# Domestic Security Capacities and Regime Resilience in Autocracies and Democracies 

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#### Abstract

Strong domestic security organizations (DSOs) often conjure up images of autocratic repression, yet we know relatively little about how the domestic security apparatus actually affects the ability of not only authoritarian leaders, but also democratic regimes, to maintain power. This study employs original data on key DSO features from 193 countries to systematically analyze how these organizations impact the resilience of both authoritarian and democratic regimes. I find that while having more DSOs in general is associated with improved authoritarian resilience, increasing the number of specialized organizations with greater capacity to collect intelligence or with strong paramilitary capabilities is associated with an increase of up to $50 \%$ in democratic resilience. The results are robust to a host of sensitivity analyses as well as GMM models accounting for serial correlation and endogeneity. I conclude with a discussion of this study's implications to research on authoritarianism and democratization and domestic security.


Keywords: authoritarianism, democracy, paramilitaries, domestic security, repression

The ability of the state to implement its domestic security policies crucially relies on the agents designed to monitor and enforce these policies (Poe and Tate, 1994; DeMeritt, 2016; Davenport, 2007; Brewer et al., 1996; Reiner, 2000). As a result, recent years saw scholars emphasizing the role of security agents in a host of domestic political phenomena, including coups and regime instability (Harkness, 2018; Carey, Colaresi and Mitchell, 2016; Bo hmelt and Clayton, 2018), repression and mass killing (Mitchell, Carey and Butler, 2014; Koren, 2014; Ahram, 2014; Stanton, 2015; Mason and Krane, 1989), nonviolent resistance (Chenoweth and Ulfelder, 2017), civil war (Carey, Mitchell and Lowe, 2013; Jentzsch, Kalyvas and Schubiger, 2015; Aliyev, 2016; Bo hmelt and Clayton, 2018), sexual violence (Cohen and Norda is, 2015), and political ideology (Staniland, 2015).

Interestingly, a surprising lack of attention has been given to the role of the state's formal agents, namely its domestic security organizations (hereon, DSOs), considering that the aforementioned streams of research often focus on the impact of informal and semi-official organizations. Partly, this is because the behavior of formal DSOs is assumed to directly reflect regime decisions, which explains why the two are rarely studied separately (Davenport, 1996; Reiner, 2000). DSOs represent the quintessential "state monopoly on violence" (Weber, 2016); while the military reflects the state's ability to wage external violence, DSOs represent the same with respect to internal violence (Davenport, 1996). Research, however, highlighted the problems inherent to such a holistic perspective, showing that the type of security organization and its particular characteristics can affect the propensity of violence within and by the state, especially with respect to auxiliaries and militias (Carey, Mitchell and Lowe, 2013; Bo hmelt and Clayton, 2018; Koren, 2014; De Bruin, 2019).

One area where the role of agents is especially important relates to the ability of regimes, specially (in this study) authoritarianism and democratic ones, to stay in power, a capacity I refer to here as 'resilience.' Research on regime resilience tends, for very reasonable reasons, to focus on the political leadership, highlighting factors such as the length of existence and robustness of political institutions (Svolik, 2008; Przeworski, 2010), economic performance (Feng, 1997; Przeworski, 1986), the incumbent's party strength (Riedl et al., 2020; Wright and Escriba`-Folch, 2012), and electoral and policy influences (Smyth, Bianco and Chan, 2019; Levitsky and Way, 2012). Other scholars examine particular behaviors and interactions at the leadership level and how they impact democratization and authoritarianism patterns, including the size, type, and capacity of the group seizing power (Geddes et al., 2018), civil-military relations and separation of the military from the state (Huntington, 1995; Janowitz, 1988), and the size of the selectorate supporting the incumbent (Bueno De Mesquita et al., 2005).

Despite these useful insights, we are still missing effective understanding of whether and how the coercive apparatus influence regime resilience. That is not to say scholars did not look into the relationship between the formal security apparatus and the political leadership, especially in authoritarian states. Greitens (2016), for instance, finds that the type of domestic security organization autocrats develop (or co-opt) depends on their threat perception. Carey, Colaresi and Mitchell (2016) similarly find that non-democratic leaders who fear being ousted by their formal security apparatus frequently rely on semi-official militias as an alternative. And Scoggins (2020) finds that in China, the behavior of security operatives sometimes backfires, causing more protests. However, we are still missing a systemic evaluation not only of how the political leadership defines and shapes the security apparatus, but also the opposite relationship, namely how formal security
organizations impact regime stability, and - moreover - whether this relationship varies across authoritarian and democratic states.

The present study revisits these questions, focusing on a cross-national global comparative perspective. Building on past research (e.g., Greitens, 2016; Carey, Colaresi and Mitchell, 2016; De Bruin 2018), I explain why, in general, a higher number of formal DSOs improves authoritarian regime resilience. However, and perhaps contrary to common belief, I argue that domestic threat perceptions in democracies suggests such state would benefit from a higher number of specialized DSOs. In autocracies, where the greatest threat to the leader or ruling elite is often posed by their own security forces, relying too heavily on one specialized organization to maintain power can backfire, e.g., in the form of a coup (Harkness, 2018; Carey, Colaresi and Mitchell, 2016), so DSO proliferation provides stability. In this case, the key threat is to the security and standing of the leader or the ruling elite. In contrast, democracies are more vulnerable to attacks against their citizens and political institutions; proofing the regime against external threats aimed at these targets helps to maintain viability and democratic resilience. As the range of viable threats in this case is often more diverse, having a set of specialized organizations to serve as complements to identify and eliminate particular threats (e.g., terrorism, hostage crises, violent riots, maritime domain attacks) is much more likely to improve resilience in the long term.

Having developed a theory on how specialized and unspecialized DSOs impact regime resilience in both authoritarian and democratic states, I empirically evaluate these relationships using original data on all formal domestic security organizations worldwide. Here, I code the number of all DSO within each state since the Cold War, in addition three specialization characteristics, namely whether the organization is (i) an intelligence gathering organization, (ii) a plainclothes organization, or (iii) a paramilitary (as defined below). I then conduct three stages
of analysis to establish not only an associative relationship, but also a causal effect. I begin by testing how the number of DSOs and, separately, specialized organizations is each associated with the probability of a given state becoming or remaining an autocracy in a given year, accounting for key alternative explanations. I then estimate a set of robustness models (reported in the Supplemental Appendix) to account for sampling and modeling choices and additional confounders. In the third stage, I identify a set of relevant states where I code time-varying data on all DSOs and their specialization (or lack thereof) over the 1981-2018 period to capture variations of both regime type (e.g. in 1989) and change in the nature and number of different DSOs. I then estimate a set of generalized method of moment (GMM) models with internal instruments to 'exogenize' the effect of the DSO indicators with respect to regime type (Blundell and Bond, 1998), thus ensuring that any identified effects are robust to any serial correlation and endogeneity concerns, which may exist in such time series data.

In conducting these different analyses, I find strong support for my theoretical assumptions. Substantively, a change from minimum (0) to maximum (11) in the number of DSOs is associated with more than a $50 \%$ increase in the probability a given state will become or remain authoritarian in a given year. However, I also find that changing the number of intelligencegathering and - separately - paramilitary DSOs from minimum to maximum is associated in each case with a nearly $50 \%$ decrease in the risk of a state becoming authoritarian, i.e., with greater democratic resilience. My findings hence have implications to research on authoritarianism (e.g., Levitsky and Way, 2012; Smith, 2005; Smyth, Bianco and Chan, 2019), democratic resilience (e.g., Przeworski, 2010; Svolik, 2008), as well as to research that highlights the role of the security apparatus in shaping a variety of phenomena at the political and national levels (e.g., Greitens, 2016; Harkness, 2018; Carey, Colaresi and Mitchell, 2016; Huntington, 1995). My DSO data also
adds to recent important data collection efforts on security agents, including the Pro-Government Militias Dataset (PGMD) (Carey, Mitchell and Lowe, 2013), which codes the presence and activity of militias, and the State Security Forces (SSF) (De Bruin, 2019), which also codes different types of official security organizations. I discuss some of these implications in the conclusion.

## Domestic Security Organizations and Democratic Resilience

## Defining domestic security organizations (DSOs)

Before discussing my theoretical argument, it is important to define what I mean by "domestic security organizations (DSOs)," and how my definition differs from definitions used in other studies (I additionally discuss the empirical coding guidelines in the empirical section). In creating my coding standards for DSOs, I bear in mind that these formal organizations represent the state's monopoly on the use of force domestically (Weber, 2016); DSOs are the "custodians of the state's monopoly on force" (Brewer et al., 1996, 21), and are most often the "specialized body given primary formal responsibility for legitimate force to safeguard security" (Reiner, 2000, 7). Accordingly, to be considered a DSO, a security organization must fulfill four requirements:

1. It must be an integral part of the state security apparatus, meaning it is a state-sanctioned organization, with some level of supervision at the local, regional, or national level (e.g., a department), i.e., not a militia, a rebel group, an auxiliary, or an informal organization.
2. It is armed, i.e., it has the capacity to carry firearms, either openly or concealed.
3. It must be concerned primarily with domestic security. It is possible that some police forces might be deployed abroad, e.g., in conquered territories, or even to fight in limited capacity, as is the case for some gendarmeries (e.g., the Italian Carabinieri). Nevertheless, the organizations primarily designation should be handling threats to domestic security.
4. It is not part of the traditional arms of the military (army, navy, marines, air force).

Note that a DSO can be not only a unitary organization, but also an umbrella to several smaller organizations with the same responsibilities and capacities, which operate (semi-) independently within distinct geographic jurisdictions. For example, police precincts in different cities are all trained and operate locally, and report to officials within their own respective jurisdiction (e.g., locally elected sheriffs). Yet, these organizations all represent a similar capacity - local policing making 'local police' the umbrella DSO (the same is true for state police). I did include indicators for level of operation (local, province/state, or national) when coding these data (as discussed in the Supplemental Appendix).

In defining DSOs in this manner, I am able to identify a set of organizations and security repertoires that directly relate to the theoretical argument I develop below. By focusing strictly on formal organizations, my definition of DSOs differs from past datasets such as the ProGovernment Militias Dataset (PGDM) (Carey, Mitchell and Lowe, 2013), which codes only groups with semi-official or informal ties to the regime. A closer definition of a DSO is used by the State Security Forces (SSF) dataset (De Bruin, 2019), which similarly codes organizations that are armed, not part of the military, and administered by a recognized state. However, my definition of DSO as captured in the four conditions above is substantively different from the SSF's. Empirically, my DSO data includes traits that are specific to the present study's questions of interest - namely intelligence gathering, plainclothes, and paramilitary capacities (as discussed below) - whereas the SSF focuses more on traits such as command arrangements, civilian participation, combat or domestic assignments, and type. Additionally, whereas the cross-sectional
section of my DSO data covers 193 countries, the SSF focuses on 110 randomly- sampled countries.

## DSO redundancy in authoritarian states

Authoritarian governments often rely on the support of powerful domestic actors to maintain power (Geddes, 1999; Geddes et al., 2018; Bueno De Mesquita et al., 2005; Smyth, Bianco and Chan, 2019). A particularly important role in achieving this aim is given to the security apparatus. In some regimes, such as military juntas, the security apparatus effectively controls the state, but even in nonmilitary authoritarian regimes, domestic security forces (e.g., presidential guards, national police) play a key role in maintaining the legitimacy of the ruler, and in identifying and preventing anti-regime plots and actions (Carey, Colaresi and Mitchell, 2016; De Bruin, 2018; Harkness, 2017). As such, in order to maintain power, authoritarian leaders rely on the loyalty of their security organizations, which keep them in power and helps enforcing security and political policies (Greitens, 2016).

Because of their crucial role in ensuring regime stability and power, both the military and domestic security organizations (DSOs) can also pose a threat to the leader. For instance, the military or a DSO could mobilize against the regime due to disputes over power, resources, or political influence, or grievances held by rank-and-file troops (Powell, 2012; De Bruin, 2018; Carey, Colaresi and Mitchell, 2016; Harkness, 2018; Belkin and Schofer, 2003). Due to the resources and capacities available to these organizations, and the important and powerful position they hold within the regime, if they mobilize, the military and DSOs have significant chance of succeeding in their effort (Powell and Thyne, 2011; Belkin and Schofer, 2003; Harkness 2018).

One way to mitigate the risk posed by security organizations is to "proof" them against the possibility of security force mobilization (Powell and Thyne, 2011; Powell, 2012). In particular, "counterbalanced" security organizations, whereby the state's armed forces are divided into rival organizations that check each other, and where each is directly accountable to the leader, can increase authoritarian regime resilience, reducing the possibility of anti-leader mobilization (De Bruin, 2018; Powell, 2012; Belkin and Schofer, 2003; Greitens, 2016). Indeed, research have found that authoritarian leaders actively counterbalance on the presumption that doing so will help them stay in power. Powell, for example, finds that "increasing the relative strength of a paramilitary versus the regular armed forces can act as a deterrent for coups" $(2012,1036)$. Additionally, De Bruin finds that although the proliferation of DSOs does not reduce the risk of coups, "counter- balancing prevents successful coups largely because counterweights [alternative DSOs] use force to defend incumbent regimes" $(2018,1452)$.

Coup d'état by formal forces is not the only risk to long-term resilience in authoritarian regimes. For instance, civil disobedience campaigns and civil wars can result with the ultimate removal of the regime. As a result, we often see authoritarian states that are engaged in repression or counterinsurgency campaigns build up or sponsor semi-official or informal forces (e.g., militias) to substantiate fighting and repression capacities and obtain local information (Carey, Colaresi and Mitchell, 2016; Koren and Mukherjee, Forthcoming). Often, these non-formal groups augment existing capacities within the formal apparatus rather than to fully substitute formal organizations, e.g., via providing local information or means of controlling the civilian population. Yet, especially under civil war conditions, such groups may be able to take advantage of their specialized capacities, increasing power and political influence with respect to the government. As a result, authoritarian regimes that stay in power are those where militias compete with rather than augment
formal organization capacities, and where the - if the military mobilizes - the leader can turn to a militia as an alternative and vice versa (Carey, Colaresi and Mitchell, 2016). The same approach is even more valid for competing formal organizations, which - because the government can design a more effective system of monitoring and rewarding troops (Koren and Mukherjee, Forthcoming) - are more easily controlled and managed by the leader or elite, including in crisis situation. All else equal, authoritarian regimes are hence more resilient if leaders can "divide their coercive power into multiple, overlapping security forces, which report to the regime through different chains of command" (De Bruin, 2018, 1437), which reduces both the ability of internal anti-regime action by the military or a DSO, and the probability that such mobilization will be successful (Powell, 2012).

In other words, authoritarian regime resilience increases with DSO redundancy: the existence of a set of formal nonspecialized organizations with overlapping capacities and responsibilities but with direct loyalties to the leader or elite, which serve as substitutes. Specialized organizations, in contrast, hurt authoritarian regime resilience by making the regime more dependent on these particular organization and their specialties, and - by extension increasing its vulnerability to anti-state action by them (Huntington, 1995; Janowitz, 1988; De Bruin, 2018; Greitens, 2016). DSO proliferation accordingly addresses the most dangerous domestic threat to the regime in authoritarian countries - that posed by its own security apparatus - (Levitsky and Way, 2012; Smyth, Bianco and Chan, 2019; Harkness, 2018) while still enabling key policing tasks such as maintaining domestic order, bolstering the standing and legitimacy of the regime, and in extreme cases, extra judicial and mass killing of civilians, none of which requires particularly specialized skills (Koren and Mukherjee, Forthcoming). This accordingly suggests the following hypothesis:

H1: A greater number of DSOs in general is associated with a higher probability of authoritarian resilience

## DSO specialization in democracies

DSO redundancy, however, is not the only form of possible organizational proliferation. In particular, some DSOs can provide the regime with a specialized ability to, e.g., eliminate threats to its institutions, effectively respond to hostage crises, and crack down on violent riots and coup attempts in a fast and effective way (Bo hmelt and Clayton, 2018; Koren and Mukherjee, Forthcoming). For instance, DSOs with high capacity to gather and process information (e.g., the U.S. National Security Agency) improve the state's ability to identify specific domestic and foreign threats to its institutions and civilians, providing key information on the type, timing, and locations of an imminent attack or a mobilization effort, thus allowing the state to preempt it. Such intelligence gathering organizations may not provide full-scale policing or law enforcement capacities, but their ability to provide key information adds greatly to the domestic security repertoires of states.

Other DSOs may provide military-like law enforcement capacity, but in a specialized area or in a particular domain. For example, the U.S. Coast Guard is a paramilitary law enforcement $\mathrm{DSO}^{1}$ that specializes in providing military-like protection of the country's maritime domain, as well as in portal security, migration regulation, and other aspects of maritime defense readiness.

[^0]By narrowing its focus to the maritime aspects of U.S. domestic security, the Coast Guard is able to increase its efficiency in addressing security threats within its area of responsibility, and by extension, the state's ability to tackle such challenges. DSO specialization can therefore assist in ensuring that different security threats are caught, while increasing the depth with which it can potential threats are scanned and covered, improving each organization's ability to identify threats within relevant domains (Fingar, 2011). Some DSOs can also specialize in heavy-tactical assault capabilities, providing a set of specialized skills, but ones that can be deployed in a variety of situations. For instance, the Federal Bureau of Investigation's (FBI), a U.S. DSO, forms and trains Hostage Rescue Teams (HRT), which provide quick response capacities to any events involving hostages or other complex situations across the nation, while some local police departments have similar Special Warfare and Tactics (SWAT) teams to provide similar capabilities at the local level. Some paramilitary organizations (such as the Italian Carabinieri or the German Federal Police's GSG 9 unit) provide similar quick response and specialized capacity in other countries, including 'policing the military' functions, improving the ability of their respective founding states to prevent and response to particular specialized threats.

Specialization has important implications within the context of regime type and resilience. In contrast to authoritarian governments, where political power lies solely within a specific leader or party, the legitimacy and resilience of democracies originates in their political institutions and their role in maintaining political power and order (Przeworski, 2010; DeMeritt, 2016). In particular, democratic institutions are designed to ensure leader turnover, define and enforce the length of leader term in office, and legalize and maintain a system of checks and balances to prevent, at least officially, abuses of power and authoritarian takeover. Accordingly, the ability of democracies to persist relies primarily on their ability to preempt threats to their institutions, which
enable their very existence; and their citizens, which can hold the government directly accountable for failing to protect them, or (in extreme cases) exhibit "rally around the flag" effects in response to a successful attack, supporting a political contender who promises to take tough measures against the attackers in return for authoritarian powers (Siegle, Weinstein and Halperin, 2004; Svolik, 2008; Dixit, 2010; Valentino, Huth and Croco, 2010). In other words, the threats to democratic resilience are more diverse and cover a wider variety of aspects and possibilities than in autocracies. In the latter - as discussed above - state institutions are subjected to the power of the leader or ruling elite. As a result, a key threat to regime resilience in such states is poised by senior or junior members of their own security apparatus, who directly attack the leadership.

Effectively protecting institutions and citizens from both internal and external threats to ensure perpetuation of the democratic system necessitates identifying enemies and preempting potential attacks across a whole range of operational and geographical domains. Unlike in nondemocratic states, where (as discussed above) one of the most likely threats to the leadership is centered within a particular group - the officers and troops of the military or DSIs - DSO redundancy is unlikely to improve political resilience in democratic states, for at least two reasons. First, redundant organizations do not have the specialized capacities required to master different security domains. Moreover, due to their overlapping capacities and responsibilities, redundant DSOs might engage in competition over jurisdictional issues, adversely affecting their performance across a variety of areas, as research on competing governance institutions has illustrated (e.g., Low et al., 2003). Rather, protection across a variety of domains and potential threats is most effectively provided if, rather than relying on a set of competing organizations, the security apparatus will be composed of several organizations with specialized skills and relevant capacities.

Therefore, considering democracies' vulnerability to attacks against their institutions and citizens and the need to preempt a host of relevant threats across different domains, long-term resilience in democracies is best achieved through DSO specialization. Unlike in autocracies, a variety of different threats across a variety of security domains can cause harm to the democratic state's institutions and its citizens, thus hurting its resilience. Whereas institutions in democracies can effectively assist in addressing anti-leader sentiment by the opposition and its citizens, and subjecting the military to civilian authority (Huntington, 1995; Przeworski, 2010), optimal protection is provided by organizations that serve as complements, identifying and eliminating a wide diversity of potential threats (e.g., terrorism, hostage crises, violent riots, political extremism).

It is important to stress this does not mean that only democracies benefit from DSO specialization. Indeed, considering the advantages provided by specialization, any state democratic or not - would benefit from diversifying domestic security capacities across different domains. However, in giving the DSO in question, in effect, 'security monopoly' on a particular domain, specialization entails a greater reliance on this organization, making the regime more dependent on this particular DSO, and hence more vulnerable to potential anti-regime action by it (Powell 2012; De Bruin 2018). In democracies, institutional arrangements mitigate this risk, reducing the probability of a domestic organization mobilizing against the state (Powell and Thyne, 2011), thus allowing specialized groups to provide better protection to the state and improve its resilience over the long term. However, in authoritarian states, such dependence is often a greater strategic risk than the potential impact of, say, a terrorist attack on civilians, or even an attack on courts or other institutions, which are all subjected to the leader or ruling elite and its control. In this case, even if specialized DSOs provide better protection against a particular threat,
by increasing its power with respect to the leader (in providing it a security monopoly on a particular domain), one of these DSOs could actually hurt regime resilience in authoritarian states over the long term. Logic of substitution hence makes more sense in authoritarian states than logic of complementation, while the opposite is true for democracies. These theoretical points suggest the following hypothesis:

H2: A greater number of specialized DSOs is associated with a higher probability of democratic resilience

Theoretically, there are at least three ways that specialized DSOs can improve states' ability to better tackle a range of domestic threats. The first is via the provision of information. Successful attacks intended to challenge the democratic state's institutions and hurt its civilians more often occur where and when the state is unprepared; if the state has sufficient information on potential enemies, it could effectively target the specific individuals or groups posing a threat and prevent an attack (e.g., Dahl, 2011). Having a large number of DSOs that specialize in information collection within particular domains helps to increase the probability relevant threats will be identified early on, allowing the state to target the specific culpable groups or individuals effectively. Moreover, the ability to identify only culpable individuals reduces the need to use excessive violence in addressing this threat, which - especially in democracies - can backfire, causing civilian resentment, disillusionment with the regime, and authoritarian backsliding (Valentino, Huth and Croco, 2010). Accordingly, one may expect that the number of specialized intelligence-gathering DSOs should increase, on average, democratic resilience, which suggests the following:

H3: A greater number of intelligence-gathering DSOs is associated with a higher probability of democratic resilience

A related capacity that could - among other impacts - help in providing intelligence relates to the ability of DSOs to operate in civilian clothes ("plainclothes"). For instance, operatives of such organizations might be more effective at penetrating enemy cells or recruiting civilian agents. Plainclothes operatives may also be more successful in collecting local information, for instance because they appear less threatening (and possibly even less professional) than officers in uniform (Maduro, 1984). Second, plainclothes operatives could also improve the state's ability to enforce, making successful arrests in particular situations where armed officers might find it hard to get close to the target (e.g., the role of the U.S. Marshals Service in armed standoffs). It is important to emphasize that plainclothes organizations are different than intelligence-gathering DSOs. Although the latter also often operate in civilian clothes, they are formed specifically to collect and process information on a large scale, without any capacity to enforce policies or (usually) to make arrests, whereas some plainclothes DSOs have ability both to collect information and enforce policies. Nevertheless, like intelligence gathering DSOs, general plainclothes DSOs provide a set of specialized capacities to address specific threats to political institutions and civilians, which in line with the logic developed above regarding the importance of specialized DSOs to improving democratic state resilience - suggests the following:

H4: A greater number of plainclothes DSOs is associated with a higher probability of democratic resilience

Finally, DSO specialization can improve a democracy's ability to tackle threats to its institutions and citizens is by increasing its coercive capacity, which improves its ability to obviate and neutralize identified threats. The most effective organizations that provide this type of capacities are parallel(para)-militaries, which are "militarized security units, which are trained and organized under the central government to support or replace the regular military" (Bo hmelt and

Clayton, 2018, 198) that specialize in complicated enforcement and security provision within particular domains. These units operate where the military cannot or will not (e.g., due to jurisdictional limits), or specialize in particular tasks (e.g., maritime, border service). In authoritarian states, paramilitary DSOs with such capacities can be destabilizing if the regime is forced to rely on these DSOs for particular tasks (or special policing), giving the paramilitary DSO the opportunity can use its power and harm authoritarian regime resilience by mobilizing against the leader or elite (as happened, e.g., in Haiti in 2004). However, in democracies, where separation of powers, in effect, places checks on these units, DSOs with a specialized set of parallel(para)militarized skills within a particular domain (e.g., cost guards, border services) provide an overwhelming advantage over challengers in these respective areas, increasing the regime's resilience against a variety of 'standard' and emerging threats, from nascent rebel groups and enemy agents, through transnational terrorists, to domestic extremists. This suggests the following hypothesis:

H5: A higher number of paramilitary DSOs is associated with a higher probability of democratic resilience

## Empirical Analysis

## Data, variables, methods

My hypotheses associate DSO traits with variation in authoritarian and democratic resilience within countries. Accordingly, the dependent variable should capture variations in regime type from autocracies to democracies and vice versa - as these are reflected in the number and types of DSOs within each state. To create this variable, Authoritarianism, I use Geddes, Wright and Frantz's (2014) comprehensive and updated Autocratic Breakdown and Regime Transitions
dataset to identify the all the countries and periods within my sample where the state was identified as having a nondemocratic regime between 1989 and $2007 .{ }^{2}$ Accordingly, if Authoritarianism $=1$, then a state is or remains authoritarian; if Authoritarianism $=0$ then a state is or remains democratic. My unit of analysis is hence the country-year. Of the 3,589 country-years in my 1989-2007 global sample, 1,298 were identified as authoritarian by Geddes, Wright and Frantz (2014).

To code DSOD data, I collected, with the help of a research assistant, information on all formal domestic security organizations between 1989 and 2007 using primary and secondary sources. ${ }^{3}$ In order to enter the dataset, each security organization had to fulfill the four requirements listed at the beginning of the previous section. Based on these criteria, I have identified a total of 394 DSOs in 194 countries across the globe within the 1989-2007 period. Accordingly, to test hypotheses H1, I created a variable that counts the total number of all DSOs recorded within a given state and aggregated it to the country-year level. The resulting $N$. organizations variable is hence a count indicator with a mean 2.06 and a range of $1 \stackrel{\wedge}{\curvearrowleft} 11$.

Next, for each of these DSOs identified, I then proceeded to code a set of characteristics necessary for answering the questions poised in this study. Note that these characteristics are not

[^1]mutually exclusive: each DSO can get a score greater than zero on several or all these indicators. In line with my theory and the logics derived in the previous section, I specially focused on coding three distinct features of each DSO - namely, intelligence-gathering, plainclothes, and paramilitary capacities - to test Hypotheses H2-H5. ${ }^{4}$

1. Intelligence gathering: some DSOs are designed to heavily, or exclusively, emphasize intelligence gathering (e.g., the U.S. National Security Agency). Intelligence gathering DSOs are hence mostly concerned with collecting, disseminating, and providing information to their principal. To define if a DSO is a primarily intelligence gathering organization, I looked at whether it has the ability to rely on a wide variety of techniques, including signal intelligence (e.g., email hacking), human intelligence (e.g., recruiting and deploying human agents), and other approaches. To ensure I did not capture subunits of other security organizations with some intelligence collection capacity (e.g., Unit 8200 of the Israeli Defense Force) but rather truly independent intelligence-gathering DSOs, the organization had to report to a separate senior official at the state/province or national/federal level (e.g., the Israeli Shin Bet).
2. Plainclothes: some DSOs operate primarily in civilian clothing, allowing them to less conspicuously operate among the civilian population, conduct investigations, etc. Such organizations include, for instance, the Federal Bureau of Investigation, Israeli Shabac security service (Shin Bet), etc. Note that although many DSOs might operate in civilian

[^2]clothing in some contexts (e.g., police detectives), they still wear uniform as part of their official designation, which separates them from "true" plainclothes DSOs.
3. Paramilitary: Paramilitaries are official, regular security agents that function as "militarized police units, domiciled in part in barracks, equipped with light military weapons and vehicles, and organized under the central government" (Janowitz, 1988, 28). A DSO is defined as a paramilitary if all troops go through military-equivalent training and are supplied with military-grade weapons and equipment. Examples include militarized gendarmeries (e.g., the Italian Carabinieri) and specialized military-like organizations, which are not under the command of the military or the Department/Ministry of Defense and which specialize in defensive activities (e.g., the U.S. Coast Guard, the Russian Border Guards). ${ }^{5}$ Note that this definition differs from that used in some past studies (e.g., Ahram 2014; Aliyev, 2016) in that it emphasizes militarized capacities and structures rather than informal activities and security buildups - all the DSOs coded as paramilitary are official state organizations that fulfill the four criteria mentioned in the previous section.

Using the information on these three traits, I created three variables to test Hypotheses H2-H5 by counting the total number of each organization type within a given state and aggregating each indicator to the country-year levels. The resulting variables - Intelligence gathering, Plainclothes, and Paramilitary - are hence count indicators of each of the respective specialized DSO types, with means of $0.61,0.30$, and 0.38 , and ranges of $0 \Leftrightarrow 7,0 \Leftrightarrow 4$, and $0 \Leftrightarrow 7$, respectively.

[^3]Descriptively, of the 394 DSOs coded in the data, most organizations did have any of the three specializations of interest, i.e., intelligence gathering, plainclothes, and/or paramilitaries. Interestingly, however, nearly $30 \%$ of the DSOs in the sample have intelligence gathering capacity, suggesting information collection is a major reason states establish a formal DSO, more so than say - developing strong coercive capacities, considering that only $18 \%$ of the DSOs in the sample have paramilitary specialization. More specifically, in line with my theoretical claims, the data suggest that in democracies, nearly $70 \%$ of DSOs have at least one specialization (of the three discussed above) and only about $30 \%$ of the DSOs are not specialized. In contrast, nearly half of the DSOs in authoritarian country-years have no specialization.

In addition to my DSO indicators, I included several variables to account for potential theoretical confounders. To avoid any biases caused by the inclusion of a large number of controls within a single model (Schrodt, 2014), I add only the most theoretically salient ones, while reporting a more extensive control model in the Supplemental Appendix to illustrate my results are robust to this decision. Within the models reported below, I first include 'standard' controls for population, GDP per capita (both from Gleditsch, 2002, updated to 2011), and - considering that authoritarian reversion might be more likely in states that gradually reduce political openness - the Polity2 indicator (from the Polity IV project by Marshall, Jaggers and Gurr, 2013). These controls are important in ensuring that any findings regarding DSO specialization are not due to key alternative explanations, such as a state's higher development levels or greater population, which allow it to construct more effective DSOs.

Additionally, recall that past research highlights the role of semi-official and informal progovernment militias (PGMs) in providing 'parallel' capacity to formal state organization (Carey, Mitchell and Lowe, 2013; Aliyev, 2016). For instance, where the state does not have capacity to
obtain local information, it may turn to militias, which often have informational advantages within specific areas (Jentzsch, Kalyvas and Schubiger, 2015; Carey, Colaresi and Mitchell, 2016). Such groups can also be deployed to conduct violent activities that state forces cannot - or will not perform, such as using violence in areas with high civilian population densities, or against specific enemies of the state (Mitchell, Carey and Butler, 2014; Ahram, 2014). To account for these possibilities and their impact on democratic and authoritarian resilience, I included two dichotomous indicators denoting whether (v) an informal PGM and (vi) a semi-official PGM were present in a given country during a given year based on PGMD data (Carey, Mitchell and Lowe, 2013). ${ }^{6}$

To the full specification below, I also added controls for military expenditure (World Bank, 2019, taken from the World Development Indicators, or WDI) - to account for the possibility that countries with large militaries are more effective at tackling particular challenges; a new or an ongoing civil war (defined as a conflict with at least 25 combatant deaths) during a given year, based on data from the UCDP/PRIO Armed Conflict Dataset version 19.1 (Gleditsch et al. ,2002; Pettersson, Ho $\ddot{g} b l a d h ~ a n d ~ O \ddot{b} e r g, ~ 2019), ~ t o ~ a c c o u n t ~ f o r ~ t h e ~ p o s s i b i l i t y ~ t h a t ~ c i v i l ~ w a r ~ i n d u c e s ~$ regimes to become more authoritarian; and ethnic fractionalization (Alesina and Ferrara, 2005), to account for the possibility that ethnically fragmented states are more likely to contribute to a state's regime type. Summary statistics for all variables (including those used in my robustness and GMM models) are reported in Table A1-A2, Supplemental Appendix.

For testing Hypotheses H1-H5, I relied on three analysis stages. In the first stage, I report models that include my main variables of interest, gradually adding the controls mentioned above.

[^4]The second stage of analysis, reported in the Supplemental Appendix, estimates a large number of sensitivity analyses (discussed below) accounting for a variety of additional confounders, modeling, and sample choices to illustrate the viability of the first stage's results. Because my dependent variable is binary (autocracy/not autocracy), these two stages employ logistic regression, with fixed effects by year to account for trends that are constant over time and countryclustered standard errors, considering that the data for some variables are duplicated over time. In the third stage - discussed in greater detail below - I test whether my variables of interests have a causal effect by estimating and reporting a set of dynamic generalized method of moments (GMM) models designed to account for endogeneity and serial correlation, using a subsample of specifically-and-carefully selected countries where I was able to code variation on both authoritarianism and the number and traits of different DSOs over time.

## Crossnational Analysis

Table 1 provides strong evidence in support of my expectations. In support of Hypothesis H1, the coefficient estimate for $N$. organizations is positive and significant in the baseline (to $p<.1$ ) and full (to $p<.01$ ) models, suggesting increases in the total number of DSOs is positively associated with a higher likelihood of authoritarian resilience. In support of Hypotheses H2, an increase in the number of specialized DSOs in a given states is associated with a reduction in its likelihood of being authoritarian, i.e., with a higher likelihood of democratic resilience. More specifically, in support of Hypothesis H3, a greater number of specialized intelligence-gathering DSOs is associated with a reduced likelihood of authoritarian resilience across all models (to at least $p<$ .05). In contrast, the coefficient estimates for Plainclothes are not robust in terms of sign across the models and show statistical significance, yielding no confirmation for Hypothesis H4. Finally,
a higher number of DSOs with specialized paramilitary capacities within a given state is associated with a reduction in the likelihood of authoritarian resilience (to $p<.1$ ), thus confirming Hypothesis H5. While I do not discuss the effects of other variables in my models in the interest of space, it is important to emphasize that the identified effects of my DSO indicators are robust to state capacity and economic development levels, as well as to the role of non-formal organizations, ongoing conflict, and military-centric features, all of which are controlled for in the medium and full specifications.

To evaluate how substantial are the impacts identified in Table 1, I plot the change in the predicted probabilities of Authoritarianism $=1$ in my sample across the range of each of the indicators with robust statistically-significant estimate coefficient $-N$. organizations, Intelligence gathering, and Paramilitary - holding all other variables at their means (for continuous variables) or modes (for dichotomous variables). To this end, Figure 2 first reports the change in the probability that Authoritarianism=1 (i.e., authoritarian resilience) when the number of DSOs in the sample is changed from its minimum $(=1)$ to maximum $(=11)$ values, which yields a predicted increase in the probability of authoritarian resilience of approximately $60 \%$. Moving on to Intelligence gathering (bottom left), a change from minimum $(=0)$ to maximum $(=7)$ in the number of organizations yields a predicted decrease (i.e., a higher probability of democratic resilience) of approximately $50 \%$, on average. Similarly, a change from minimum (=0) to maximum (=7) in the Paramilitary variable (bottom right) yields a nearly identical decrease in the predicted probability of authoritarian resilience of approximately $50 \%$. Overall, then, Figure 2 provides additional confirmation for Hypotheses H1, H2, H3, and H5, and my theoretical argument broadly.

Table 1: Determinants of Authoritarian Resilience, 1989-2007

|  | Baseline <br> (1) | Medium <br> (2) | Full <br> (3) |
| :---: | :---: | :---: | :---: |
| Intelligence gathering | $\begin{gathered} -0.295^{* * *} \\ (0.060) \end{gathered}$ | $\begin{gathered} -0.415^{* *} \\ (0.183) \end{gathered}$ | $\begin{gathered} -0.738^{* * *} \\ (0.217) \end{gathered}$ |
| Plainclothes | $\begin{aligned} & -0.033 \\ & (0.111) \end{aligned}$ | $\begin{gathered} 0.133 \\ (0.328) \end{gathered}$ | $\begin{aligned} & -0.294 \\ & (0.395) \end{aligned}$ |
| Paramilitary | $\begin{gathered} -0.142^{*} \\ (0.077) \end{gathered}$ | $\begin{gathered} -0.723^{* * *} \\ (0.243) \end{gathered}$ | $\begin{gathered} -0.725^{* * *} \\ (0.270) \end{gathered}$ |
| N. organizations | $\begin{aligned} & 0.110^{*} \\ & (0.059) \end{aligned}$ | $\begin{gathered} 0.165 \\ (0.164) \end{gathered}$ | $\begin{gathered} 0.657^{* * *} \\ (0.210) \end{gathered}$ |
| Authoritarianism (lag) | - | $\begin{gathered} 6.533^{* * *} \\ (0.320) \end{gathered}$ | $\begin{gathered} 6.629^{* * *} \\ (0.375) \end{gathered}$ |
| Informal PGM | - | $\begin{gathered} 0.067 \\ (0.328) \end{gathered}$ | $\begin{gathered} 0.359 \\ (0.398) \end{gathered}$ |
| Semiofficial PGM | - | $\begin{gathered} 0.011 \\ (0.348) \end{gathered}$ | $\begin{gathered} 0.243 \\ (0.425) \end{gathered}$ |
| Population ${ }^{1}$ | - | $\begin{gathered} 0.528^{* * *} \\ (0.109) \end{gathered}$ | $\begin{gathered} 0.181 \\ (0.139) \end{gathered}$ |
| Polity 2 | - | $\begin{gathered} -0.284^{* * *} \\ (0.023) \end{gathered}$ | $\begin{gathered} -0.321^{* * *} \\ (0.030) \end{gathered}$ |
| $G D P P C^{1}$ | - | $\begin{aligned} & -0.104 \\ & (0.112) \end{aligned}$ | $\begin{aligned} & -0.190 \\ & (0.135) \end{aligned}$ |
| Civil war | - | - | $\begin{gathered} 0.208 \\ (0.419) \end{gathered}$ |
| Military exp. ${ }^{1}$ | - | - | $\begin{aligned} & -0.245 \\ & (0.299) \end{aligned}$ |
| Ethic frac. | - | - | $\begin{aligned} & -0.851 \\ & (0.637) \end{aligned}$ |
| Constant | $\begin{gathered} -1.154^{* * *} \\ (0.199) \end{gathered}$ | $\begin{gathered} -3.285^{* *} \\ (1.377) \end{gathered}$ | $\begin{gathered} 0.591 \\ (1.758) \end{gathered}$ |
| Observations | 3,490 | 2,890 | 2,475 |
| Log Likelihood | -2,104.219 | -297.098 | -224.797 |
| Akaike Inf. Crit. | 4,256.438 | 654.195 | 515.595 |

${ }^{*} \mathrm{p}<0.1 ;{ }^{* *} \mathrm{p}<0.05 ;{ }^{* * *} \mathrm{p}<0.01$.
Variable coefficients are reported with standard errors clustered by country in parentheses. Fixed effects by year are included in every model although not reported.
${ }^{1}$ Natural $\log$


Figure 2: Change in predicted probability of authoritarianism

## Robustness models

To assess the robustness of my findings to alternative confounders, sample, and modeling choices, I estimate a large number of additional models corresponding to the full specification in Table 1. These models are reported in Tables A3-A4, Supplemental Appendix to save space. I begin by estimating 'reduced form' models to ensure the results are not driven by the inclusion of all three DSO traits variables alongside the DSO count indicator within the same model in Table A3. To this end, I estimate the full specification from Table 1 three times, each time adding only one of the three specialized DSO variables (Intelligence gathering, Plainclothes, and Paramilitary) to the model. The sign and statistical significance of the specialized DSO coefficients hold across these three models, providing additional support for my theoretical argument.

In Table A4 I then estimate six additional sensitivity models. I begin by illustrating that my findings regarding the effect of specialized DSOs hold when authoritarian reversion - that is, when a country changes from a democracy to an autocracy - specifically, is concerned. To this end, I retain only the first year where a state is recorded as Authoritarianism=1 in addition to all years where it is recorded as Authoritarianism $=0$ to provide a more nuanced evaluation of the role of specialized DSOs in ensuring democratic resilience. Next, recall that my full specification included only key controls to avoid for potential inferential biases. To this end, the ensuing model in Table A4 adds to my full specification indicators accounting for percent of the country's population that resides in urban areas, lingual fractionalization, and number of military troops, to illustrate my findings are not driven by the omission of these additional relevant controls. The third model in Table A4 then replaces the militia presence variables with militia activity indicators, which - by identifying only incidents where militias were actually reported to act - might provide a more accurate picture of the impact of militias on authoritarian resilience.

Next, recall that my DSO data includes all organizations not only at the national or province/state level (for federative countries), but also DSOs that operate locally. It is possible, however, that local DSOs might be less likely to serve as either substitutes or complements to other DSOs, making them less relevant with respect to authoritarian or democratic resilience (it is also possibly missingness is more likely in local DSOs). To ensure that my findings are not driven by this possibility, the fourth model in Table A4 replicates my full specification, omitting all local organizations from my four DSO indicators, thus ensuring my findings are not driven by the inclusion of local security organizations in my sample. The fifth model in Table A4 then evaluates that my findings are not driven by coding or other decisions related to how my DSO data were constructed. To this end, recall that, similarly to my DSO data, the SSF dataset (De Bruin, 2019) focuses on domestic security organizations, although it uses different criteria and coding standards. While the SSF does not code the same traits measured in my DSO data (especially with respect to organizations that are primarily intelligence gathering), it does include information on whether or not an organization was 'heavily armed,' which overlaps with DSOs coded in my Paramilitary indicator (the correlation between the two variables: $r=0.45$ ). In Table A4 I therefore also estimate a model where my Paramilitary and $N$. organizations indicators are replaced with SSF-based variables measuring (i) the total number of heavily armed groups and (ii) the total number of all domestic security organizations identified by tge SSF in a given country-year, respectively (correlation with my DSO-based $N$. organizations: $r=0.48$ ), to illustrate that my coefficients of interest maintain their sign and statistical significance even across two different datasets.

Finally, there is the possibility that my results are driven by country-specific features other than country-level heterogeneities (which are accounted for using country-clustered standard errors). To this end, the final model in Table A4 accounts for this concern by estimating a
hierarchical model with random effects by country. Crucially, my findings regarding intelligence gathering DSOs and number of DSOs hold across all relevant models and specifications in Tables A3-A4, while the result for paramilitaries hold across all robustness models excluding the random effects specification, thus providing additional confirmation of my theory and findings.

## Accounting for endogeneity and serial correlation

Finally, as mentioned above, authoritarianism in my data may exhibit serial correlations over time and/or endogeneity with my DSO indicators due to endogenous policy responses, omitted variable effects, or persistent policies resulting from regime-specific issues (e.g., authoritarian or democratic states form different DSO types, which in turn contributes to their resilience). To ensure that my models capture the effect of each DSO indicator on the resilience of each regime type, specifically (i.e., isolate the causal arrow flowing from my DSO indicators to regime type, rather than the other way around), in the third stage I employ a series of robust system generalized method of moments (GMM) dynamic models, which deploy a set of "internal" instruments that rely on lagged values of the instrumented - i.e., the dependent - variable (Blundell and Bond, 1998), to effectively identify the causal effects of my independent variables on my dependent variable. The systems GMM model is specified as a system of (per period) equations, where the instruments applicable to each equation differ because additional lagged values of the instruments exist in later time periods. For these instruments, I include two-to-five-period lags of the DV, capturing variations in this variable at time $t$ based on changes from past periods. Since I am considering panel models with individual effects, unit fixed effects are canceled-out, providing a straightforward instrumental variable estimator. To account for trends that are constant over time, each GMM models reported below also includes the time trend.

Importantly, to identify causal effects within each unit (i.e., country), such GMM models require that all dependent and independent variables will vary over time. This necessitated not only removing time-constant controls from the models, but also creating a set of my DSO indicators that is time-varying. Due to the time intensiveness of coding different DSO features over time and considering limitations in available information on the formation and capacity of each organization - I was forced to focus my analysis on a subsample of states. Accordingly, states included in the time-varying subset of my data were selected in two rounds, using the guidelines of the "typical" case selection advocated by Seawright and Gerring (2008, 299), where each case "may also be considered a representative case" and where "the puzzle of interest to the researcher lies within that case." This required that in the first stage, states selected should exhibit similarities in terms of key confounders, such as wealth, development levels, and population size (within one order of magnitude). Of the subset of these comparable states, I then needed to further ensure - as per the guidelines mentioned - that in addition to having sufficient information available on variation in each DSO and its traits over time, most of the states included in this subset will exhibit variations in regime type over time, i.e., from autocracy to democracy and vice versa, as to ensure my GMM models are able to exploit this temporal variation for the purpose of instrumentalization and effective identification.

Using these guidelines, I identified several states that with close similarities on the aforementioned relevant dimensions, which also exhibited sufficient variability in regime type and the number of specialized and unspecialized DSOs over time: Mexico, Brazil, USSR/Russia, Kenya, South Africa, Turkey, India, Pakistan, and the Philippines. To further ensure that I maximized the degree of variability in my dependent and independent variables that is captured, and considering sufficient informational availability on most controls, I extended the period of
analysis in this subsample to cover nearly four decades (1980-2018). Due to the length of this extended period, I relied on population and GDP per capita controls (in 2010 constant dollars) from the World Development Indicators (World Bank, 2019), considering data by Gleditsch (2002) only go up to 2011, while relevant information on said controls was available for nearly all country-years in this subsample. Importantly, the ratio of Authoritarianism $=0$ to $=1$ in this subset is very close to the ratio in my main sample ( $69 \%$ to $31 \%$, respectively), thus helping to ensure that my results from this stage of analysis are viable when compared to the global cross-national models estimated in stages one and two.

The results from three GMM models corresponding to baseline, medium, and full specifications, are reported in Table 2. In estimating these three specifications, I find not only that the sign and statistical significance of my DSO coefficients hold (to at least the $p<.1$ level), but also that Plainclothes's coefficient is now negative and statistically significant (to at least the $p<$ .1 level), which provides some confirmation for Hypothesis H4. That the results hold - or even become more pronounced (with respect to Hypothesis H 4 ) - means that my findings are not the result of either endogeneity between my dependent and independent variables or serial correlations in authoritarianism/democracy regimes over time, and are indeed specific to the DSOs and their relevant traits, even though the reliance on a linear model for binary and count DVs suggests a greater risk of falsely rejecting my hypotheses (a type II error). Sargan tests are not statistically significant in any of the models, suggesting that they are effectively, i.e., not over, specified. Thus, these GMM specifications offer strong support to the argument that DSOs noticeably affect authoritarian and democratic resilience, confirming Hypotheses H1-H5 by showing that endogeneity and serial correlations are not driving the statistical results.

Table 2: GMM Models of Authoritarianism

|  | Baseline <br> (4) | Medium (5) | Full <br> (6) |
| :---: | :---: | :---: | :---: |
| Intelligence gathering | $\begin{aligned} & -0.104 \\ & (0.110) \end{aligned}$ | $\begin{gathered} -0.212^{*} \\ (0.109) \end{gathered}$ | $\begin{gathered} -1.658^{* *} \\ (0.783) \end{gathered}$ |
| Plainclothes | $\begin{aligned} & -0.066 \\ & (0.077) \end{aligned}$ | $\begin{gathered} -0.096^{* * *} \\ (0.034) \end{gathered}$ | $\begin{gathered} -2.011^{*} \\ (1.051) \end{gathered}$ |
| Paramilitary | $\begin{gathered} -0.095^{* * *} \\ (0.018) \end{gathered}$ | $\begin{gathered} -0.077^{* * *} \\ (0.014) \end{gathered}$ | $\begin{gathered} -1.104^{*} \\ (0.587) \end{gathered}$ |
| N. organizations | $\begin{gathered} 0.085 \\ (0.056) \end{gathered}$ | $\begin{aligned} & 0.135^{* *} \\ & (0.060) \end{aligned}$ | $\begin{aligned} & 1.116^{* *} \\ & (0.549) \end{aligned}$ |
| Population ${ }^{1}$ | $\begin{aligned} & 0.030^{* *} \\ & (0.015) \end{aligned}$ | $\begin{aligned} & 0.026^{* *} \\ & (0.012) \end{aligned}$ | $\begin{aligned} & 1.439^{*} \\ & (0.856) \end{aligned}$ |
| Polity 2 | - | $\begin{gathered} -0.042^{* * *} \\ (0.012) \end{gathered}$ | $\begin{gathered} 0.019 \\ (0.051) \end{gathered}$ |
| $G D P P C^{1}$ | - | - | $\begin{gathered} -0.996^{*} \\ (0.603) \end{gathered}$ |
| Informal PGM | - | - | $\begin{aligned} & -0.895 \\ & (0.708) \end{aligned}$ |
| Semiofficial PGM | - | - | $\begin{aligned} & 3.329^{*} \\ & (1.870) \end{aligned}$ |
| Observations | 351 | 351 | 232 |
| Sargan test | 6.620 | 3.739 | -6.709e-14 |
| AR(1) | -1.299 | -2.115** | -0.918 |

Variable coefficients are reported with two-step/robust standard errors in parentheses. All models include individual/country effects and a control for time trend, which is not reported here.
${ }^{1}$ Natural log

## Conclusion

My findings highlight fruitful directions of future research. In identifying pathways by which domestic security organizations can improve democratic resilience, and not only increase the ability of autocratic leaders and elites to stay in power, this study first draw linkages between research on authoritarian stability and "coup-proofing," which highlighted the role of formal and
non-formal (semi-official and informal) organizations broadly (e.g., Belkin and Schofer, 2003; Powell, 2012; De Bruin, 2018; Carey, Colaresi and Mitchell, 2016) as potential substitutes for each other; and democratic threat-prevention efforts, where - I argued here - different DSOs serve to complement each other's capacities by specializing in particular threats and security domains. Moving forward, future research on security agents would benefit from better integrating the different roles such organizations play across different types of regimes, identifying what other capacities are more or less likely to exist and persist. Building on ongoing work in these areas (e.g., Bo-hmelt and Clayton, 2018; Koren and Mukherjee, Forthcoming), a related research trajectory is to examine in greater detail how, when, and where, non-formal organizations such as militias intersect with and inform the work of formal DSOs, and in what security contexts.

Another research contribution of this article is in providing another illustration of the important role agency plays in shaping broad political relations, which until recently has generally been considered as being decided solely by leaders and shaped only by broad political and socioeconomic factors. Here, my findings that differences in formal security agent types shape political regime stability and variability within and across states relates to past work that highlights the importance of agency in explaining a wide range of political phenomena (Chenoweth and Ulfelder, 2017; Carey, Colaresi and Mitchell, 2016; Aliyev, 2016; Cohen and Norda ${ }^{\circ}$, 2015; Harkness, 2018), and in particular research that examines how formal security organization arrangements are a function of authoritarian leaders' threat perceptions (Greitens, 2016; Scoggins, 2020). My theory and findings add theoretically by extending this logic to democratic states and the particular threats they face. Empirically, I not only illustrate the viability of such relationships across the entire globe, but also parcel out different relationships as they vary across organization type and specialty. With the role of agency and security repertoires assuming a first-row seat across
these different agendas, my findings suggest future research would benefit from integrating the role of formal organizations more thoroughly - in addition to semi-official and informal groups when exploring political questions across different countries and regimes.

Finally, in highlighting the role of different formal security organizations in increasing the resilience of both authoritarian and democratic regimes, this study identifies a new set of factors that explain regime types to those identified by past research (e.g., Svolik, 2008; Przeworski, 2010; Wright and Escriba`-Folch, 2012; Bueno De Mesquita et al., 2005; Smyth, Bianco and Chan, 2019). In line with the work of scholars such as Greitens (2016) and Harkness (2018), the present study adds to this work, pointing future research to the important role interactions between leaders and agents play in explaining authoritarianism, democratization, and political stability.

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[^0]:    ${ }^{1}$ The Coast Guard is considered a DSO rather than part of the military because it is under the control of the Department of Homeland Security, not the Department of Defense, which oversees the five of U.S.'s military branches: the Army, Navy, Marine Corps, Air Force, and Space Force.

[^1]:    ${ }^{2}$ The period for which information on all independent variables was available.
    ${ }^{3}$ A partial list of the key sources used in coding include the Country Study guide series by the Federal Research Division, Library of Congress; the country profile reported in the CIA's World Factbook; The Encyclopedia of Law Enforcement by Sullivan and Rosen (2004); The World Police Encyclopedia by Das and Palmiotto (2006); and data from Military Structure, Civil Disobedience, and Military Violence by Koren (2014). Additional resources were used on a case-by-case basis.

[^2]:    ${ }^{4}$ In the appendix I list additional traits coded in the DSO data, which are used in some of the robustness models, under the Additional Data Discussion section.

[^3]:    ${ }^{5}$ The U.S. National Guard is not defined as a paramilitary because it is an integral part of the military's reserve component and is under the ultimate supervision of the Department of Defense.

[^4]:    ${ }^{6}$ The PGMD includes information only up to 2007, limiting my analysis the 1989-2007 period.

