal, and monarchic autocracies (from Geddes, Wright, and Frantz 2014). This distinction is theoretically important because qualitative differences among autocracies help to explain variation on a wide variety of outcomes (see, e.g., Geddes 2003; Cheibub et al., 2010). While autocratic leaders generally seek to personalize power, the extent they maximize their power depends on the organizational strength of their supporting organizations (Haber 2006).

[8] *General strikes* are defined as any strike of 1,000 or more industrial or service workers that involves more than one employer and that is aimed at national government policies or authority. *Antigovernment demonstrations* account for any peaceful public gathering of at least 100 people for the primary purpose of displaying or voicing their opposition to government policies or authority, excluding demonstrations of a distinctly anti-foreign nature. *Riots* refer to any violent demonstration or clash of more than 100 citizens involving the use of physical force.

Single-party regimes are characterized by the presence of a mass-based party, which allows civil leaders to co-opt and target political opponents selectively (Cheibub et al., 2010). More specifically, leaders in single-party autocracies are better equipped than others to co-opt and subordinate the armed forces to political control (e.g., Peceny et al. 2002; Fjelde, 2010). Furthermore, soldiers are indoctrinated with party ideology and often party members are embedded in the armed forces to guard against subversive behavior (Frantz and Ezrow 2011). Examples of party propaganda within the armed forces are abundant, from China under Mao (Whitson, 1969) to Iran, where Islamic Commissars were assigned to the joint staff down to the platoon level and were responsible for the ideological and political education of the troops. Today, the People's Liberation Army (PLA) is still diligently obedient to the party's orders (Koh 2000). Therefore, the interference of the party at all levels of the military structure makes it difficult for the armed forces to challenge the regime, while the single-party apparatus can easily suppress the opposition within the state apparatus itself. This contrasts with political dynamics in military regimes that are more prone to experience elite divisions and have the shortest life span among autocracies (e.g. Geddes 2003).

EMPIRICAL RESULTS

Our empirical results are presented in Tables 1 and 2. In Table 1, Model 1 is our baseline model and display probit estimates with robust standard errors clustered by country. In Model 2 we add three variables for military, single-party, and personalist autocratic regimes. A fair objection would be to point at the presence of omitted variables affecting both the likelihood of coups and the presence of legislatures or the intensity of purges. To deal with this issue, we cannot however use fixed effects models as the constrained sample would only include those countries that experienced a coup at some point. As robustness checks, we use the Mundlak-Chamberlain approach, which allows us to avoid

using fixed effects while ensuring that the random effects model is valid (Mundlak 1978, Chamberlain 1980). Briefly, this consists in a random effect model, which allows for the correlation between the random effect and the observed characteristics by including the averages of all the covariates over the period 1950-2004. Thus, Models 3 and 4 replicate Models 1 and 2 using this approach.

Before discussing the coefficient estimates for our main explanatory variables, we summarize the results with regards to the control variables. The controls largely have the predicted signs and are consistent with previous scholarship on the subject. The coefficient for the log of GDP per capita has the expected negative sign, although it is not statistically significant at conventional levels. The negative and statistically significant coefficient for GPD per capita growth indicates that good economic performance strengths regime stability and reduces the risk of coups. In contrast, the coefficient for dissent is positive and significant, supporting the argument that antigovernment demonstrations trigger elite divisions and increase the likelihood of coups. The results also provide strong evidence that coup history matters, as the number of past coups increases the probability of coup events. The coefficient for the growth rate of military spending is not significant, although coefficient estimates for military size and military expenditure per soldier are negatively and significantly related to the onset of coups. Finally, the coefficient for military regimes is positive and statistically significant, indicating that leaders in military regimes are more likely to be replaced through a coup.

The empirical analysis supports our claim that strategies of co-optation and repression within the ruling elite affect the likelihood of coups. Consistent with Hypothesis 1, the coefficient of elected legislatures is negative and statistically significant at conventional levels in all models displayed in Table 1. The results indicate that elected legislative assemblies reduce the propensity of coups by helping leaders to process conflict within the ruling group. It is noteworthy that the size and magnitude of elected legislatures are rather stable across models, even after controlling for different types of non-democratic regimes in Models 2 and 4. The coefficient estimates furthermore show a positive and

significant relationship between purges and coups, indicating that repression against elite actors systematically affects leader's survival by motivating violent mobilization of insiders against leaders. Importantly, our results for elected legislatures and purges hold after controlling for other confounding factors and country-specific effects (see Models 3 and 4, where we employ the Mundlak-Chamberlain approach).[9]

In addition, Model 5 replicates Model 2 and adds two indicators for repression against the masses. Following Escriba-Folch (2013), we measure nonviolent repression using data on civil liberties restrictions from Freedom House. We also employ the Political Terror Scale (PTS) to measure state-sponsored repression. Both variables are lagged one year. The number of observations is significantly lower in Model 5 given that figures on civil liberties and repression are available since 1973 and 1976, respectively. As seen, the results for elected authoritarian legislatures and purges do not change substantively in Model 5. In line with Escriba-Folch (2013), the coefficient for civil liberties is negative, although it fails to reach statistical significance. The coefficient for state-sponsored repression against the masses is positive but insignificant. This result resembles previous analysis on authoritarian survival (see, e.g., Bueno de Mesquita and Smith 2010).

[Table 1 in here]

We acknowledge the possibility of endogeneity between the main explanatory variables and the outcome variable. For instance, someone may argue that an autocratic leader who came into power via a coup may have incentives to resort to purges in order to eliminate potential threats within of the ruling group. Similarly, it may be argued that a leader who took power through a coup may have

[9] We have also replicated Table 1 using a restricted sample including only those countries that have experienced at least one coup over the period 1950 – 2004. Results are robust to this restriction and are available upon request.

incentives to remove a legislative assembly that may be perceived as an obstacle to efficient governance. We deal with these endogeneity issues in two different ways. First, we ran two different models where authoritarian legislatures and purges are the dependent variable respectively, and a binary indicator of coup as independent variable. To be clear, we ran probit models to estimate the determinants of authoritarian legislatures and a negative binomial model for purges.[10] In none of these models we found a significant coefficient for coups, suggesting that the coup variable does not affect either legislatures or purges.

Second, we tried up to three different lags for elected legislatures and purges. As seen in Table 2, the coefficient for elected legislatures lagged 1, 2, and 3 years is negative and statistically significant in Models 6-8, respectively. We observe similar results for purges. In Model 6, Purges at time *t-1* is positive and insignificant, although the coefficient comes close to statistical significance at the 0.10 level. The coefficient for purges at time *t-2* and *t-3* obtains statistical significance in Models 7-8, respectively. Despite this strategy does not completely rule out the issue of reverse causality, it constitutes a useful check against cases where a coup is followed by purges or a change in the status of a legislature. Taken together, additional analyses add confidence to our results displayed in Table 1, indicating that elected legislatures decrease the risk of coups and purges increase the chances of coups.

Interestingly, a careful exploration of the data reveals that there are some cases that do not fit well with the argument we developed above. In particular, against our expectations we observe that a number of autocracies where elected legislatures are present and purges are absent experienced a coup.[11] Take for instance the cases of El Salvador in 1961 and Thailand in 1957, where intra-elite repression was absent and co-option institutions such as elected legislatures were in place. Broadly speaking, these cases suggest that authoritarian regimes with co-optation institutions are not entirely

[10] These results are available in the online appendix.
[11] We observe this in 18% of the total number of coups.

safe from experiencing violent takeovers by elite actors and call for further research on the subject. However, despite the limitations of our theoretical arguments, we explore in the next section the predictive power of our model and illustrate how the present analysis improves our understanding of coups in autocratic regimes.

[Table 2 about here]

SUBSTANTIVE EFFECTS AND PREDICTIVE POWER

For a more substantive interpretation of the empirical results, in this section we provide a graphical description of the effects of elected legislatures and purges on our main dependent variable. Figure 1 presents the effect of elected legislatures on the likelihood of coups. It shows that the risk of a coup is almost seven times higher in autocracies without an elected legislature than in autocracies with an elected legislative assembly. Similarly, Figure 2 presents the marginal effect of purges on the probability of coups. It shows that the positive effect of purges on the propensity of coups rises substantively as the number of purges increases, suggesting that indiscriminate violent repression against elite actors constitutes perhaps the most counterproductive strategy as it motivates violent mobilization by insiders. From these results, it is not only repression but the level of repression what motivates insiders' collective action in order to overthrow the leader. This finding fits well with our argument as we claim that insiders who perceived that violence is unfair and unpredictable will have higher incentives to plot against an autocratic leader. According to this perspective, a higher number of purges should be related to greater unfairness and uncertainty and hence insiders' violent mobilization will be more likely.

[Figures 1 and 2 in here]

In-Sample and Out-of-Sample Predictions

The traditional approach to the study of coups has so far mainly focused on the statistical significance of the explanatory variables. Nevertheless, the statistical significance alone often leads to modest improvements in our ability to predict military takeovers. Therefore, Figure 3 plots the predictive power of the full model (full) and assesses the predictive power of some of the key independent variables included in Model 1 from Table 1, including elected legislatures and purges. We do this by deleting one independent variable from the model at a time, and then measuring the effect that the deletion has on the resultant model's ability to make in-sample predictions.

The ability to make predictions across the full range of possible thresholds can be inferred from the size of the area between the X-axis and the ROC curve, the area under the ROC curve (AUC), which ranges from a minimum of 0.5 (in the case of random guess) to 1.0 (in the case of a perfect model with no false negatives as well as no false positives). Figure 3 demonstrates that our model has a predictive power (in terms of the area under the ROC curve) of 0.849 (solid black line). To see the marginal contribution that one of the most important variables in the literature (i.e., dissent) makes to the original model's overall predictive power, we look at the difference between the area under the ROC curve calculated for the full model and the corresponding area calculated for a model that lacks the level of social instability. As seen, the two curves almost overlap and the model's predictive power falls from a value of 0.849 to 0.832. At the margins, the dissent variable makes a contribution of roughly 0.017 units to the overall predictive power of the model.

We repeat the same approach by putting back the level of instability and excluding the military expenditure per soldier, which is an important determinant of coups (Powell, 2012). The exclusion of this variable decreases the predictive power by only 0.004 units. Finally, we exclude from the full model our variable for elected legislatures and then elected legislatures and purges together. We see

that deleting legislatures from the full model results in the area under the curve decreasing to a value of 0.777, while when both legislatures and purges are excluded from the original specification the predictive power of the model falls from 0.849 to 0.754, which is substantially higher than previous decreases. This shows that while two of the most important theoretical variables in the literature do not have a substantive predictive power, the inclusion of our proxies for repression and co-optation improves the performance of the model.

[Figure 3 in here]

A final important question is whether our conclusions are robust when we employ an out-of-sample forecast. We thus employ a four-fold cross-validation quasi-experimental setup that was repeated 10 times – either for the baseline model or a model that omits an explanatory variable from the estimation (see Ward et al., 2010, for more details). Figures 4 and 5 depict our findings based on this approach. The left panel of Figure 4 shows the estimates of the area under the ROC curve for the full sample (Model 1 in Table 1) and the right panel displays the estimates of the area for a model that leaves out the level of dissent. Our four-way cross validation estimates are shown by dots while the 95% confidence intervals are represented by vertical bars. The dashed horizontal lines display the mean estimate of the area over all four-way cross-validations, repeated for 10 different random partitions of the data. We see that the power of the full model remains reasonably and considerably high; however, the predictive power of the full model or the constrained model where we discard the level of instability are quite similar. This lends support to our in-sample predictions.

In Figure 5 we discard our core explanatory variables, the presence of elected legislatures (left panel) and elected legislatures and purges together (right panel). As expected, the average area under the curve of the estimations without elected legislature is at roughly 0.80, which is substantially lower

than the area of the out-of-sample prediction for the full model (0.87). Moreover, the area under the curve further decreases when we leave elected legislatures and purges together (right panel) as compared to the out-of-sample values of the model without legislatures (from 0.80 to 0.76). Hence, the predictive power of elected legislatures and purges remains substantial even when conducting the tougher out- of-sample prediction.

[Figures 4 and 5 about here]

CONCLUSION

While not denying the importance of randomness and intangibles, we believe that there are factors systematically related to the onset of coups in non-democratic regimes. The present study has thus examined how leader's strategies of co-optation and repression within the elite affect the likelihood of coups. Theoretically, we extended previous analytical models of authoritarian survival, which highlight that strategies of co-optation and repression are useful instruments to prevent and suppress mobilization by the masses. We argued that leaders also use these strategies to ameliorate threats emerging from opposition actors within the incumbent coalition. We claim that legislatures are instruments that autocrats employ to co-opt members of the incumbent coalition and hence are expected to enhance stability. We also argued that purges of elite actors can be counterproductive, as violent repression against them depletes bases of support and increases the propensity of coups.

The empirical analysis provides strong support for our claim that co-optation and repression strategies within the ruling elite have different effects on the risk of coups in autocracies. We demonstrate that the presence of elected legislatures reduces the propensity of coup events. We also find that repression against insiders has the opposite effect as it increases the risk of leaders'

replacement via coup. Furthermore, we have shown that considering repression and co-optation improves significantly our ability to forecast the onset of coups. Despite authoritarian leaders such as Stalin and Hussein fostered the impression that harsh repression against actors within their inner circle can strengthen leaders' power, the statistical results suggest that on average repression of insiders is ineffective. Violence against elite actors has unwanted effects and can act as a boomerang that hinders autocratic survival. More broadly, this article has shown the usefulness of theoretical and empirical disaggregation with regards to survival strategies, depending on the type of actor an autocratic leader wants to co-opt or repress, as well as the manner an autocrat lose power.

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Table 1: Probit estimates of coups in autocracies

	1	2	3	4	5
Elected legislature	-0.908***	-0.858***	-0.938***	-0.887***	-0.906***
	(0.098)	(0.104)	(0.109)	(0.119)	(0.161)
Purges	0.101*	0.095*	0.105*	0.100*	0.416***
	(0.057)	(0.057)	(0.058)	(0.059)	(0.159)
Ln GDP pc	-0.044	-0.021	0.095	0.076	-0.067
	(0.059)	(0.063)	(0.171)	(0.169)	(0.086)
Growth GDP pc	-0.964***	-1.018***	-1.025**	-1.002**	-1.363***
	(0.365)	(0.366)	(0.410)	(0.405)	(0.448)
Dissent	0.367***	0.343***	0.358***	0.363***	0.253***
	(0.074)	(0.075)	(0.081)	(0.083)	(0.094)
Growth military expenditures	0.044	0.026	-0.037	-0.043	0.152**
	(0.049)	(0.049)	(0.059)	(0.059)	(0.060)
Military personnel, logged	-0.180***	-0.182***	-0.012	-0.042	-0.172***
	(0.038)	(0.038)	(0.114)	(0.110)	(0.064)
Military expenditure per soldier	-0.142**	-0.135**	0.059	0.054	-0.178**
	(0.062)	(0.059)	(0.099)	(0.096)	(0.088)
Past coups	0.087***	0.084***	0.083***	0.082***	0.112***
	(0.013)	(0.013)	(0.014)	(0.014)	(0.025)
Single-party		0.211		0.161	4.344***
		(0.269)		(0.301)	(0.360)
Military		0.504*		0.430	4.635***
		(0.273)		(0.305)	(0.409)
Personalist		0.324		0.239	4.390***
		(0.265)		(0.294)	(0.387)
Civil liberties					-0.070
					(0.076)
Repression (PTS)					0.040
					(0.087)
Constant	0.307	-0.216	1.212*	0.719	-3.548***
	(0.531)	(0.730)	(0.689)	(0.856)	(1.187)
N	3333	3333	3333	3333	1665
pseudo R-sq	0.210	0.219			0.282
RE	NO	NO	YES	YES	NO

Robust standard errors clustered by country in parentheses.
* p<.10; ** p<.05; ***p<.01

Table 2: Probit estimates of coups in autocracies

	6	7	8
Elected legislature *t-1*	-0.387***		
	(0.098)		
Elected legislature *t-2*		-0.261**	
		(0.104)	
Elected legislature *t-3*			-0.210**
			(0.102)
Purges *t-1*	0.037		
	(0.025)		
Purges *t-2*		0.047*	
		(0.028)	
Purges *t-3*			0.048*
			(0.026)
Ln GDP pc	-0.097	-0.116*	-0.139**
	(0.061)	(0.062)	(0.064)
Growth GDP pc	-0.731**	-0.775**	-0.769**
	(0.357)	(0.362)	(0.373)
Dissent	0.389***	0.374***	0.384***
	(0.072)	(0.072)	(0.079)
Growth military expenditures	0.026	0.025	0.022
	(0.042)	(0.046)	(0.049)
Military personnel	-0.156***	-0.161***	-0.160***
	(0.036)	(0.036)	(0.036)
Military expenditure per soldier	-0.119*	-0.116*	-0.103
	(0.063)	(0.065)	(0.068)
Past coups	0.086***	0.088***	0.089***
	(0.012)	(0.012)	(0.013)
Constant	0.187	0.242	0.248
	(0.527)	(0.550)	(0.575)
N	3236	3128	3015
pseudo R-sq	0.121	0.115	0.114

Robust standard errors clustered by country in parentheses.
* p<.10; ** p<.05; ***p<.01

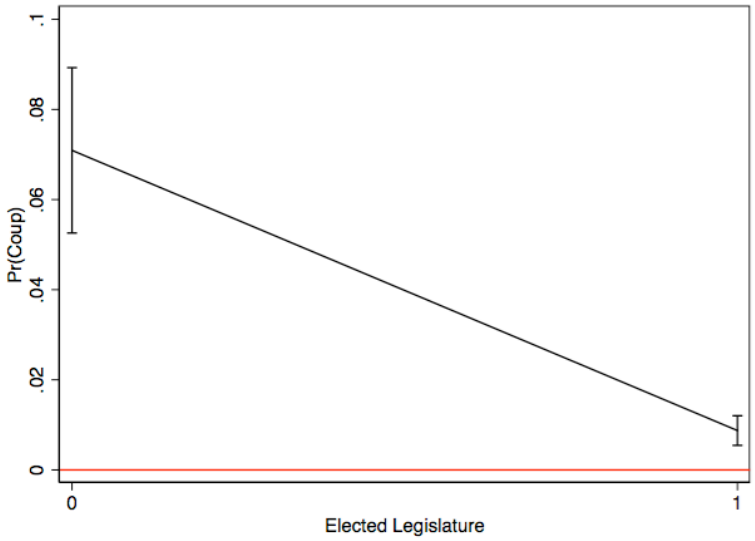

Figure 1: Effect of elected legislatures on the likelihood of coups

Note: Based on estimates from Model 1, all other values held at the mean. Adjusted predictions with 90% CIs

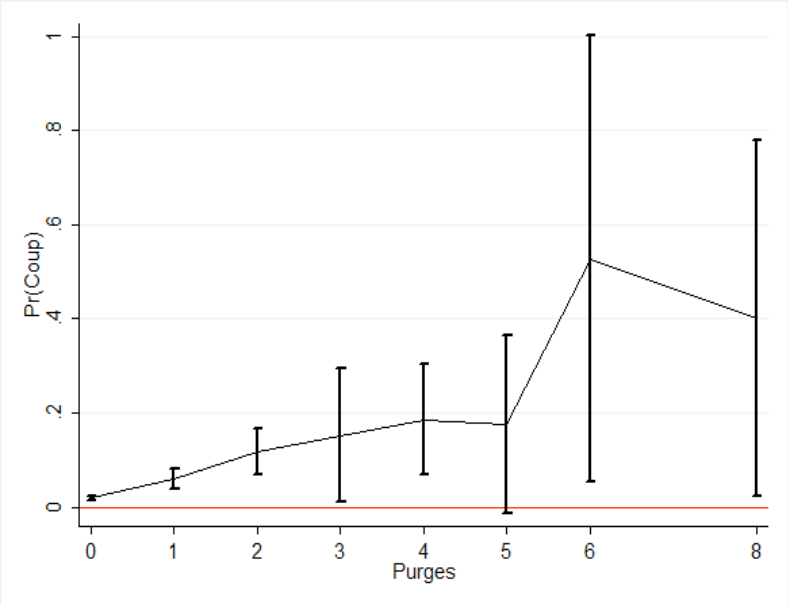

Figure 2: Effect of purges on the likelihood of coups

Note: Based on estimates from Model 1, all other values held at the mean. Adjusted predictions with 90% CIs

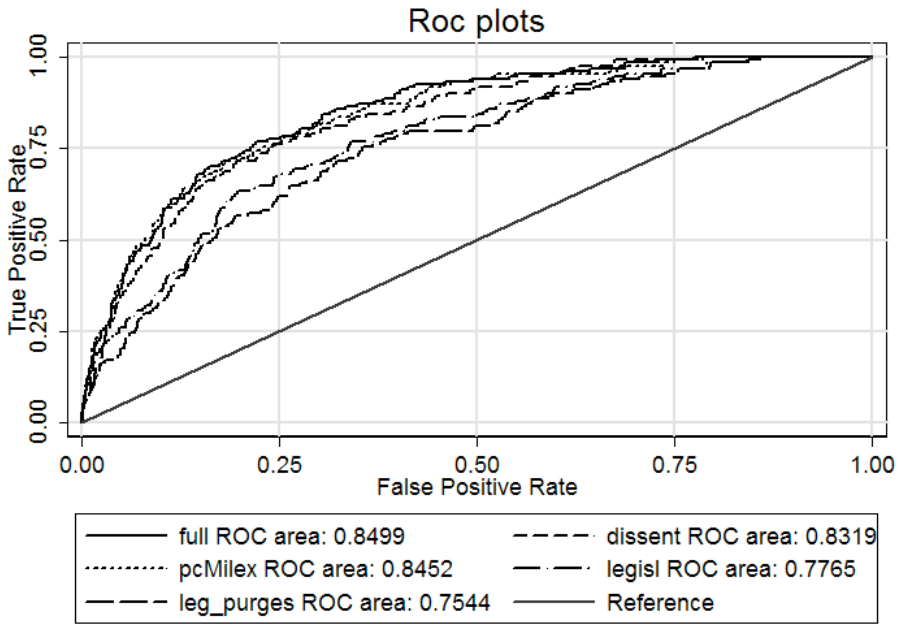

Figure 3: Roc Plots

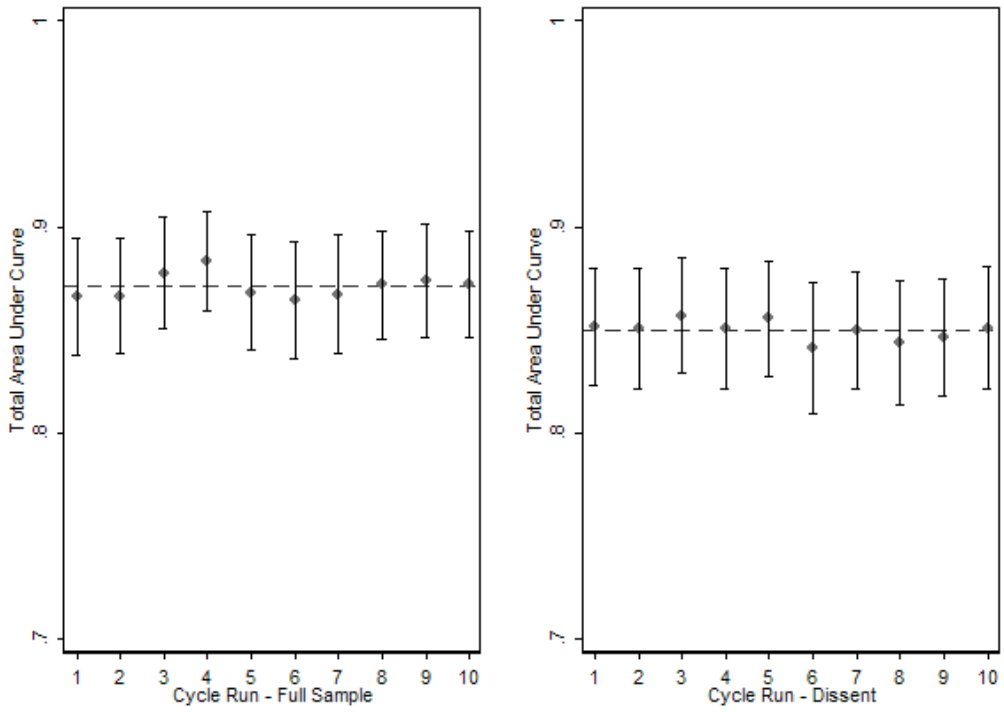

Figure 4: Out of Sample Prediction: 4-Way Cross Validation

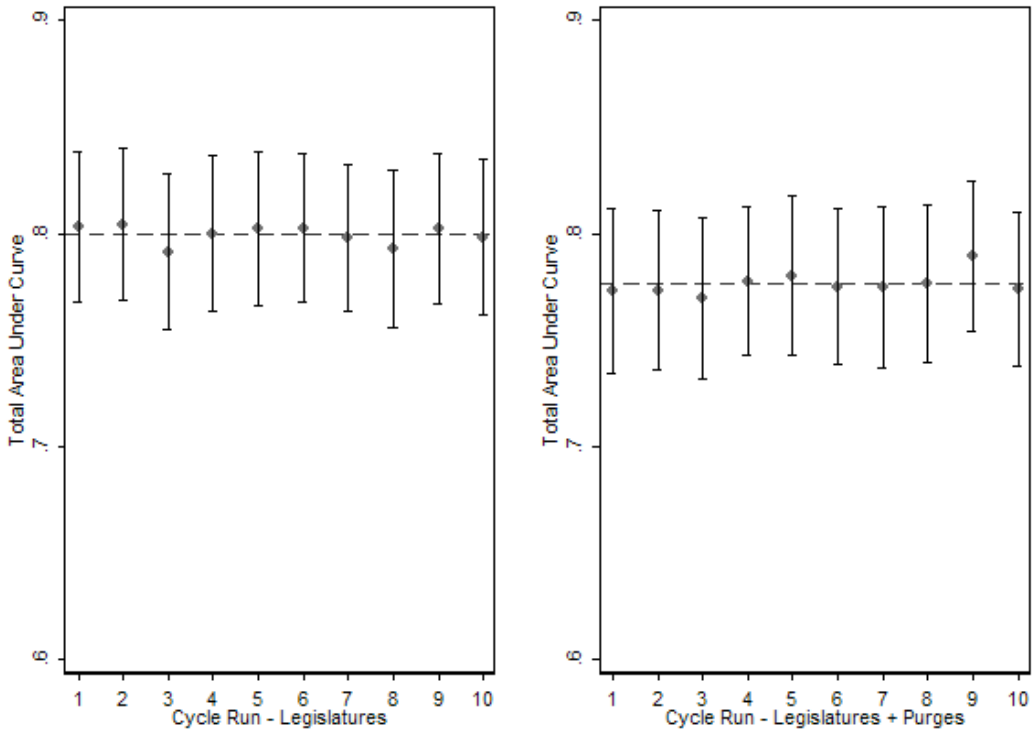

Figure 5: Out of Sample Prediction: 4-Way Cross Validation