

2019

## More Guns, Less Butter, and Officers at the Table: Understanding the Nexus between the Military's Integration into Politics and Resource Allocation in Democracies and Non-Democracies

Salah Ben Hammou  
*University of Central Florida*

 Part of the [Political Science Commons](#)

Find similar works at: <https://stars.library.ucf.edu/etd>

University of Central Florida Libraries <http://library.ucf.edu>

This Masters Thesis (Open Access) is brought to you for free and open access by STARS. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of STARS. For more information, please contact [STARS@ucf.edu](mailto:STARS@ucf.edu).

---

### STARS Citation

Ben Hammou, Salah, "More Guns, Less Butter, and Officers at the Table: Understanding the Nexus between the Military's Integration into Politics and Resource Allocation in Democracies and Non-Democracies" (2019). *Electronic Theses and Dissertations*. 6759.  
<https://stars.library.ucf.edu/etd/6759>



**MORE GUNS, LESS BUTTER, AND OFFICERS AT THE TABLE:  
UNDERSTANDING THE NEXUS BETWEEN THE MILITARY'S INTEGRATION INTO  
POLITICS AND RESOURCE ALLOCATIONS IN DEMOCRACIES AND NON-  
DEMOCRACIES**

by

**SALAH BENHAMMOU**  
B.A. University of Central Florida, 2018

A thesis submitted in partial fulfillment of the requirements  
for the degree of Master of Arts  
in the School of Politics, Security, and International Affairs  
in the College of Sciences  
at the University of Central Florida  
Orlando, Florida

Fall Term  
2019

© 2019 Salah Benhammou

## **ABSTRACT**

The civilianization of government is often seen as a necessary prerequisite for successful democratization and healthy civil-military relations. This thesis explores the impact of integrating the military into political decision-making on the distribution of “guns” and “butter” – military spending and social spending - across dictatorships and democracies. Whereas a general consensus suggests that autocracies allocate greater goods to the military and fewer goods to the general public relative to democracies, an understudied variable is the military’s integration into politics in both democracies and autocracies. Given that military elites have greater incentives relative to civilian elites to prioritize military spending over social spending, I expect that integrating officers into politics should yield greater military outlays and fewer social outlays relative to more civilianized regimes, democratic or otherwise.

Drawing on a number of theories concerning contentious civil-military relations, I frame this process of integration and its subsequent consequence as part of a broader means to ameliorate commitment issues between leaders and the armed forces. Specifically, I view power-sharing with military elites as a potential tool democrats and dictators may use to ensure the loyalty of the armed forces and mitigate the threat of defection or a coup d’etat. I test my arguments using data on the proportion of national cabinet positions held by military officers across 138 countries between 1964-2008. Offering some support for my expectations, this thesis highlights the necessity of fine-tuned data to explore civil-military processes and reasserts that the military may influence politics across multiple regime settings and outside of overtly ruling the country..

## TABLE OF CONTENTS

LIST OF TABLES .....	iv
LIST OF FIGURES .....	v
CHAPTER ONE: INTRODUCTION .....	1
1. Guns and Butter, and The Military’s Role in Politics.....	1
CHAPTER TWO: LITERATURE REVIEW .....	7
1. Understanding the Impact of Political Decision-Making on Scarce Resource Allocation .....	7
2. Understanding The Military’s Preferences .....	10
3. Democrats, Dictators, and Bringing Officers In .....	14
CHAPTER THREE: THEORITICAL EXPECTATIONS AND HYPOTHESES .....	20
1. Integration: Privileges, Power-Sharing, and Preferences.....	20
2. Integration into Autocracies.....	21
3. Integration into Democracies .....	26
CHAPTER FOUR: DATA AND METHODS.....	30
1. Research Methodology – Choice of Statistical Model.....	30
2. Dependent Variables – Military Outlays and Social Spending.....	31
3. Explanatory Variables.....	33
4. Control Variables – Military Spending.....	37
5. Control Variables – Social Spending/Outcomes.....	41
CHAPTER FIVE: RESULTS AND ANALYSIS.....	46
1. Military Spending Models .....	46
2. Social Spending/Conditions Models and Analysis .....	52
CHAPTER SIX: CONCLUDING REMARKS AND IMPLICATIONS .....	62
1. Summarization and Implications .....	62
LIST OF REFERENCES .....	64

## LIST OF TABLES

Table 1: Descriptive Statistics: Military Spending .....	40
Table 2: Descriptive Statistics: Social Spending/Outcomes .....	44
Table 3: Military Integration and Military Spending as Share of GDP .....	47
Table 4: Military Integration and Infant Mortality Rates: (10 Year Lagged Models) .....	53
Table 5: Military Integration and Infant Mortality Rates: (5 Year Lagged Models) .....	54
Table 6: Military Integration and Education Spending as Share of GDP .....	58

## **LIST OF FIGURES**

Figure 1: Marginal Impact of Military in Politics on Military Spending as Share of GDP .....	51
Figure 2: Marginal Impact of Military in Politics on Infant Mortality Rates, Per 1,000 Births .....	57
Figure 3: Marginal Impact of Military in Politics on Education Spending as Share of GDP .....	60

## **CHAPTER ONE: INTRODUCTION**

### **1. Guns and Butter, and The Military's Role in Politics.**

What explains variations in trends of “guns” and “butter”<sup>1</sup> across various forms of regime types, and how might the military impose its preferences regarding how these resources are allocated? I argue that a potentially powerful avenue for the military to impose its preferences is through its integration into politics. The civilianization of government is often considered a strong prerequisite for democratic transition and healthy civil-military relations (e.g., Huntington, 1957; Haggard and Kaufman, 1995). Conversely, including military in government is often associated with a number of processes relating to repression (Davenport, 2007), foreign policy belligerence(Weeks, 2012), terrorism (Bove et. al, 2019), and coup propensity (Geddes, Wright, Frantz, 2014). Much less is as extensively known about the interaction between military in politics and patterns of government spending, particularly to “guns” (military spending) and “butter” (social spending programs). Whereas a number of studies focus on military spending and military regimes (e.g., Kim, Kim, Lee, 2013; Bove and Brauner, 2011, 2016), these instances focus solely on the military’s overt control of government and speak less to broader instances of military involvement in politics. The military might be included in decision-making in a number of non-democracies outside of military rule including civilian-led regimes, and democracies, and how this process interacts with resource allocations warrants an empirical investigation.

I suggest the inclusion of the military into government offers the armed forces a feasible way to impose budgetary preferences, and thus yield greater military outlays and fewer social

---

<sup>1</sup> Guns and butter here distinctly refer to military expenditures and social expenditures. Other studies use this terminology to discuss military spending in relation to economic growth, but to be clear, that is not the focus of this study.



outlays relative to more civilianized governments. Understanding how this process occurs requires understanding how the military's integration into politics impacts non-democratic and democratic contexts. In essence, what does it mean when officers are brought into political decision-making in democracies and autocracies? Starting with the latter, previous iterations of dictator-military relations suggest that in order for the dictator to maintain the armed forces' loyalty, concessions in line with officers' preference must be made (e.g., Svolik, 2012; Acemoglu et. al, 2010). Often these concessions fall apart, with the dictator unable to consistently meet the armed forces' demands for goods, thus prompting the military to oust the leader or rescind support (Svolik, 2012). Given this propensity for commitment issues inherent to dictatorships, I follow suit (e.g., Boix and Svolik, 2013; White, 2019). Thus, the inclusion of officers into government could operate as a way of establishing a pact between the dictator and the military, with special assurances provided to the armed forces relating to their policy preferences in exchange for staunch loyalty towards the dictator. This also allows officers to have direct access to determining policy relating to resources and other policy preferences of the armed forces.

Within the context of democracies, integrating the military into politics might also occur to mitigate temporary commitment issues following a transitional period. This perspective focuses on the democratizing regimes and "pacted" transitions away from authoritarian or military rule, highlighting how democracies avoid the military's "veto of democracy" (Powell et. al, 2018, pg. 1154). When preceded by an era of heavy military involvement in politics, democratic transitions face a high likelihood that a military-imposed reversal will occur if the armed forces perceive a threat towards their corporate interests, status, and other privileges previously enjoyed (e.g., Bell, 2016; Acemoglu and Robinson, 2006; Powell et. al, 2018).

Whereas the dictator might be able to remove threats from the armed forces while simultaneously allying with the military through purges, ethnic stacking and other coup-proofing methods (e.g., De Bruin, 2017; Sudduth, 2017a), democratic leadership faces greater legal constraint to target rivals or threats within the military. Thus, integrating the armed forces into political decision-making in the context of democracy potentially serves as a means to signal commitment to the armed forces that their preferences will not be harmed and offers military elites a position to safeguard their interests. Though this arrangement may be temporary, it signals to military elites that the new regime will still recognize the importance of the armed forces and not move counter to its wants.

Be it in the context of democracy or autocracy, the military's integration into politics yields implications for civilian decision-making and policy output. Bringing the military into politics introduces a potential competing faction towards the traditional civilian monopoly over policy. Put otherwise, civilian elites generally hold a general monopoly over policy in the realm of governance, with their own preferences generally dominating how resources are allocated. When a competing faction (here being the military) with distinct budgetary preferences is introduced into government, the monopoly civilian elites hold over decision-making is expected to reduce as officers are likely to impose their own wants on resource distribution. Given the assumption that military elites have powerful incentives to secure resources even at the potential cost of other sectors, I expect resource distribution relating to guns and butter to reflect these incentives and preferences.

This thesis's question and my responding theory inherently invoke a number of complex processes, relationships, and theories relating to regime type, resource availability, and civil-military relations. At its starting point, this topic acknowledges the general consensus in the

literature that relative to democracies and all else being equal, autocracies allocate greater goods to the military and fewer goods to social programs (e.g., Goldsmith, 2003; Fordham and Walker, 2005; Brauner, 2014; Huber et. al, 2008; Lake and Baum, 2001; Carter, 2011; Carter and Palmer, 2015). As democracies are beholden to the general public to a greater degree than autocracies, democrats focus their resources more so on social programs to appease the masses (e.g., Bueno De Mesquita et al., 2003; Carter, 2011). One potentially confounding factor would be the role of the military within the government or politics more broadly. An increased presence is expected to yield outcomes more in line with the armed forces relative to other regimes with a decreased presence, democratic or otherwise.

This topic also concerns itself with the notion of resource availability. A key assumption here is that states must contend with finite resources, and patterns of spending are a result of preferences relating to those in power. To be clear, the explicit debate of “guns versus butter” or whether or not military spending explicitly crowds out social programs as an inherent function is beyond the full scope of this thesis. Rather, this thesis considers military elites as actors with greater incentives to allocate greater military resources relative to civilian elites and fewer incentives to use resources for social programs, relative to civilian elites. Put otherwise, military elites and governments committing to power-sharing with military elites are likely to prefer higher levels of military spending and lower levels of social spending relative to other forms of more civilianized dictatorships and democracies. I flesh out these dynamics further in the theoretical explanations.

Finally, this topic addresses with dynamics relating to civil-military relations, specifically how the threat of a breakdown in civil-military relations might shape certain behaviors such as allowing the armed forces roles in decision-making. Inherently, I assume that poisoned civil-

military relations may occur in any political regime, democratic or non-democratic. Coup propensity across democracies and non-democracies illustrate this assumption. Between 1945 to the start of the 21<sup>st</sup> century, more than 60% of dictators were ousted in coups d'état by "regime-insiders", which require the explicit or implicit involvement of the armed forces to occur (e.g., Svobik, 2009, 2012). This observation signals that the military is an important actor within autocracies and in order to maintain power, which leaders usually desire (e.g., Tullock, 1987; Downs, 1957), dictators need to contend with the armed forces and a potential method might include honoring resource preferences. This is by no means a novel application: scholars focusing on coups, militaries, and dictatorships have argued on similar grounds (e.g., Zuk and Thompson, 1982; Kim, Kim, and Lee, 2013; Collier and Hoeffler, 2006, 2007).

However, in recent years, an increasing minority of coups have targeted and successfully unseated democracies (e.g., Bell, 2016). In fact, roughly 46% of coups between 2000 and 2009 targeted democratic regimes around the world, signaling that democracies are not as insulated from the coup d'état or contentious civil-military relations as previously assumed (e.g., Lindberg and Clark, 2008; Marinov and Goemans, 2013). This thesis seeks to understand how different regimes mitigate coup propensity and attempt to integrate the military in, and the consequences of such actions.

I empirically test these assumptions in a number of ways. First, I draw on data capturing Military Participation in Government (MPG) (White, 2018) to model the inclusion of officers in office across a number of settings outside of military rule and across democratic and non-democratic regimes, with a focus on the role the military plays in government. For instance, do the armed forces occupy security roles such as the Interior Ministry and Defense Ministry? I test a number of these specifications against resources relating to the military's budget and resources

relating to the public services, such as health and education to understand the military in politics impacts resource allocation.

This thesis makes a number of contributions to the bodies of literature concerning civil-military relations, resource allocation, democratization, and authoritarian politics. First, it continues to build on previous iterations of the military's corporate interests in democratic and non-democratic settings but moves beyond the world of overt military rule and military coups and focuses on an understudied avenue of military involvement in politics: integration into government and power-sharing with civilian elites. Second, it seeks to understand how preferences of military elites may shape other avenues of government spending outside of their own budget, under the condition that officers gain access to decisive roles in governance. Third, it seeks to understand how the military's involvement in politics signals different processes dependent on regime type and suggests that although democracies may spend more on public services and less on the military relative to dictatorships, the role of the military in each respective regime may shape these spending priorities.

I spend the remainder of the thesis as follows. I highlight relevant literature pertaining to government spending, regime type, and civil-military relations to inform my theoretical expectations. I follow up my expectations and hypotheses with a discussion on the data and methods used to investigate my arguments. This discussion is followed by my results and analysis. I conclude the thesis with potential avenues for future research as well as potential policy implications for my findings.

## **CHAPTER TWO: LITERATURE REVIEW**

### **1. Understanding the Impact of Political Decision-Making on Scarce Resource Allocation**

I reiterate that my main claim does not necessarily suggest an inherent trade-off between military spending and social spending as implied by the classic notion of “guns versus butter”. Rather, I argue that military elites may have greater incentives to allocate scarce resources to the military budget relative to civilian elites, potentially drawing away resources from social sectors, and obtaining access to political power allows officers to act on these incentives via a number of potential mechanisms. Furthermore, my main claim does not necessarily predict that the inclusion of military in government means greater military spending relative to the country’s own social spending. A militarizing regime may yield greater military outlays and fewer social outlays relative to a more civilianized regime, but within the former’s own country, social spending may still be higher than the military budget. These clarifications are important to keep in mind when interpreting my arguments and results. However, understanding the relationship between guns and butter, and whether empirics support an inherent trade-off between two and the avenues leading to the adoption of such a trade-off remains important for this thesis.

Empirics and theories addressing a potential nexus between guns and butter begin at a starting point of scarcity (e.g., Russett, 1969; Coutts et al. 2019; Daoud, 2011; Connely and Perlman, 1975). All states are burdened with unlimited wants and finite resources to address these wants (Russett, 1969; Daoud, 2011). The traditional “guns versus butter” assumption thus suggests that increasing funds to social spending “crowds out” resource for the military sector and vice-versa (e.g., Russett, 1969; Coutts et. al, 2019; Fan et. al, 2018). Resources are, as a

result, in competition with each other and decisions to allocate to one sector crowd out allocations to another sector.

Little consensus exists on whether defense spending compromises allocations towards social spending via a crowd-out effect. Russett's seminal work (1969) provides the first empirical test of the trade-off hypothesis, finding a strong negative association between military funds and health and education outlays across a thirty year span in the United States. Subsequent years saw a number of scholars either add further evidence of a trade-off effect within the United States (e.g., Peroff and Podolak-Warren, 1979; Dabaleko and McCormick, 1975) or report little to no evidence of a trade-off (e.g., Domke et. al, 1983; Mintz, 1989). Outside of the United States, scholars also report mixed results using other country-specific data as well (e.g., Caputo, 1975; Ali, 2011; Wang, 2014). For instance, Wang (2014) finds that between 1956-2006, the contemporary Chinese budget demonstrated clear trade-offs between defense spending and public services, with the military budget downsizing and public services increasing by the end of the 20<sup>th</sup> century. Sezgin (2002) and Ali (2011) find similar trends in Turkey and Egypt respectively, whilst very little evidence of a trade-off is found in an analysis of Pakistan's budget (Frederickson and Looney, 1994).

Cross-national, time-series data also report mixed results. For instance, Harris et al. (1988) find no evidence of defense-welfare trade-offs in a panel of twelve Asian countries whereas Lin et. al (2015) finds a positive relationship between defense and social spending in OECD countries. However, cross-national studies in Latin America yield clear trade-off practices (Apostolakis, 1982) while this trade-off is less explicit in the Middle East and North Africa (MENA) (Coutts et al., 2019). Recent global samples within a temporal span of 2000-2013 suggest a negative correlation between defense spending and health spending, with robust

findings from Fan et. al (2018). Carlton-Ford et. al (2019) finds that higher spending per soldier negatively correlates with child mortality rates across a global sample while Ali and Adan (2013) find that armed conflict expands the military's budget and negatively correlates with child mortality rates as well.

Though the verdict on the defense-welfare nexus is still out, scholars have noted certain trends of government spending relating to political factors such as regime type. At the outset of the thesis, I acknowledged the general consensus surrounding trends in government spending of dictatorships: all else being equal, autocracies allocate greater resources to their militaries and fewer resources to their social programs relative to democracies (e.g., Bueno De Mesquita et. al, 2003; Fordham and Walker, 2005; Carter, 2011, 2017; Carter and Palmer, 2015; Brauner, 2014; Goldsmith, 2003; Haggard and Kauffman, 2008). Causality is posited to stem from a number of factors, such as the conflict-averseness of democracies (Fordham and Walker, 2005) driving military spending down, and the contestable nature of democracies (Lake and Baum, 2001) allowing citizens to levy for greater social resources.

Of particular interest are the differences in institutional set-ups between democracy and dictatorship and the notion that leaders generally want to remain in power (e.g., Downs, 1957; Tullock, 1987; Carter, 2011, 2017). Given that democratic leaders are generally beholden to the general public to maintain office, budgetary efforts are largely spent to reflect the public's needs and as the public generally prefers greater resources, these efforts are made in social programs and drawing resources from the military is a potential avenue to fund them (e.g., Bueno De Mesquita et. al, 2003; Carter, 2011; Carter and Palmer, 2015). Dictatorships, on the other hand, rely on a smaller subset of elites to maintain their tenure and thus allocate resources based on the preferences of elites (e.g., Bueno De Mesquita et. al, 2003, 2011; Carter and Palmer, 2015).



Carter (2011) and Carter and Palmer (2015) are notable for my purposes here with their extensive investigations under which regime type dictates how guns and butter are allocated. During peace and war times, Carter (2011) and Carter and Palmer (2015) find that democratic leaders are voted out when military spending is higher and public spending is lower whereas the inverse holds for autocracies . The causality here is posited to stem from the socio-economic distinction of elites and the public in autocracies, with elites being more likely to tolerate lower public spending than the public as elites are generally wealthier and can afford access towards more privatized means of health and education (Carter, 2011). This reasoning thus suggests that as top military elites may comprise a segment of the elite apparatus, greater military funds would help maintain the dictator's tenure and cuts to military spending lead to her downfall i.e. a coup attempt. However, this assumption cannot hold when unpacking variations of government spending across autocracies. Various dictators rely on various segments of society to prop up their regimes (Geddes, 1999; Haber, 2006) which may often be a civilian party, ethnic group, or business tycoons, and thus reduces the incentive to allocate resources to the military in lieu of these civilian elites. Furthermore, the military may remain an influential actor in democratic regimes, specifically following transitional periods from dictatorships in which the military played a key role. The implication here is straightforward: greater emphasis should be placed on the role of the armed forces within politics when building expectations of “guns and butter” and understanding the policy preferences and incentives of military elites is crucial in this regard.

## **2. Understanding The Military's Preferences**

My argument focuses on the inclusion of military elites into political decision-making roles. Understanding how and why this process sets military elites in a position to impose preferences on resource allocation requires a review of literature on the military's key interests, followed by

a discussion on how integration into political power allows for these interests to play out. At the heart of this discussion is the traditional “civil-military problematique” (e.g., Feaver, 1999) or recently renamed to the “guardianship dilemma” (McMahon and Slantchev, 2015). The paradox is simple: given that the armed forces have access to a polity’s coercive tools, the military has the potential to protect the polity or dismantle it. By nature, this condition distinguishes the military from all other actors within a given polity as the actor to credibly back threats with violence. The distinction of bearing arms also allows certain incentives and preferences to develop within the armed forces, distinct from incentives and preference of civilians (e.g., Nordlinger, 1977; Huntington, 1957; Feaver, 1999, 2005; Kenwick, 2017).

Two key assumptions are drawn, as a result. First, the military, specifically military elites, will pursue behavior allowing them to fulfill these preferences. Second, given the distinction between civilian and military preferences, civilians will (generally) have fewer incentives to impose the military’s policy preferences to its fullest degree (e.g., Kenwick, 2017). Though many civilian-dominated regimes might temporarily adopt policy more in line with military preferences, these concessions are unlikely to match the extent to which officers would impose their own preferences. Put simply, when civilians dominate policy-making and politics more generally, their preferences largely dictate policy output, here being resource allocation, and civilian elites generally have fewer incentives to implement the military’s full range of desires. Military preferences may range across a number of policy-decisions and special privileges (e.g., White, 2019; Feaver, 1999; Majeed and MacDonald, 2010). For instance, more professionalized military elites may hold specific views on security issues and broader defense-related issues, often informed by prior military experience or broader military culture (Horowitz and Stam, 2014; Kenwick, 2017; White, 2017, 2019). Outside of professional interests, some militaries may

wish to cultivate special privileges for the armed forces relative to the rest of society, in line with the military's "corporate interests" (e.g. Nordlinger, 1977; Perlmutter, 1969, 1977; Macdonald and Majeed, 2010).

The Sudanese Armed Forces (SAF) illustrate the latter notion well. An extensive history of formal involvement in the political process, characterized by holding governmental positions, and informal involvement, characterized by coup attempts, yielded the SAF a number of benefits outside the barracks, primarily in the economic sector. Officers in the SAF were reported to have gained access to leases over massive swathes of public land, previously restricted to private ownership, for their own leisure and usage as well as oversee the provisions of import licenses (Majeed and MacDonald, 2010). Furthermore, members of the SAF were also given oversight of commercial enterprises, consolidated under the Military Economic Board (MEB) and Military Commercial Corporation (MCC) (Bienen and Moore, 1987). Both of these corporations were allowed preferential access to foreign exchange revenue, given the ability to establish monopolies in the private sector, and a number of other privileges restricted to military officers (Bienen and Moore, 1987).

For this thesis's purposes, the military's main preference of concern is its share of national resources and how the military may have strong incentives to use resources for its own funding. Both professionalized and less-professionalized militaries may benefit from high levels of military spending, for a number of reasons. As mentioned previously, professionalized militaries may hold distinct views on security issues and prefer greater resources to contend with these issues in the form of "toys" such as advanced hardware or greater resources for training personnel. On the other hand, less professionalized militaries may benefit from high levels of military spending by the potential increase of salaries, benefits, and prestige accompanied with a

loftier budget. Thus, one may assume that officers have the greatest incentives to use resources for the defense budget, to better either the lot of their individual personnel or the lot of the military as an institution.

When considering the preferences of military elites, particularly with military spending, the threat of a coup d'état remains relevant to the discussion. Empirical evidence has established a number of relationships between coups d'état and military budgets (Collier and Hoeffler 2006, 2007; Leon 2013; Powell 2012, 2016; Kim, Kim, and Lee 2013; Bove and Nistico, 2014; Albrecht and Eibl 2018). For instance, Collier and Hoeffler (2006) report findings suggesting that leaders facing a “coup risk” quickly move to increase military spending to reduce incentives for officers to oust the government, suggesting that militaries extort their own governments. Powell (2012) finds evidence suggesting that higher spending per soldier also deters the probability of a coup attempt, while later establishing that young democracies face the greatest risk of an ouster when per soldier spending is low (2018). Leon (2013) reiterates that coups generally occur when military spending is low and finds that successful coups often lead to high increases in military spending while unsuccessful coups lead to more modest yet somewhat substantial increases. Bove and Nistico (2014) expand on the causal direction, employing a counter-factual approach, reporting back the positive impact successful coups have on the military budget. Case studies support the quantitative empirics as well. For instance, Kawaura's investigation into Thailand's military budget in the modern period yielded a trend of increased outlays after every coup attempt (2018).

The evidence suggested above highlights the potential for the armed forces to stage a coup as a means to increase their share of resources or when their share is actively threatened. This begs to question how governments manage the military's preferences and incentives as well

as manage the notion that a coup might occur and unseat the executive. As mentioned at the outset of this paper, though coups are generally thought of as authoritarian processes, coups have also targeted democracies, primarily when these regimes are young democratic experiments or in particularly fragile situations, such as post-conflict or in economic decline (e.g., Bell, 2016; Powell et. al 2018). The following section highlights civil-military management in democracies and non-democracies, focusing on how regime type might inform how governments respond to broader civil-military relations, and how integrating the armed forces into politics might potentially serve a purpose for both dictators and democrats, as well as the military.

### **3. Democrats, Dictators, and Bringing Officers In**

How does integration into politics offer military elites the potential to pursue these interests to the degree that their full preferences are imposed? To reach an understanding of this process, it is important to understand how integration into politics plays into broader democratic and non-democratic politics. Note that when I refer to integration into politics, I speak outside of overt coup attempts, in which the military stages a coup and seizes power as an institution. Rather, this process might potentially occur across civilian-led autocracies, military-led autocracies (in which a military officer heads the regime), and democracies.

As mentioned previously, coups d'état might occur across non-democracies and democracies, but this is by no means the only interaction between broader politics and the armed forces, specifically in dictatorships. Given the violent dynamics within authoritarian politics (Svolik, 2009), ensuring the political backing of the military is critical for the dictator. Two formal theories are instructive here: Svolik's Moral Hazard theory (2013), and Acemoglu et. al's Theory of Military Dictatorship (2010). Under both theories, the starting point focuses on the dictator requiring the military's loyalty to maintain her tenure and navigate through internal

threats to the regime. These threats might include intra-regime rivals with hopes to establish their own regime, or the broader masses seeking to transition to democracy. Though this reliance might equally allow a potential rival to fester within the armed forces, the dictator may adopt the military's policy preferences and allow for special endowments as well as institutional autonomy (Acemoglu et. al, 2010; Svolik, 2013) while simultaneously purging out potential rivals from the armed forces, counterbalancing the military amongst other methods to stifle competition (e.g., Sudduth, 2017a, 2017b; Roessler, 2011; Pilster and Böhmelt, 2011; Powell, 2012; De Bruin, 2017; Enloe, 1975). Given that the dictator faces fewer legal constraints upon her actions, she may ensure the military's loyalty through concessions whilst also structuring the armed forces in a manner to personally suit her needs. This alliance marries the dictator's tenure to military elites' corporate interests, establishing a support base so long that the dictator continues to allow special perks for the military and its elites. From the military's perspective, this commitment is attractive because it also signals that political takeovers are not necessary to impose their policy preferences (e.g., White, 2019). Coups may equally be as unattractive to military elites because of their uncertainty and likelihood of success, especially if there is little consensus behind the coup (Little, 2017) and the post-coup repression might be costly i.e. death, exile, imprisonment (e.g., Easton and Siverson, 2018; Powell, 2012).

As Svolik (2013) and Acemoglu et. al (2010) note however, these alliances have the potential for breakdown when the armed forces perceive faltering by the dictator and a lack of commitment to their preferences, sparking the incentive to stage a coup or defect from the dictator's entourage. These "commitment issues" may potentially be mitigated by offering military elites positions to directly influence and manipulate policy to their favor (Boix and Svolik, 2013; White, 2019). As Boix and Svolik (2013) argue, the introduction of power-sharing institutions

such as a legislatures and political parties ameliorate commitment problems through a number of mechanisms. First, dictatorships adopting power-sharing institutions are able to yield greater transparency amongst those in high-ranking positions and reduces the ability for the dictator to renege assurances (Boix and Svolik, 2013). Second, these dictatorships also publicly show a commitment to power-sharing agreements and reduce the ability for misperception that the dictator will inevitably renege by allowing elites to directly influence and impact policy. White (2019) expands this argument to include the notion of power-sharing with military elites in a state's national cabinet. Of potential interest here are the military's corporate interests relating to policy preferences and resource allocation. Placing officers in positions of high-level decision-making a) allows them a direct seat to budgetary decision-making and b) reduces the ability for the dictator to backtrack and challenge the military's resources discretely (White, 2019). As a result, when dictators seek to ally with the armed forces as a political faction or as a means to ensure loyalty, one potential method to credibly commit to policy preferences is to integrate military elites into political power and allow them access to resource allocation.

Democracies, particularly young or weak democracies, face a number of hurdles with the armed forces as well, and potentially sit at a greater disadvantage than non-democracies. Per Bell (2016) and Powell et. al (2018), democracies face an additional hurdle to mitigate issues with the armed forces: legal constraints. As mentioned above, autocrats may rely on a number of alternative methods – such as purging, ethnic stacking, etc. - to systematically defang the armed forces while also allying with military elites in order to ensure maximum compliance and reduce the threat of defection – or worse, coups d'état. Furthermore, the dictator might allow for extra-legal methods of patronage to also contend with the armed forces such as kickbacks and side payments (Powell, 2012). These potential methods are not readily available to democratic

leaders, constrained by a larger degree of oversight and greater constraint relative to the autocratic counterpart (e.g., Bell, 2016).

These constraints are paradoxically harmful to democracies and democratic consolidation more broadly, specifically when the democratic regime was preceded by military rule or a highly politicized military (e.g., Cheibub, 2007; Svobik, 2008; Kenwick, 2017; Powell et. al, 2018). Given that military elites enjoyed a status of prestige and privilege in a previous regime – either through direct rule or through alignment with the regime, the cost of allowing a democratic transition is relatively high for the armed forces. Additionally, transitioning to democracy also potentially increases the risk that the armed forces will face repercussions and marginalization in perpetuating the previous regime’s human rights abuses. This notion also speaks broadly to the notion that history matters for civilian control of the military as posited by Kenwick (2017) and others before him. At the starting point of the democracy inheriting a politically-powerful military, civilianized institutions remain relatively new, with military elites perceiving a potential threat from these new set of institutional rules (e.g., Kenwick, 2017). Given these inherent civil-military tensions as well as the inability for democratic leaders to rely on a wide array of tools to contend with the armed forces, how might democracies, particularly weaker democracies, mitigate threats?

Powell et. al (2018) address a potential avenue: through legally offering the military concessions in the form of “toys”. Powell and colleagues find that coup risk is higher for younger democracies relative to civilianized autocracies, but this threat is mitigated when these newer democracies allocate greater expenditures to the armed forces, stressing the importance of committing to the military. This tactic is potentially the result of placing officers in political decision-making as a means to safeguard their own interests (e.g., White, 2019; Wright and



Escriba-Folch, 2012). In fact, in terms of credible commitment, this method could potentially be more attractive for democratic leaders who lack the ability to commit through extra-legal assurances or target rivals within the armed forces and must, instead, legally concede some power to the armed forces. As White (2019) states, “there are opportunities for leaders and the military to share power rather than fight over it. Political power is divisible.” (White, 2019, pg. 7). Though soldiers might not want to rule (Geddes, 1999), military elites potentially have a vested interest in remaining in some political decision-making to guarantee their interests are safeguarded by a new set of institutional rules.

The discussion above implies that the leader – democratic or dictator – may often adopt policy preferences of military elites in order to ensure loyalty to her tenure or to refrain from staging a coup. Though these arrangements may occur with the military removed specifically removed from government, bringing officers into government is another potential avenue and can reduce the potential of commitment problems by allowing elites to be the deciders as opposed to advisers on policy and further hold the leader accountable (e.g., Svolik and Boix, 2013; White, 2019). This study builds off these previous iterations to investigate the potential trade-off of allowing military elites into political decision-making, and how policy outputs could potentially reflect the incentives of officers, who have a general interest to prioritize “guns over butter”, relative to civilian counterparts.

This review has analyzed prior literature on “guns and butter”, finding little consensus to the notion that expenditures crowd themselves out. However, literature suggests that certain trends relating to guns and butter exist, with autocracies allocating more goods to the military and fewer goods to the public relative to democracies. A potential confounding variable is the relative involvement of the military across democracies and non-democracies. Previous iterations

understand military elites as actors with distinct preferences relating to resource allocations relative to civilian elites, highlighting the former as having clear incentives to prioritize military spending over other forms of spending such as public services. This suggests that when military elites have access to political power, their preferences for “more guns at the expense of butter” are likely to be reflected in policy output. I also consider what integration into politics means for broader democratic and non-democratic politics and why leaders would choose to allow the military into political power. In the next section, I parcel out these processes and use examples to highlight how integrating the armed forces into politics in both autocracies and democracies should yield greater guns and less butter.

## **CHAPTER THREE: THEORITICAL EXPECTATIONS AND HYPOTHESES**

### **1. Integration: Privileges, Power-Sharing, and Preferences**

I model my expectations under the assumption that policy outcomes relating to scarce resources in authoritarian regimes are generally the product of elite-based preferences, and that policy outcomes in democracies are generally shaped – to some degree – by elite-based preferences as well. This initial assumption yields two additional assumptions. First, military elites have distinct preferences from civilian elites relating to how guns and butter are distributed across society, and greater incentives to utilize scarce resources for the defense budget, prioritizing “guns” over “butter”. What method draws resources away, crowding-out or reallocation, is beyond my argument here. Rather, I argue officers (generally) perceive a greater benefit from high levels military outlays than high levels of social expenditures relative to civilian actors and may pursue policy reflecting this notion. Organizational incentives and potential prestige associated with a greater number of resources allocated to the institution offer military elites motivations to prioritize military-related privileges, even at the inherent (crowding-out effect) or active expense (reallocation) of other sectors. To be clear, I am not suggesting that all increases of defense outlays increase individual officers’ pockets, lead to greater toys, or the like. Where the increased resources end up is beyond my argument; what is important is that military elites perceive a benefit from accumulating greater resources. As a result, I expect officers to pursue behavior reflecting these perceptions, incentives, and preferences.

Second, civilian elites are generally unlikely to match the implementation of officers’ policy preferences to the extent that military elites would when in office. Indeed, a number of civilian-led governments adopt policies in line with military preferences, but it could be argued

that these concessions generally could never potentially reach the extent that military elites wish. Officers will generally better manage imposing their wishes when they occupy high-level governmental positions as opposed to signaling them to civilians in similar positions. Likewise, civilians generally reap fewer rewards from adjusting military spending beyond the parameters they set. Although national defense benefits civilian elites, military elites, and the general public as a public good, resources beyond the parameters for national defense are generally more attractive for military elites than civilian elites.

Taken together, these assumptions suggest that military elites could potentially have a vested interest in imposing their own policy preferences instead of allowing civilians to regulate their own affairs. Obviously, the clearest path to imposing their own preferences is through staging a coup and seizing overt power. However, staging a coup is not always optimal because of inherent coordination issues military elites might face when garnering support to stage a coup and the cost of such an endeavor failing is steep i.e. arrest, exile, or execution (e.g., Little, 2017). Furthermore, staging a coup to impose preferences may not even be necessary; governments are generally likely to make concessions prior to the threat of an ouster. Furthermore, leaders – primarily dictators – may have a vested interest in politicizing the military, potentially to the extent of bringing them into government, signaling that a coup is not necessary to impose policy preferences. I detail this process below, with a focus on non-democracies.

## **2. Integration into Autocracies**

My discussion of dictator-military relations begins with the dictator, in the same vein as Svolik (2012) and Acemoglu et. al (2010) and Acemoglu and Robinson (2006). Given the violent preconditions of authoritarian contexts (Svolik, 2009), the dictator generally needs to rely on allies with the capacity to utilize violence to navigate through internal threats such as potential

rivals within and without the government, and more broadly support her tenure. As a means to ensure compliance and loyalty, the dictator may draw upon repression and cooptation to earn the military's support (Wintrobe, 2000). These methods could translate into purging the armed forces out of disloyal factions, ethnically-stacking the military, and a number of other loyalty-building techniques. To earn support through the loyal factions in the military, the dictator may also offer kickbacks, side payments, and potential privileges such as land seizures and the like (Powell et. al, 2018) in exchange for loyalty. One potential avenue (though not the only one) to add credibility to this agreement is by formalizing it via integrating military elites within politics. By integration into politics, I refer to the appointment of high-ranking military officials into high-level cabinet positions or some form of political decision-making role. I specify high-ranking military officials or military elites because politically-involved military personnel often are drawn from the upper strata of the military's hierarchy, and many of these elites have earned said positions through loyalty to the dictator.

Again, I stress that the dictator may honor military elites' policy preferences short of integration into government, but that integration serves as a potential avenue to mitigate some of the assumptions taken here, such as the lack of incentive for civilians to match the full extent of military preferences, and allows military preferences and incentives to formally intrude into the governing body. Furthermore, as stated earlier, an alliance between the dictator and the military has the potential to suffer from commitment issues and misperceptions that the dictator might, at any time, renege on established agreements (Svolik, 2012). Integrating military elites into power-sharing institutions helps alleviate these tensions (e.g. Boix and Svolik, 2013; White, 2019). So, while Milton Obote's reliance on Idi Amin and his cronies illustrates a strong example of reliance on the military as an ally (Saul, 1976), this case is not included in my specification

because Obote never formalized the military's role in his regime. However, his eventual successor, Yoweri Museveni, provides a strong example as Museveni has well integrated officers into political office throughout his thirty year tenure, formalizing the role of the military into the political sphere (Girke and Kamp, 2011).

One important clarification to make is that the discussion above can illustrate civil-military dynamics in both military-led dictatorships and civilian-led dictatorships. Though military preferences may dominate in military-led dictatorships, dictators with a military background or active duty may confront competing preferences because of the burden of leadership (White, 2017). As this military-based dictator (such as a military strongman) may wish to maintain the loyalty of other military elites and use them as a base for political support, the same commitment needs to be made with other military elites and a potential avenue to ensure this commitment holds is through military integration.

How this integration of officers into office impacts civilian elites and civilian preferences more broadly is of importance as well. In other words, how does the integration of officers into political power undermine civilian preferences even under power-sharing between officers and civilians? Given the assumption of distinct military preferences, integration could be expected to introduce a rival faction with consolidated incentives within the national cabinet. Though military elites may have internal divisions themselves, greater resources as a policy preference could unite them as a political bloc against the civilian bloc. As a result, integration reduces the civilian monopoly over resources/policy that civilian elites generally have and introduces specific preferences and incentives to utilize resources in a way that benefits military elites, even at the potential cost of other public sectors.

One might assume that if the ratio of officers to civilians favors a civilian majority, this might curtail the military's preferences to a degree. Thus, although the dictator might integrate a small number of officers with incentives to increase military spending even at the inherent or direct cost of social spending, keeping the government balanced or in favor of civilians might mitigate this issue. However, the dictator might have incentives to elevate officers' preferences in government above those of their civilian counterparts if the military operate as a strong source of political power. This offers greater credibility to the dictator's commitment to the military and signals privilege to the armed forces, further tying the military's preferences to the dictator's tenure.

Venezuela under Nicolas Maduro captures this potential preference particularly well (Tian and Da Silva, 2019). Whereas social programs were relegated downwards due to the economic distress, the official military budget remained largely the same, withstanding calls to reduce allocations to the armed forces and decrease the budget deficit (Tian and Da Silva, 2019). When inflation levels threatened to reduce public spending as a whole in 2017, the regime began allocating resources outside of the state budget, drawing on the Venezuelan Central Bank to subsidize additional funds to government spending. Although the widespread health crisis prompted the government to seek the greatest additional funds for the health sector, the military came in close second as the greatest recipient of off-budget resources (Tian and Da Silva, 2019; Transparencia Venezuela, 2018). This trend reflects the continuing legacy of the Venezuelan military's presence in politics, long-standing since the collapse of Marco Perez Jimenez's dictatorship in the late 1950's and exacerbated by Hugo Chavez after securing the presidency. Budgetary policies favored the military during Chavez's regime as well, reflected by the militarization of the National Development Fund. Originally reserved for subsidization of public

sustainable development, Chavez's regime began re-funneling resources from the Development Fund to the military's budget, with an estimation of roughly \$6.9 billion dollars allocated to the armed forces between 2005-2015 (SIPRI, 2017). Although civilians may have had a larger bloc in government than officers, preferences given to the armed forces allowed their policy preferences to reflect in budgetary decisions.

Outside of clear preference, the dictator may also begin supplanting civilian elites with military elites, reducing the leverage civilians have within policy-making. Ferdinand Marcos' regime in the Philippines portrays this displacement of civilian elites in favor of military officials, a trend established by previous president, Ramon Magsaysay. Whereas Magsaysay believed that the military apparatus could demonstrate greater efficiency in political roles relative to the civilian bureaucracy, Marcos sought this tactic as a means to consolidate support from the armed forces (Selochan, 1991a). Civilian bureaucrats were either sidelined out of any substantial impact over decision-making or overtly supplanted by military officers, effectively stacking Marcos' ruling cabinet with the armed forces at every level of decision-making (Hernandez, 1985). Resources were, as a result, left to the military's oversight, with Marcos greenlighting a number of budgetary adjustments directly benefiting the military and relegating nonmilitary preferences. For instance, the era of martial law witnessed outlays in defense spending increase from 13.8% to roughly 21.8%, with funds primarily drawn from the education budget, in turn decreasing expenditures from 31% to roughly about 19% of government spending (Lim, 2011). Furthermore, allocations outside of the military budget were also used to funnel greater resources to the military, such as the general public services sector, which contained items concerned with internal defense, and civil infrastructure projects headed by officers (Hernandez, 1985). Marcos' alliance with the military highlights the potential outcome of preferential treatment towards



military officials in political roles. As officers become the source of political support in lieu of civilian bureaucrats, the dictator is likely to expand the military's degree of oversight regarding decision-making, in turn reducing the degree of influence civilians may levy.

In sum, understanding why integration of military into non-democratic politics might yield greater “guns” and less “butter” operates on two causal mechanisms: the military's policy preferences, and the dictator's reliance on the military as a base of loyalty. Given that their preferences concern their military identities first and foremost, officers are most likely to utilize a state's scarce resources to increase their own outlays relative to civilian-dominated regimes and thus potentially yield fewer resources for the social sector relative to civilian-dominated regimes.

### **3. Integration into Democracies**

Integrating the armed forces into politics and allowing military elites to impose their preferences is not restricted to a process within authoritarian governments. Democracies, specifically younger or weaker regimes, also need to ensure the loyalty of the armed forces to abstain from hindering the consolidation of the new regime (e.g. Powell et. al, 2018; Svobik, 2015; Bell, 2016). In fact, as Powell et. al (2018) and Bell (2016) suggest, the threat of a coup against newer democracies is significantly higher relative to civilian autocracies. These younger regimes introduce new constraints against the leadership and military elites in attempting to preemptively defang the military, as in the case of purging or counterbalancing, as well as abolishing previous extra-legal rules and privileges military elites may have enjoyed, such as private kickbacks and side-payments, unaudited commercial ventures and more (e.g. Powell et. al, 2018; Mientzer, 2006). Given these circumstances, leaders lack previous extra-legal methods to placate the armed forces and military elites have potential reason to perceive marginalization and a threat to their interests. Furthermore, given the constraints on the executive, military elites are also likely

to assume a coup would succeed as fewer barriers – such as counter-balancing obstacles– exist to hinder their success within a democratic context (e.g. Pilster and Böhmelt, 2012; Bell, 2016). A number of democratic transitions illustrate this period of uncertainty and subsequent ousters by the armed forces such as Egypt (2012) and Argentina (1986). To be clear, this instability is not limited to younger democracies, but potentially includes weaker democracies such as Mali prior to the 2012 coup and Salvador Allende’s regime prior to the 1973 coup establishing the eventual Pinochet dictatorship, in which economic instability and political turmoil reduce the robustness of institutions. Many of these cases – for instance, Egypt and Argentina- witnessed democratic leaders attempt to marginalize many privileges enjoyed by the military in the previous regime such as economic autonomy and a place in politics. As a result, the military moved to veto these regimes through coups (Egypt) or mutinies (Argentina).

Recall the notion that power-sharing institutions can mitigate commitment issues and reduce the ability for leaders to exclude individuals from political power and offer credibility to arrangements (e.g. Boix and Svolik, 2013; White, 2019). Whereas dictators may use power-sharing institutions in conjunction with a number of extra-legal tactics to ensure loyalty, democrats must stay within the legal framework. As constraints hold leaders back from conceding extra-legal privileges to the military, one potential method to offer concessions is through integration into government, drawing on power-sharing institutions – or continuing some of its interactions in political decision-making. Evidence suggests that concessions to the armed forces during the infantile years of new democracies mitigates the threat of a coup and helps preserve democratic consolidation (e.g. Powell et. al, 2018). For instance, Powell et. al (2018) find that newer democracies offering greater resource concessions to the military are able to avoid coup attempts. These concessions might be part of a broader framework of preserving the

military's role in politics. Integration into government and allowing officers to impose their policy preferences are potential avenues to honor concessions. A key expectation is during these periods of military involvement, we should expect to see greater resource outlays towards the military and fewer to the general public relative to more civilianized governments. Though democracies must also provide public goods, it is likely this trade-off might maintain given that a coup attempt might be the most imminent threat and leaders are generally constrained from acting preemptively to defang the army. As stated by Powell et. al (2018), conceding to the elements of the previous regime is potentially a "...necessary evil early in the process" (Powell et. al, 2018, pg. 1166).

A number of "pacted" transitions towards democratic regimes have included military elites in political positions as a way of committing to respecting the armed forces' preferences and placate the military (e.g., Mientzer, 2006; Agüero, 1998). For instance, to avoid military unrest from the Brazilian Armed Forces, President Franco integrated about nine active duty officers into the national cabinet, which resulted in the maintenance of high salaries for top officers (Agüero, 1998). This was a tactic also employed by his predecessor, Sarney, who included the military in his own ruling cabinet, and allowed officers a great deal of privilege in shaping the national budget, with funds diverted from the National Development Fund to the military's budget (Zirker, 1993; Zaverucha and Rezende, 2009). This tactic is not limited to new democracies, however. Democracies facing internal strife, such as Salvador Allende's government in Chile, may still attempt to placate the military with conceding political power and integrating them into government.

In sum, understanding why integration of the military into democratic contexts, particularly critical moments of democratic rule, potentially yields greater guns and less butter

operates on similar mechanisms as non-democratic contexts: the military's policy preferences, and the leader's need to placate the armed forces. Given that extra-legal methods constraint the leader from preemptively striking at the military, this method could serve as an alternative method to "coup-proof." Though not explicitly hypothesized or argued, this process might even be stronger within democracies because of these constraints.

Two hypotheses are drawn from the preceding theoretical discussion, summarized in the table above:

*H1: As the involvement of the military in politics increases, resource allocations to the military are expected to increase.*

*H2: As the involvement of the military in politics increases, resource allocations relating to social spending are expected to decrease.*

The following section details my methodology and data sources to test my expectations and arguments laid out thus far.

## **CHAPTER FOUR: DATA AND METHODS**

### **1. Research Methodology – Choice of Statistical Model**

My expectations are tested using cross-sectional, time-series or “panel” data with my main explanatory variable, military involvement in politics, limiting the temporal span to no further than 2008. My unit of analysis is the country-year as coded by Geddes, Wright, and Frantz (2014) in their All Political Regimes dataset, limiting the empirical scope to states with a million or more residents as of 2009 (Geddes, Wright, Frantz, 2014). Transitional or foreign-occupied country-years are excluded from the data as well as any state with no or multiple governments (Geddes, Wright, Frantz, 2014).

The choice of statistical tool is largely determined by the nature of the panel data. Inherent to panel data is unaccounted unit-level heterogeneity, which if left unchecked will yield biased estimates and reduce the robustness of the estimator and its results (Cameron and Trivedi, 2005). To combat this challenge, I employ fixed-effect regressions to capture any unobserved heterogeneity relating to the spatial unit, here being a country (Beck, 2001). In other words, unobserved phenomena relating to a specific country might impact the dependent variables in question and bias the results. Including fixed effects in lieu of random effects and pooled models are the superior choice because of the assumptions made by these two alternatives. Random effects and pooled OLS assume exogeneity between unit-specific effects and the dependent variable, leading to a potential omitted variable bias. Though the standard errors are smaller in pooled and random effect models, and thus more efficient (Cameron and Trivedi, 2005), the level of bias they allow reduces the robustness of the results, making the fixed effects specification methodologically superior.

## **2. Dependent Variables – Military Outlays and Social Spending**

Budgetary resources relating to the military and the public are the key variables of interest. I begin with the former. A few caveats should be kept in mind. By nature, military spending is controversial, representing an expense states would prefer to conceal. One potential reason is that states have external incentives to conceal their military capabilities, of which military budgets may impact, such as to deliberately project greater coercive capabilities than they have in interstate disputes (e.g., Fearon, 1995). Thus, not only should states have incentives to misreport how much they allocate, but the nature of their allocations as well. Following Bove and Brauner's own words of caution (2016), outlays on military resources should also be taken with a grain of salt when compared because of the concealed nature of intra-budget allocations. Whereas some military budgets will have allocations focusing extensively on weaponry, training, etc., others might have allocations funneled more towards salaries, pension plans, and the like. This discrepancy raises a question of validity when comparing military budgets, given that different states, regimes, and military members prioritize different aspects in the military's budget.

In order to maximize the comparative value of military expenditures, I employ military expenditures as share of GDP. Military expenditures as share of GDP is useful for comparative analysis as it inherently controls for the size of GDP. This data is taken from the Stockholm International Peace Research Institute (SIPRI), arguably the best data on military spending available (e.g. Bove and Brauner, 2011, 2016). Data sources are primarily taken from Ministries of Finance, with a strict focus on open-source data. As a disclosure, SIPRI highlights the aforementioned issues I raised while also adding that a number of factors relating to state

capacity and poor management inherent to developing nations may impact the accuracy of the reported numbers.

My second category of dependent variables centers on nonmilitary spending in the form of social spending, namely health and education. Just as outlays towards the military are accompanied by a number of issues relating to accuracy and validity, outlays towards social spending ventures also face a number of methodological issues. For one, the compilation of global social spending is severely limited in temporal and spatial span relative to military spending. For instance, the World Bank and World Health Organization (WHO) global indicators relating to public health outlays begin at the year 2000, with previous data exclusive to OECD countries. In order to employ robust data with an extensive span to match my military allocation data, I employ a proxy to capture the performance of social programs, with the assumption that poorer performance relative to other countries correlates with fewer funds allocated relative to other countries.

My main proxy are Infant Mortality Rates per 1000 live births (IMR hereafter) (Carlton-Ford, 2003; Carlton-Ford et. al 2019; Bowman, 1996), used to capture variations in efforts towards the health sector and are taken from the World Bank. Not only are IMRs a strong indicator of performance of the social sector, but also are amongst the most receptive health outcomes to increases and decreases in funding (Rahman et al., 2018). For instance, 1% increase in total health expenditures decreased IMRs by 0.27 percent per 1000 births, with similar drops in IMRs reported when disaggregating total health expenditures into public and private health expenditures (Rahman et al., 2018). Aside from this sensitivity to expenditures, IMRs demonstrate an extensive temporal and spatial span, with World Bank indicators reporting comparative global rates as far back as 1960.

This proxy comes with its own inherent issues, however. For one, as with the case of defense outlays, comparing social spending ventures is difficult because of variations in where expenditures are allocated. Using IMRs to proxy social spending assumes a direct correlation between social spending rates, which although some evidence suggests a correlation (e.g., Rahman et al., 2018), is unlikely to be certain. Additionally, using IMRs somehow suggests that this trade-off or reallocation of resources between defense-welfare is inherently negative for broader society. This is unlikely to always be the case: military spending could potentially, if anything, promote greater economic growth (e.g., Dunne et. al, 2005). What is important here is the perception officers have of resources for the military, relative to the benefit extracted from other sectors, and are likely to pursue policy reflecting this preference. Again, these points are important to remember when interpreting my arguments and results.

I also opt to use education spending as share of GDP as an alternative dependent variable. Though suffering for missing observations, education spending ranges back to 1970, making it an acceptable variable to test my expectations. This indicator is drawn from the World Bank and will proxy broader social spending as one potential source of public services that may suffer when officers are in office.

### **3. Explanatory Variables**

My main explanatory variable across all three hypotheses centers on the military's involvement in politics. In my theoretical discussion, I defined the parameters for my understanding of military involvement as the integration of active-duty elites into a body of political decision-making. The integration into actual decision-making allows for a clear-cut demonstration of the military's policy preferences in actions, particularly in budgetary management. This explanation



requires data capturing the military's involvement in politics, to the extent that officers occupy a place in political decision-making.

A number of measures could potentially capture the presence of officers in political office. Dichotomous regime typology, subjective scores of the military's influence in politics, and coup attempt all have been utilized as measures to capture the military's involvement in government and its impact on a number of outcomes (e.g. Kim, Kim, and Lee 2013; Bove and Brauner, 2011, 2016; Davenport, 2007a; Weeks, 2008; Majeed and MacDonald, 2010; Bove and Rivera, 2014). Though insightful for the purposes of other studies, these measures all carry some limitation relating to the argument posited in this thesis.

Regime typologies are particularly problematic here for a few reasons. Depending on the dataset, regime type either captures instances in which the military overtly rules or instances in which there is no guarantee that the military is even involved in politics. The GWF Autocratic Regime (Geddes, Wright, Frantz, 2013) dataset codes military regime as a binary variable during instances in which the military holds de facto power in a given polity, with hybrid regimes, such as military-personalists, capturing similar conditions but with an additional component like a personalist dictator (e.g., Augusto Pinochet in Chile). Regimes such as Idi Amin in Uganda, the Chinese Communist Party in the 1970's, the PRI in Mexico, Chavez in Venezuela, all of which integrated the military into politics across a spectrum, are not included in such typologies. This limits the ability to gauge how increases or decreases of officers in office impact resource outcomes, a central argument to this thesis. Previous studies between authoritarian regime type and military spending (Bove and Brauner, 2011, 2016) have reported military rule's positive correlation with military outlays, yet my arguments extend beyond the scope of military rule and focuses on military integration as a whole. Furthermore, my theory and expectations also include

the military's relative influence within democracies and democratic settings. Inherently, this renders political regime variables as inappropriate for analysis as military regimes are primarily non-democracies.

On the flip side, the Cheibub et. al dataset (CGV hereafter) codes based on the political leader's identity and offers little insight to the role of the military in government. Although one could assume military leaders are more likely to integrate officers into politics, a number of cases suggest that officers might choose to marginalize the rest of the armed forces out. Muammar Gaddafi highlights this process particularly well, in that he took the active decision to *not* allow officers into his government (Gaub, 2013). Whereas CGV code Gaddafi as military, GWF code Gaddafi as personalist because the military had no role in his government. Kim, Kim, and Lee (2013) draw on the CGV dataset to establish the relationship between military spending and military regimes in a post-coup environment, but this method conflates military leaders with military rule and thus stands as inappropriate for the purposes of this study.

The CGV measure also highlights the issue of focusing on coup attempts to capture the military's involvement in politics in the manner presented in this thesis. Whereas coups might indeed highlight the military intruding into politics, it does little to establish the military's continued presence in the governing body. Often times, the military will quickly recede power to civilian elites or a personalized military leader will push out other military elites and marginalize them out of politics. Thus, coup attempts provide little indication that military elites have become political actors.

Finally, subjective scores measuring the military's influence in politics have been utilized to capture military involvement (Majeed and MacDonald, 2010; Bove and Rivera, 2014; Bove et. al, 2019). The primary variable is drawn from the International Country Risk Guide (ICRG) and

employs a six point scale to measure how influential a country's military might be, with one indicating no influence and six indicating complete influence. This is a stronger option than the regime typology or coup measures, as indicated by its use in Majeed and MacDonald's study on the military's influence in politics and corruption (2010), and Bove and Rivera's study on the military's influence on military spending (2014). Whereas the latter most closely resembles this thesis's purposes albeit I explore the implications into the domain of social spending, this measure also does not differentiate whether the influence is levied in the shadows or directly via political office. Whereas my arguments focus on the military's integration into political decision-making, the ICRG measure is constructed largely by using a number of variables outside of the military's integration into politics, such as size of the military budget (Bove et. al, 2019). This condition renders this measure as inherently biased, as increases in the ordinal scale are impacted by the size of the military budget and cannot effectively explain the nexus between military in politics and the military budget without potentially skewing the results. Though insightful for exploring other relationships relating to the political activity of the military, the ICRG measure is simply inappropriate for this project.

As a result, I draw on the Military Participation in Government (MPG hereafter) dataset to model my expectations and capture the processes of the military's integration in politics (White, 2018). This dataset covers all UN members' national cabinets and the proportion of individuals within government holding an active-military rank. As the number of active-duty officers in the state's national council, relative to the number of overall members of the council, increases<sup>2</sup>, the proportion of the military's involvement is assumed to increase, setting the

---

<sup>2</sup> The leader is excluded in this measure.

parameters between zero and one, with zero representing no military elites in the national cabinet and one indicating all of the cabinet are active military. Furthermore, this measure is an improvement upon the ICRG measure of military influence because of the temporal span; whereas the ICRG's parameters focus between 1984 to 2009, the MPG data captures instances of military involvement between 1964 to 2008, adding about 19 more years' worth of observations. As a result, this dataset allows for granular analysis of the military's institutional role in politics over time and space, and thus fits as the best measure for this project and its arguments.

The main variable of interest is the proportion of the national cabinet as active-duty officers, with no specifications made to whether officers hold security positions such as the Interior Minister or non-security positions such as Health Minister. I employ alternative variables focused on these specifications as robustness checks: the proportion of individuals in security-related positions as active-military, and proportion of individuals in non-security positions as active military. Outside of a simple robustness check, these specifications also aid in comparing the impacts of integration into security and non-security positions on the resource allocation trends. Of particular interest is the interaction between officers in non-security positions and non-security spending; my expectations assume that the officers, even if taking on non-security positions, will place their military identities first and foremost and are more willing to tolerate fewer allocations to their respective sectors so long that the military budget is funded to their standards. Therefore, employing alternative specifications helps unpack all the dynamics of this thesis's argument.

#### **4. Control Variables – Military Spending**

Outlays to the military are likely to be impacted by a number of factors outside of the military's involvement in politics and should be accounted. The most immediate factors to consider relate

to armed conflict – both interstate and intrastate. When a state is engaged in some form of armed conflict, increases to the defense budget are expected. In order to capture instances of armed conflict, I draw on the Correlates of War Interstate War dataset to obtain a binary variable of interstate war, coding 1 if a country-year is experiencing an interstate conflict and 0 if otherwise. For intrastate war, I draw on the Uppsala Peace Research Institute Oslo Armed Conflict dataset (PRIO hereafter) to obtain a binary variable, coding 1 if a country-year is experiencing an intrastate conflict and 0 if otherwise. Military spending also correlate with broader interstate tensions outside of overt conflict. To account for broader security tensions, I include a dummy variable

Outside of conflict, wealth discrepancies and the size of the military are likely to shape allocations to the armed forces. In order to capture conditions related to overall economic development, I employ a logged measure of GDP per capita (Gleditsch, 2002). Size of the military is controlled by the logged number of military personnel in a given country-year, taken from the Correlates of War National Material Capabilities dataset. As the size of the military increases, it is expected that the share of allocations to the armed forces are also likely to increase, therefore necessitating this variable's inclusion.

One important factor to control relates to the military's involvement in politics: the presence of military regimes. Whereas overt military rule is demonstrated to positively correlate with higher military spending (Kim, Kim, Lee 2013; Bove and Brauner, 2011, 2016), my argument focuses on military's presence in politics more broadly. To ensure the findings are not driven by the presence of military rule in the data, I employ a dummy variable capturing military regimes as coded by GWF(2014), which include indirect military rule, collegial military rule,

and personalized military rule<sup>3</sup>. To understand this process across regime types, I also employ a dichotomous measure for democracy as coded by Geddes, Wright, and Frantz's All Political Regimes Dataset (2014). Given that much of the discussion concerning integration of the military into democracies focuses on newer democracies, I include regime age measures taken from CGV (2010) as well as an interaction variable of democracy and age. Considering previous legacies of civil-military relations is also vital to understanding the relationship between government spending and military in politics. For this reason, I generate a duration variable capturing the number of years since a state experienced a coup attempt, taken from Powell and Thyne (2011).

My final control centers on capturing time trends and previous trends of military spending in a given country, by including a one year lag of military spending. Following Carter and Palmer (2015) and Keele and Kelly (2006), dynamic hypotheses occurring over a period of time necessitate the use of lagged variables to capture time trends. History is likely to matter and overall time trends relating to increases or decreases to military spending such as the Cold War or post-Cold War period should be kept constant. In addition, given that one year's defense outlays are likely to correlate with the previous year's outlays, the data is likely to suffer from serial autocorrelation. One way to alleviate concerns relating to time, which could include a Cold War trend, is by the inclusion of the lagged dependent variable (Beck and Katz, 2011). In addition, it also allows a greater illustration of the causal story and mitigates any endogeneity issues. Therefore, I include a one year lag of military spending as share of GDP. I summarize these statistics pertaining to the military spending models below.

---

<sup>3</sup> As a robustness check, I alternate with the CGV measure, which codes military regime based on an autocratic military executive. These results are available upon request.

**Table 1: Descriptive Statistics: Military Spending**

<b>Variables</b>	<b>Observations</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
Military Spending	6,846	2.849114	3.431373	0	117.3498
Officers_In_Office	4,954	.0645279	.1405133	0	1
Officers_Non_Sec	4,953	.0444174	.1354881	0	1
Officers_In_Sec	4,949	.1331053	.2181921	0	1
GDP per Capita (LN)	5,228	8.416883	1.256805	5.03987	13.35703
Interstate War	5,168	.0286378	.1668024	0	1
Civil War	5,205	.1807877	.3848792	0	1
Rivalry	5,307	.4175617	.4932036	0	1
Military Personnel	5,890	3.634216	1.676544	0	8.268732
GWF_Military	5,361	.0859914	.2803775	0	1
Democracy	5,361	.4801343	.4996518	0	1
Yrs. Since Last Coup	8,890	15.95118	12.78694	0	66
Regime Age	5,428	27.00497	28.11217	1	139
Burden (t-1)	6,593	2.863178	3.432018	0	117.3498

## **5. Control Variables – Social Spending/Outcomes**

A number of control variables are necessary to include when modeling the nexus between the military's political involvement and social spending/outcomes. One fundamental issue to address relates to endogeneity issues between the two variables, in that lower social spending/social conditions might prompt the military to seize power in a coup, and the presence of officers in office are the result of such. Previous studies relating to militarization and outcomes such as child mortality rates (e.g., Carlton-Ford, 2019; Bowman, 1996) have not properly considered causality running in reverse and may potentially be suffering from an endogeneity issue. To make sure this analysis does not repeat the same mistake, I draw on a number of variables to alleviate endogeneity and provide robust results. Furthermore, given that IMRs proxy broader social spending, additional controls are necessary to ensure some correlation between IMRs and social spending.

I continue the inclusion of lagged dependent variables, here employing a five and ten year lag of IMRs. Prior legacies of social conditions are accounted for and allow me to parcel out the impact relating military's presence in politics. Five and ten years lag allows for a stronger control of overall conditions a polity may endure prior to integration of the military into power. Given that IMRs are often imputed, the longer span of lags helps ameliorates endogeneity by capturing long standing conditions as opposed to the prior year's conditions. For the education spending models, I employ the one-year lag to capture last year's outlays on education. I also repeat the inclusion of controlling for the presence of military rule, as coded by GWF (2014). In addition to distinguishing the military's involvement from military rule, this dummy variable also allows me to capture whether or not the military seized power because of social conditions. Military regimes are often wrought during these conditions and inherit negative legacies; thus,



the inclusion helps mitigate the endogeneity issue. I continue the use of the binary democracy variable in these models as well.

I also consider the potential influences of regime age, particularly within the context of democracy, and previous iterations of civil-military discontent. In the same vein as the military spending models, I include a measure of regime age as well as an interaction between democracy and age to account for any systemic differences. I continue the use of years since last coup to capture broader legacies of contentious civil-military relations. This measure also allows me to mitigate endogeneity between the military's involvement in politics and social spending/conditions by holding the means of entry for the military constant. As mentioned, the military will often stage coups in times of economic turmoil and thus may inherit negative conditions.

Outside of these tactics, I draw on recent and relevant literature from scholars focusing on Infant Mortality Rates to reduce potential omitted variable bias, which is likely to be higher given the use of IMRs as a proxy for broader social spending (e.g., Noble, 2019; Rosenberg, 2018; Agboola, 2017). Wealth discrepancies are the most immediate factor to control, thus prompting the inclusion of GDP per capita as a control variable. In order to capture the urbanization of a given state, which correlates with development and lower infant mortality rates (e.g., Walddman, 1992), I employ a measure of urban population density from the National Material Capabilities from the Correlates of War. Additionally, I include controls for the status of gender equality to gauge priorities of social spending (Noble, 2019; Van-Malderen et. al, 2019) such as percentage of female enrollment into secondary school as well as overall fertility rate. Percentage of female enrollment is expected to negatively correlate with Infant Mortality Rates whilst fertility rate is expected to positively correlate. IMRs may naturally increase or

decrease due to a number of intervening variables that must be accounted for to better the performance of IMRs as a proxy variable. On the following page, I illustrate my summary statistics pertaining to my social spending/outcome models.

**Table 2: Descriptive Statistics: Social Spending/Outcomes**

<b>Variables</b>	<b>Observations</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
Education Spending	2,239	14.46822	4.894238	.0178	47.27874
IMR	6,696	48.51369	44.74325	1.6	219.3
Officers_In_Office	4,954	.0645279	.1405133	0	1
Officers_Non_Sec	4,953	.0444174	.1354881	0	1
Officers_In_Sec	4,949	.1331053	.2181921	0	1
GDP per Capita (LN)	5,228	8.416883	1.256805	5.03987	13.35703
Interstate War	5,168	.0286378	.1668024	0	1
Civil War	5,205	.1807877	.3848792	0	1
Urban Pop.	6,045	8798.673	29366.34	0	612933
Yrs. Since Last Coup	8,890	15.95118	12.76894	0	44
Education (t-1)	2,205	14.45679	4.882563	.0178	47.27874
GWF_Military	5,361	.0859914	.2803775	0	1
Democracy	5,361	.4801343	.4996518	0	1
Regime Age	5,428	27.00497	28.11217	1	139
IMR (t-5)(t-10)	6,354	52.87395	46.44997	1.9	222.4
Fertility Rate	14,016	4.027791	1.975408	.86	8.864
Percentage of Female Enrollment, Secondary School	7,812	62.55668	34.52462	0	175.2213

The following section contains the results of my empirical analysis. I conduct my analyses across three broad samples: the first being a full sample of democracies and autocracies as coded by Geddes, Wright, and Frantz (2014), the second being a model with democracies held at zero, and the third with autocracies being held at zero. Using this method allows me to analyze how the integration of the armed forces plays into military outlays and public service outlays across a number of contexts, both mixed and specified. As mentioned, all models utilize fixed-effects specifications to mitigate unit-level heterogeneity and reduce biased estimations as a result.

## **CHAPTER FIVE: RESULTS AND ANALYSIS**

### **1. Military Spending Models**

On the following page, I present the results across the full sample of democracies and autocracies, ranging between 1964-2008. Given that data is missing in certain country-years, the panel is unbalanced. I reiterate that all results pertaining to budgetary allocations – particularly military spending – should be considered with caution as the comparability of national budgets is notoriously difficult to establish since different states, leaders, and regimes allocate resources differently even within the military's budget. Though these results may allow for insight into the connection between the armed forces in politics and a state's budgetary output, they do not, by any means, reflect the whole story, given the constraints of data and the secrecy shrouding government spending.

**Table 3: Military Integration and Military Spending as Share of GDP**

Variables	Officers in Office			Officers in Non-Security Roles			Officers In Security Roles		
	1	2	3	4	5	6	7	8	9
Officers In Office	<b>0.543**</b> (0.176)	<b>0.511**</b> (0.184)	<b>0.480*</b> (0.193)						
Officers Non-Sec				<b>0.472*</b> (0.183)	<b>0.460*</b> (0.192)	<b>0.438*</b> (0.204)			
Officers In Sec							<b>0.406**</b> (0.141)	<b>0.380**</b> (0.143)	<b>0.356*</b> (0.139)
GWF_Military	0.195 (0.146)	0.163 (0.139)	0.178 (0.141)	0.204 (0.146)	0.168 (0.139)	0.181 (0.141)	0.240 (0.139)	0.205 (0.134)	0.217 (0.136)
Democracy	0.006 (0.101)	-0.109 (0.113)	0.029 (0.101)	-0.105 (0.101)	-0.103 (0.113)	0.019 (0.101)	0.018 (0.105)	-0.078 (0.107)	0.050 (0.106)
GDP Per Capita	-0.557 (0.450)	-0.469 (0.486)	-0.364 (0.518)	-0.562 (0.451)	-0.472 (0.487)	-0.366 (0.519)	-0.551 (0.449)	-0.463 (0.485)	-0.358 (0.517)
Interstate War	0.546* (0.230)	0.559* (0.228)	0.564* (0.230)	0.543* (0.230)	0.556* (0.228)	0.556* (0.230)	0.553* (0.230)	0.564* (0.229)	0.569* (0.230)
Civil War	0.398** (0.132)	0.367** (0.134)	0.403** (0.127)	0.396*** (0.133)	0.365*** (0.134)	0.402** (0.128)	0.393** (0.131)	0.362** (0.133)	0.399** (0.126)
Rivalry	0.229 (0.158)	0.204 (0.155)	0.161 (0.152)	0.236 (0.157)	0.210 (0.155)	0.166 (0.152)	0.228 (0.157)	0.203 (0.155)	0.161 (0.152)
Military Personnel	-0.074 (0.100)	-0.047 (0.980)	-0.0231 (0.101)	-0.072 (0.100)	-0.046 (0.979)	-0.018 (0.101)	-0.018 (0.100)	-0.055 (0.097)	-0.027 (0.101)
Democracy*Age		-0.005 (0.044)	-0.003 (0.003)		-0.0005 (0.004)	-0.003 (0.003)		-0.005 (0.044)	-0.002 (0.003)
Regime Age		-0.003 (0.007)	0.0009 (0.006)		-0.003 (0.007)	0.0009 (0.006)		-0.003 (0.007)	0.0008 (0.006)
Yrs. Since Last Coup			-0.015** (0.005)			-0.015*** (0.004)			-0.015** (0.005)
Burden(t-1)	0.640*** (0.860)	0.636*** (0.820)	0.631*** (0.078)	0.640*** (0.086)	0.636*** (0.082)	0.631*** (0.077)	0.640*** (0.860)	0.636*** (0.820)	0.631*** (0.077)
Constant	5.806	5.307	5.049	5.857	5.351	5.075	5.754	5.258	5.032
N	<b>4627</b>	<b>4478</b>	<b>4478</b>	<b>4503</b>	<b>4477</b>	<b>4477</b>	<b>4499</b>	<b>4473</b>	<b>4473</b>

Table 3 reports ten models investigating the relationship between the military's integration into politics and military spending as a share of GDP. As mentioned, all models employ a fixed-effects specification to account for country-level heterogeneity as well as robust standard errors, clustered by country. I separate the models based on the specification of military participation in government, with the first set of three models focusing on an indiscriminate measure of active-duty officers in politics. The second and third set focus differentiate on the nature of the occupied roles: the second set focuses on the proportion of officers in non-security positions such as Health Minister whilst the third focuses on the proportion of officers in security positions such as Defense Minister. All models hold military regimes and democracies<sup>4</sup> constant, rendering the excluded category as non-military-ruled autocracies and allow all results from the regime indicators to be relative to the excluded category of regime.

Model 1 presents a baseline category with all the necessary controls and provides support for my first hypothesis. Holding all else equal, including the presence of military regimes and democracies, one unit change in the proportion of officers in office correlates with a 0.5 increase to the military budget as a share of GDP. Furthermore, military regimes – including military-personalists, juntas, and regimes indirectly ruled by the military – return as insignificant across all ten models, supporting the notion that the military need not overtly rule in order to garner greater resources. Similarly, democracy never reaches significance across all models, suggesting that democracies are not statistically distinct from autocracies in defense spending when considering the political role of the military. This is in stark contrast to the significant literature suggesting that democracies yield a demilitarizing effect relative to autocracies; across

---

<sup>4</sup> Military regimes as coded by GWF(2014), with robustness checks utilizing the CGV (2010) measure with little change to the results. Democracies as coded by GWF(2014). Robustness checks utilize Gldestch's use of the Polity IV, i.e. 7 or above coded as a democracy and below 7 coded as otherwise with little change to the results.

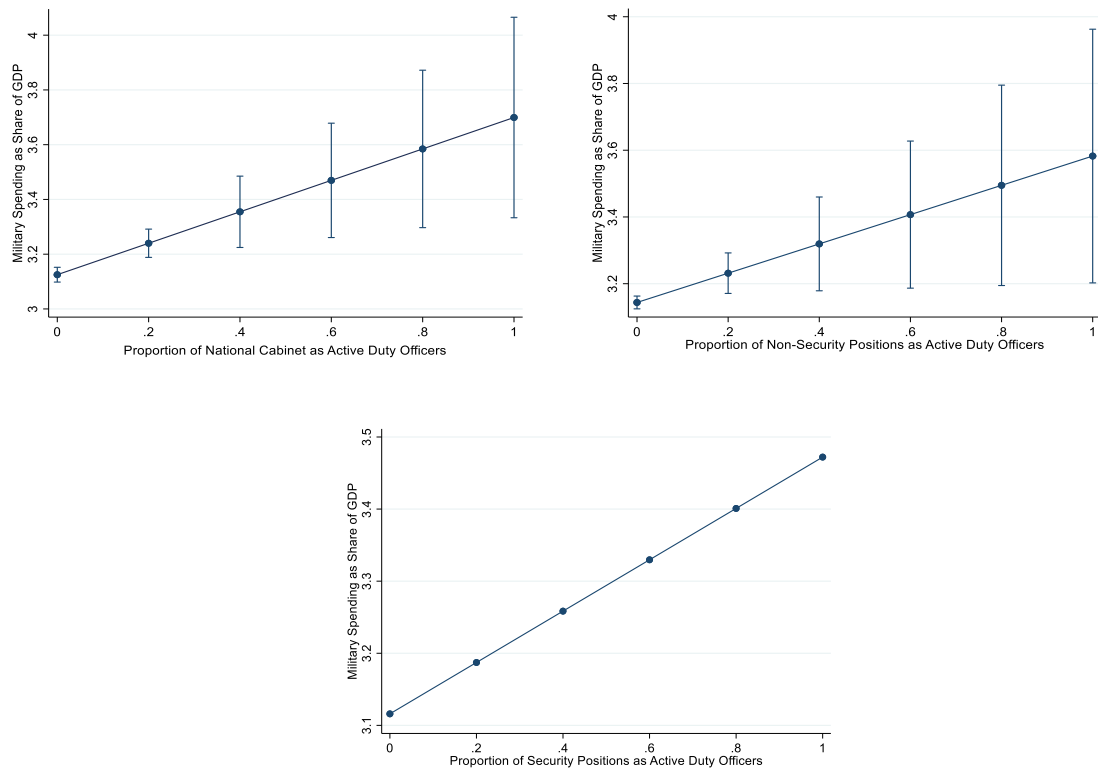
democracies and autocracies, the presence of the military in politics correlates with increases to the resources available. Outside of the regime indicators, other control variables – commonly attested correlates with defense spending – return insignificant such as size of the military and wealth discrepancies. Though the civil war and interstate war dummies are reported as significant, broader security concerns – proxied by an interstate rivalry – do not return as significant. The implications for this result are two-fold: first, interstate rivalries and broader security concerns are often claimed to be precursor to the military's expanded role in government, yet these results suggest that the military may enter politics and acquire greater resources without the need of interstate security concerns. Second, literature focusing on regime type and defense spending argues that the heightened war-proneness of autocracies should lead to greater military outlays relative to democracies (e.g. Fordham and Walker, 2005). However, neither determinant returned as significant in these models whereas the military's presence in politics is robustly correlated with greater defense outlays. This result is consistent with Bove and Nistico (2014) and their investigation of the military's influence in politics and military spending, but whereas their measure – the ICRG measure of military in politics – codes greater military influence if the budget is large and thus is inappropriate to use, the MPG data allow for a greater fine-tuned investigation into this relationship.

Models 2 and 3 consider specific conditional influences on military spending, relating to the consolidation of regime, specifically democracy, and previous iterations of civil-military relations. Given that many of my discussions focus on new democracies transitioning away from regimes in which the military enjoyed political clout and privilege, these indicators help understand how certain conditions exacerbate or mitigate the relationship between government spending and military in politics. Model 2 includes controls for regime consolidation –



indiscriminate between democracy and non-democracy and proxied by regime age— and an interaction between democracy and regime consolidation. Interestingly enough, these aforementioned indicators return insignificant with no change to the significance of the military in politics, suggesting that regime consolidation – in autocracy or democracy – does not significantly mitigate the military’s impact on government spending when included in the government. Significance holds even when accounting for recent coup history or a history of overtly continuous civil-military relations, as indicated in Model 3 with the inclusion of the temporal count variable capturing the number of years since the last coup attempt. Years since last coup attempt holds a negative and significant relationship with defense spending, suggesting that a recent history contentious civil-military relations also correlates with higher defense outlays, even when holding the proportion of officers in political power constant. Ultimately these findings offer support for my first hypothesis, in that as the proportion of military elites in office increases, outlays towards the armed forces increases as well.

Of interest here are the marginal shifts in the proportion of cabinet-level positions as active-duty officers and the predicted values of expenditures at different levels of military involvement. Figure 1 highlights the marginal shifts in military involvement in political power and military spending, based on the full models with conditional influences of regime consolidation and coup history.



**Figure 1: Marginal Impact of Military in Politics on Military Spending as Share of GDP**

As illustrated above, marginal increases of military elites in cabinet positions correlate with higher outlays towards the military budget at every specification of military in politics. When the proportion of military elites in cabinet positions, indiscriminate of security or non-security role, sits at 0, the predicted value of military expenditures sits just above 3.1% of national GDP. As the proportion of cabinet-level positions held by military elites increases by 20%, expenditures are expected to increase just below 0.10%. This trend is expected to continue for every 20% increase of the proportion of officers in office. When the executive cabinet is completely comprised of officers – such as in collegial military rule – expenditures are expected to sit around 3.6% of national GDP. These illustrations support previous studies that suggest military regimes allocate higher levels of allocations to the defense budget, but power-sharing

arrangements with the military outside of overt rule also lead to substantial increases in expenditures, supporting both the theory and expectations of this thesis.

## **2. Social Spending/Conditions Models and Analysis**

The following section moves to consider the nexus between government outlays towards public services and military elites in politics. The expectations here are informed by my second hypothesis – public service funding, relating to health and education, should decrease as the military’s presence in politics increases. Just as military spending faces an issue of comparability, public service funding faces an issue of robust data with a strong temporal and spatial span. In other words, public service spending as well as social outcomes such as Infant Mortality Rates are notorious for missing data across time and space, leading to many values being the products of imputations. For instance, though the temporal span of education spending starts at 1970, the lack of data for a good portion of the world during this time limits this study. I attempt to mitigate these issues by drawing on two measures: education spending as share of GDP and Infant Mortality Rates. For the latter, I model previous trends by employing five and ten year lags of IMRs, allowing me to potentially account for missing and imputed data. As a result, Table 4 presents the Infant Mortality Rate models with 10 year lags integrated whereas Table 5 reruns the same analyses with 5 year lags. For the education spending models, I run the analysis with a one year lag on Table 6. As always, these results are to be considered cautiously given the aforementioned issues.

**Table 4: Military Integration and Infant Mortality Rates: (10 Year Lagged Models)**

Variables	Officers in Office			Officers in Non-Security Roles			Officers In Security Roles		
	11	12	13	14	15	16	17	18	19
<b>Officers In Office</b>	<b>21.82**</b>	<b>10.33*</b>	<b>10.47*</b>						
	<b>(6.980)</b>	<b>(4.475)</b>	<b>(4.458)</b>						
<b>Officers Non-Sec</b>				<b>17.37**</b>	<b>8.843*</b>	<b>8.854*</b>			
				<b>(6.567)</b>	<b>(4.248)</b>	<b>(4.205)</b>			
<b>Officers In Sec</b>							<b>16.94***</b>	<b>8.072**</b>	<b>8.204**</b>
							<b>(4.261)</b>	<b>(2.714)</b>	<b>(2.741)</b>
<b>GWF_Military</b>	-6.745	-3.837	-3.571	-6.600	-3.838	-3.581	-4.319	-2.490	-2.198
	(3.612)	(2.505)	(2.458)	(3.754)	(2.511)	(2.469)	(3.119)	(2.570)	(2.530)
<b>Democracy</b>	-8.246**	-2.980	-2.139	-8.794**	-3.519	-2.402	-7.529*	-2.788	-1.918
	(3.072)	(2.078)	(2.402)	(3.101)	(2.051)	(2.367)	(3.156)	(2.181)	(2.523)
<b>GDP Per Capita</b>	2.940	0.622	0.551	2.867	0.570	0.514	3.248	0.911	0.845
	(3.221)	(1.735)	(1.734)	(3.526)	(1.074)	(1.736)	(3.168)	(1.751)	(1.757)
<b>Interstate War</b>	4.521	3.772	3.666	4.478	3.788	3.687	4.711	3.785	3.676
	(2.67)	(2.730)	(2.739)	(2.671)	(2.740)	(2.754)	(2.736)	(2.768)	(2.779)
<b>Civil War</b>	-2.147	1.183	1.190	-2.281	1.176	1.159	-2.511	0.949	0.956
	(2.889)	(1.445)	(1.478)	(2.867)	(1.442)	(1.476)	(2.858)	(1.415)	(1.445)
<b>Female Education</b>	-0.170*	0.028	0.0270	-0.177*	0.025	0.025	-0.164*	0.609	0.028
	(0.074)	(0.031)	(0.031)	(0.074)	(0.031)	(0.031)	(0.073)	(0.032)	(0.032)
<b>Fertility Rate</b>	12.12***	0.425	0.380	12.11**	0.333	0.282	12.25***	0.029	0.567
	(1.139)	(1.285)	(1.281)	(1.418)	(1.292)	(1.288)	(1.377)	(1.276)	(1.272)
<b>Democracy*Age</b>			0.067			0.006			0.068
			(0.053)			(0.054)			(0.052)
<b>Regime Age</b>			-0.059			-0.006			-0.059
			(0.073)			(0.073)			(0.072)
<b>Urban Pop.</b>	-0.0008	-0.0006	-0.0006	-0.0008	-0.0006	-0.0008	-0.0008	-0.0007	-0.0006
	(0.00006)	(0.0004)	(0.0004)	(0.0006)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
<b>Yrs. Since Last Coup</b>	-0.261*	-0.046	-0.044	-0.261*	-0.045	-0.0402	-0.255*	-0.044	-0.0423
	(0.101)	(0.058)	(0.065)	(0.100)	(0.058)	(0.064)	(0.101)	(0.060)	(0.068)
<b>IMR(t-10)</b>		0.696***	0.700***		0.700***	0.705***		0.696***	0.696***
		(0.059)			(0.059)	(0.058)		(0.058)	(0.057)
<b>Constant</b>	-1.829	7.580	5.049	-3.365	-2.213	-2.856	-8.705	3.554	2.307
<b>N</b>	<b>2847</b>	<b>2372</b>	<b>2365</b>	<b>2846</b>	<b>2372</b>	<b>2365</b>	<b>2462</b>	<b>2372</b>	<b>2365</b>

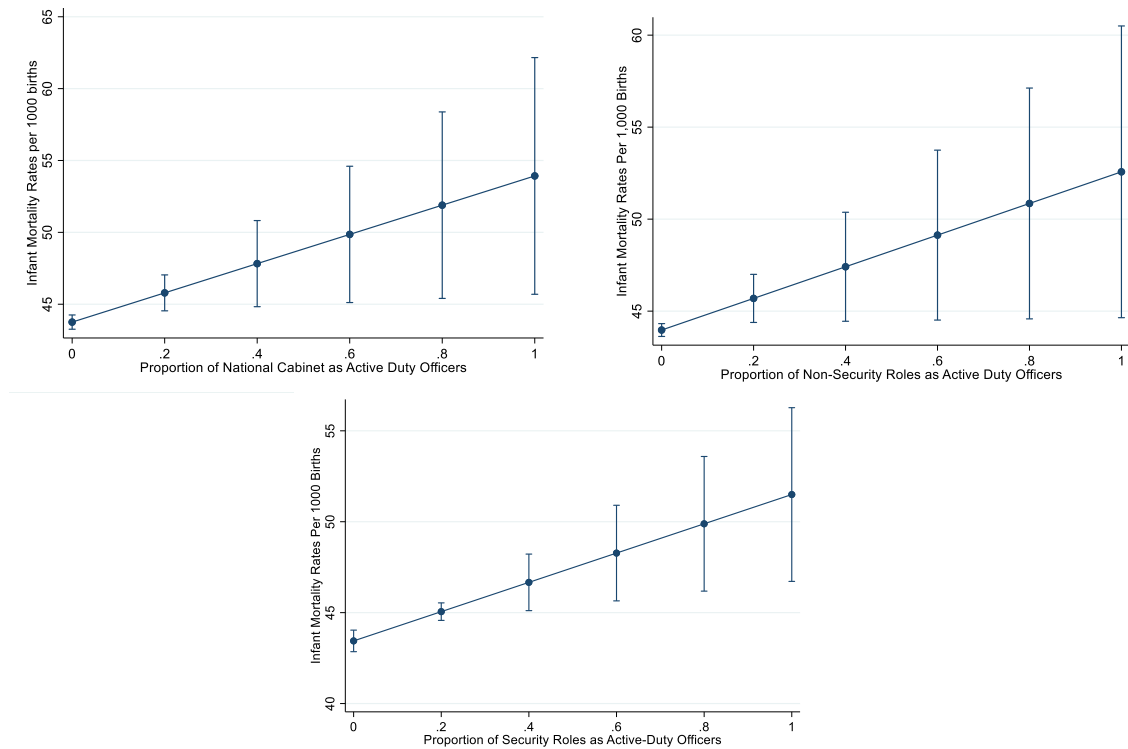
**Table 5: Military Integration and Infant Mortality Rates: (5 Year Lagged Models)**

	Officers in Office			Officers in Non-Security Roles			Officers In Security Roles		
Variables	20	21	22	23	24	25	26	27	28
<b>Officers In Office</b>	<b>21.82**</b> <b>(6.980)</b>	<b>2.228</b> <b>(1.01)</b>	<b>2.459</b> <b>(2.248)</b>						
<b>Officers Non-Sec</b>				<b>17.37**</b> <b>(6.567)</b>	<b>0.838</b> <b>(2.281)</b>	<b>0.930</b> <b>(2.272)</b>			
<b>Officers In Sec</b>							<b>16.94***</b> <b>(4.261)</b>	<b>3.166</b> <b>(1.646)</b>	<b>3.19*</b> <b>(1.632)</b>
<b>GWF_Military</b>	-6.745 (3.612)	1.168 (1.865)	1.820 (1.873)	-6.660 (3.754)	1.893 (1.966)	2.904 (2.272)	-4.319 (3.119)	1.806 (1.774)	2.049 (1.782)
<b>Democracy</b>	-8.426** (3.072)	0.051 (1.392)	0.614 (1.611)	-8.794** (3.101)	-0.037 (1.376)	0.489 (1.596)	-7.624* (3.156)	0.324 (1.456)	0.951 (1.665)
<b>GDP Per Capita</b>	2.940 (3.221)	0.412 (0.865)	0.327 (0.846)	2.868 (3.256)	0.397 (0.874)	0.317 (0.858)	3.248 (3.168)	0.466 (0.846)	0.376 (0.826)
<b>Interstate War</b>	4.521 (2.67)	0.929 (0.945)	0.907 (0.923)	4.478 (2.671)	0.925 (0.925)	0.903 (0.932)	4.711 (2.736)	0.989 (0.954)	0.967 (0.932)
<b>Civil War</b>	-2.147 (2.889)	1.151 (0.883)	1.249 (0.878)	-2.281 (2.867)	1.107 (0.878)	1.196 (0.874)	-2.511 (2.858)	1.067 (0.879)	1.172 (0.873)
<b>Female Education</b>	-0.170* (0.074)	0.045* (0.021)	0.041 (0.022)	-0.178* (0.074)	0.210 (0.219)	0.137 (0.022)	-0.164* (0.073)	0.045* (0.021)	0.041 (0.022)
<b>Fertility Rate</b>	11.90*** (1.139)	-0.769 (0.609)	-0.757 (0.607)	12.11*** (1.148)	-0.794 (0.608)	-0.784 (0.607)	12.25*** ( 1.377)	-0.736 (0.613)	-0.720 (0.612)
<b>Democracy*Age</b>			0.018 (0.032)			0.0178 (0.033)			-0.020 (0.320)
<b>Regime Age</b>			0.0009 (0.045)			0.008 (0.046)			0.010 (0.045)
<b>Urban Pop.</b>	-0.0008 (0.0006)	-0.0003*** (9.92e-06)	-0.0003*** (9.92e-06)	-0.0008 (0.0006)	-0.00003*** (0.0006)	-0.00003*** (0.0006)	0.0008*** (0.0006)	-0.0003*** (9.92e-06)	-0.00003*** (9.92e-06)
<b>Yrs. Since Last Coup</b>	-0.261* (0.101)	-0.016 (0.034)	-0.023 (0.040)	-0.261* (0.100)	-0.0142 (0.034)	-0.0253 (0.040)	-0.255* (0.101)	-0.0177 (0.0341)	-0.031 (0.040)
<b>IMR(t-5)</b>		-0.917*** (0.027)	0.918*** (0.027)		0.636*** (0.027)	0.921*** (0.027)		0.912*** (0.027)	0.914*** (0.027)
<b>Constant</b>	-4.688	7.580	5.049	5.857	5.351	-6.049	-6.684	-6.756	-7.052
<b>N</b>	<b>2847</b>	<b>2812</b>	<b>2798</b>	<b>2846</b>	<b>2812</b>	<b>2797</b>	<b>2844</b>	<b>2809</b>	<b>2795</b>

Table 5 offers support for my second hypothesis and my expectations, but Table 6 does not. I begin with Table 5. Each specification of military in politics begins with a baseline model including the relevant factors associated with Infant Mortality Rates such as fertility rates and rate of female enrollment into secondary school, urbanization, and war. I also include the regime indicators for military regime and democracy, rendering the excluded category as non-military regimes, as well as the indicator for time since last coup to mitigate the endogeneity issue. Across all three specifications at the baseline, the military's integration in politics is correlated with higher Infant Mortality Rates. Prior to the inclusion of lagged variables, in Models 11, 14, and 17, the control variables also yield some notable trends. For instance, prior to controlling to previous legacies of Infant Mortality Rates, democracy returns as significant as well as years since last coup. This suggest that a potential "democratizing effect" mitigates the relationship between IMRs and the military in politics while having a more prominent effect in the aftermath of a coup. Interestingly enough, when accounting for previous trends of IMRs, both democracy and the impact of history lose significance whilst the role of the military in politics remains significant. In fact, female education, fertility rates, and urbanization – commonly used determinants for IMRs – lose significance when considering previous levels of IMRs. This trend continues even when accounting for the conditional impact of regime consolidation and democratic consolidation – the inclusion of officers in politics continues to correlate with higher IMRs. Specifically, the correlation is most discernible when the military occupies security ranks within government, a trend mirrored in the military spending models.

The military's presence in politics only correlates with IMRs in Model 28 when including a five-year lag for IMRs. Whereas the non-security specification and the indiscriminate measure for military in politics do not hold significant when capturing IMRs five years prior, the security specification becomes significant when holding aged democracies and regime age constant in conjunction with the five year lag. This loss of significance may largely be due to the lagged dependent variable's domination of the models, as evidenced through the loss of significance of commonly used determinants such as fertility rates and female enrollment.

Following the same method in the military spending models, Figure 4 illustrates the marginal impact of military involvement across all three specifications against Infant Mortality Rates per 1,000 deaths. These illustrations are composed of the full IMR models including 10 year lags, and the conditional impacts of regime age and consolidated democracies, though these conditionalities do not yield significance.



**Figure 2: Marginal Impact of Military in Politics on Infant Mortality Rates, Per 1,000 Births**

Marginal increases to the proportion of cabinet positions held by the armed forces correlate with predicted marginal increases to Infant Mortality Rates per 1,000 births across all specifications of military in politics. Cases which see an absence of a military presence in politics are predicted to have roughly a rate of 42-43 infant deaths per 1,000 births. A 20% increase to the proportion of national cabinet seats held by the armed forces is predicted to yield an additional 2-3 deaths per 1,000 births. This trend is expected to continue across all specifications of military participation in government. Once again, these predicted values illustrate how the introduction of the military into the governing sphere potentially shifts spending priorities away from health services and incurs a steep health cost, even when holding other salient factors relating to IMRs constant.

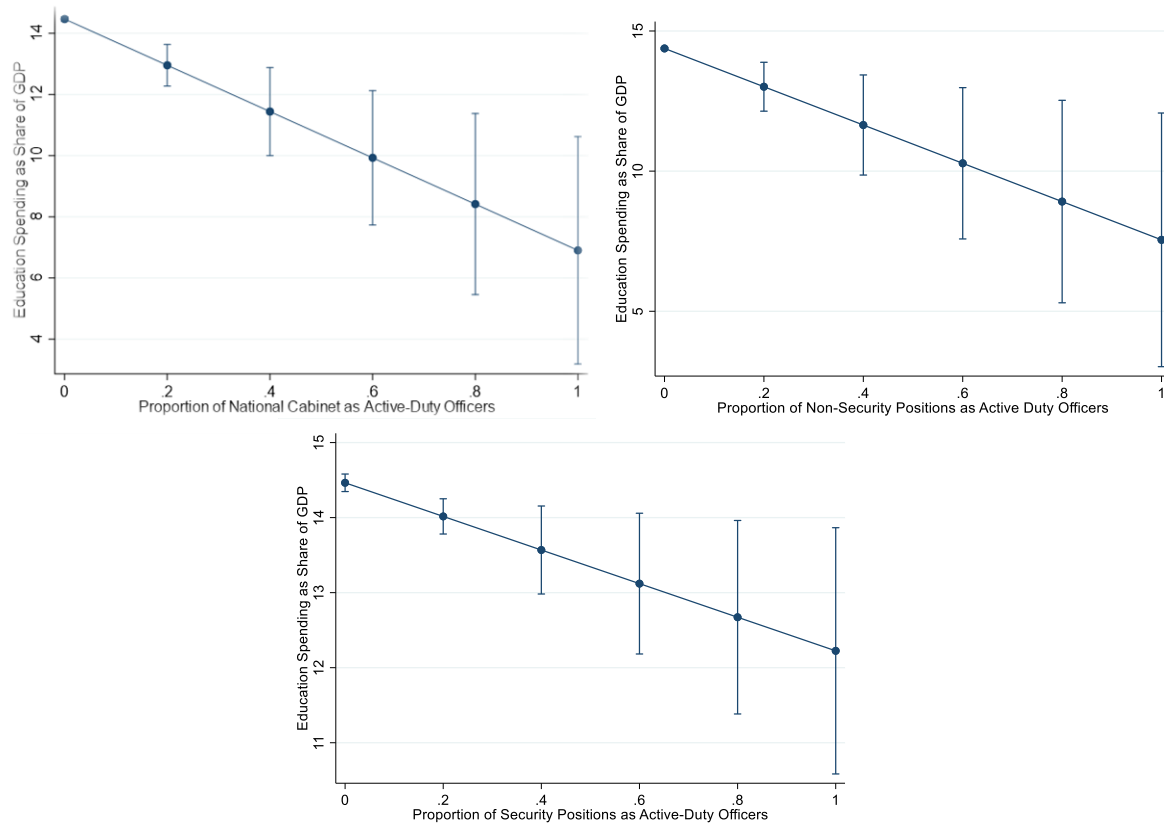


**Table 6: Military Integration and Education Spending as Share of GDP**

	Officers in Office			Officers in Non Security Roles			Officers In Security Roles		
Variables	29	30	31	32	33	34	35	36	37
<b>Officers In Office</b>	<b>-8.443***</b> (2.171)	<b>-8.285***</b> (2.169)	<b>-7.568***</b> (1.937)						
<b>Officers Non Sec</b>				<b>-7.664**</b> (2.514)	<b>-7.335**</b> (2.461)	<b>-6.828**</b> (2.329)			
<b>Officers In Sec</b>							<b>-2.596**</b> (0.902)	<b>-2.586**</b> (0.917)	<b>-2.239*</b> (0.966)
<b>GWF_Military</b>	-0.877 (0.934)	-0.722 (0.924)	-0.477 (0.872)	-0.986 (0.995)	-0.808 (0.977)	-0.546 (0.912)	-1.023 (1.042)	-0.839 (1.020)	-0.593 (0.952)
<b>Democracy</b>	0.678 (0.600)	0.852 (0.605)	0.450 (0.630)	0.699 (0.633)	0.874 (0.636)	0.454 (0.654)	0.835 (0.587)	1.033 (0.588)	0.620 (0.633)
<b>GDP Per Capita</b>	0.067 (0.394)	-0.163 (0.434)	-1.199 (0.613)	0.071 (0.403)	-0.169 (0.456)	-1.229 (0.628)	0.036 (0.401)	-0.259 (0.440)	-1.289* (0.630)
<b>Interstate War</b>	0.198 (0.649)	0.187 (0.652)	0.111 (0.701)	0.174 (0.655)	0.163 (0.659)	0.008 (0.709)	0.160 (0.680)	0.147 (0.684)	0.071 (0.733)
<b>Civil War</b>	-0.108 (0.368)	-0.059 (0.366)	-0.093 (0.369)	-0.108 (0.376)	-0.563 (0.373)	-0.091 (0.375)	-0.168 (0.390)	-0.103 (0.383)	-0.133 (0.394)
<b>Urban Pop.</b>	-0.0008*** (2.60e-06)	-0.00001*** (2.30e-06)	-0.0002*** (2.95e-06)	0.00002*** (2.643-06)	0.0002*** (2.32e-06)	-0.0002*** (2.93e-06)	-0.00002*** (2.62e-06)	-0.0002*** (2.62e06)	-0.0002*** (2.88e-06)
<b>Democracy*Age</b>		0.109 (0.010)	0.0153 (0.011)		0.014 (0.010)	-0.018 (0.011)		0.009 (0.009)	-0.035 (0.010)
<b>Regime Age</b>		-0.0007 (0.018)	-0.039 (0.025)		-0.003 (0.018)	-0.043 (0.025)		0.004 (0.018)	0.014 (0.010)
<b>Yrs. Since Last Coup</b>			0.0854** (0.031)			0.087** (0.031)			0.085** (0.031)
<b>Education(t-1)</b>	0.572*** (0.060)	0.570*** (0.060)	0.487*** (0.059)	0.578*** (0.059)	0.577*** (0.060)	0.551*** (0.059)	0.574*** (0.060)	0.572*** (0.061)	0.572*** (0.060)
<b>Constant</b>	5.433	6.906	5.049	5.217	5.351	5.075	5.754	5.258	5.032
<b>N</b>	<b>1025</b>	<b>1019</b>	<b>1019</b>	<b>1025</b>	<b>1019</b>	<b>1019</b>	<b>1025</b>	<b>1019</b>	<b>1019</b>

Table 7 yields results consistent with my expectations and adds further support to my second hypothesis. The baseline models, Models 29, 32, and 35, begin with omitting the temporal coup variable and the conditional age variables but include the lagged dependent variable, similar to the military spending models. Each baseline model yields a discernible, negative relationship between military in politics and government resources allocated to the education sector, suggesting that as the military's presence in politics increases, education spending decreases even when considering the prior year's spending. Across all models, this relationship is not mitigated by a democratizing effect, even when adding specifying the consolidation of democracies. Similar to the results presented in Table 3-5, the military regime dummy consistently fails to reach significance.

The failure of consolidated democracies to reach significance across all models seems to suggest that the military may be able to levy for resources at the expense of other government resources, indiscriminate of regime age, democratic or otherwise. This trend is consistent with the military spending and IMR models as well. Although I did not explicitly hypothesize the supposed insulating feature of consolidated democracies, my theoretical expectations highlighted the role of the military in democracies as most influential during the regime's infantile years. However, these results suggest such militarization and the formalized role of the military in politics may persist as influential even as democracies age.



**Figure 3: Marginal Impact of Military in Politics on Education Spending as Share of GDP**

Figure 3 illustrates the predicted values of education expenditures at different marginal levels of military involvement in politics. Absent of any military involvement in the national cabinet, expenditures are expected to sit just above 14% of national GDP. When 20% of the national cabinet is held by military elites, indiscriminate of security or non-security positions, expenditures are expected to drop down to just above 12% of national GDP. This trend appears to hold when specifying military elites in non-security positions, which predicts expenditures at roughly 11% when the proportion of the cabinet as active-duty rises to 40%. When specifying military elites in security positions, the marginal shifts are less pronounced. When the proportion of security roles held by the armed forces sit at 20%, expenditures are expected to sit at 14% and only drop to 13% when military in security positions rises to 60%. In sum, these findings suggest

that marginal increases to the military's formal role in decision-making negatively correlates with education spending outside of overtly controlling the government.

This section concludes my empirical investigation of power-sharing with military elites and broader integration of the armed into government with government spending trends. To reiterate the main findings, all specifications of the military's integration into government positively correlate with higher defense outlays. Even when holding any intervening impacts of regime type such as democracy constant, the trend remains robust. Further, contrary to the assumption that the consolidation of democracy may mitigate the military's influence, these findings suggest military elites are still able to influence policy in their favor when brought into government in a democratic context, young or old. Across all models, military regimes do not reach significance, highlighting the relationship between the military in politics and military outlays stretches beyond overt domination of the state. Consistent with my expectations, all specifications of military in politics correlated with higher Infant Mortality Rates as well as education spending, signaling the shift in government priorities when military elites occupy political power. Again, regime type and consolidation of democracy fail to intervene as confounding variables, consistent with their behavior in the military spending models. Save for the five-year lag of Infant Mortality Rates, it should be noted that the lagged dependent variables did not impede the significance of military involvement in politics, attesting to the robustness of the results.

## **CHAPTER SIX: CONCLUDING REMARKS AND IMPLICATIONS**

### **1. Summarization and Implications**

This thesis serves as an exploration of the nexus between the military's integration into political power and government spending across democracies and non-democracies. I argue that given that military elites have stronger incentives to prioritize "guns" over "butter" relative to their civilian counterparts, I expect that as the military is integrated into political power, military spending should increase and outlays relating to public services should decrease. I frame this process within a broader dynamic of leader bargaining with the armed forces in order to establish greater commitment and ensure the military's loyalty, indiscriminate of regime type.

Authoritarian leaders have a number of tools to preemptively ensure the military's loyalty and backing to their regimes such as purging, side-payments, etc. and integrating them into the government is among these tactics as power-sharing institutions increase transparency between actors and reduces the probability of misconception (e.g., Boix and Svolik, 2013; White, 2019).

On the other hand, democratic leaders cannot take preemptive measures to placate the armed forces through extra-legal means. Specifically, in newer democracies facing the potential for contentious civil-military relations, one potential path to legally placate the armed forces is by integrating officers into politics and cede some form of political power. My expectations assume both paths to lead to greater military outlays and fewer outlays towards social services.

Utilizing data capturing the proportion of national cabinet positions held by active-duty officers, I find results supporting my expectations, even when holding the presence of military regimes, democracy, and consolidation constant. Specifically, these results also suggest that this process is somewhat exacerbated in countries with recent coup histories, thus increasing the need for leaders to make political concessions to the armed forces, which yields the specific spending

trends discussed in this thesis. However, a number of shortcomings plague this analysis. For one, the social spending indicators suffer from a great deal of missing data. I attempt to mitigate this issue by employing robustness checks, alternating the measure of dependent variable, proxying outlays relating to health with Infant Mortality Rates. As greater data becomes available, this study should be revisited to gauge if the trends still sustain across a larger time frame.

In addition, it is possible that additional confounding variables exist that may explain greater military spending and less social spending. Specifically, the overall militarization of society may cause both the integration of the armed forces into politics and a “guns vs. butter” spending trend. Despite the difficulty of measuring such a concept, future research should consider the role of a militarized culture in government spending trends. One potential means to do so is through an extensive case study. However, this study has also reiterated the need for fine-tuned data to explore civil-military processes outside of crude regime indicators and should inspire for greater use of such data.

Some potential policy implications may be drawn from this study as well. Governments attempting to bargain with the military by offering military elites a privileged position in politics should understand the potential implications towards their budgets. In the context of new democracies, this process may set the new government at odds with the general public. Given that public goods provision is often considered a strong by-product of democratic governance (Bueno De Mesquita et. al, 2003), the integration of the armed forces into politics and its budgetary consequences could lead to the loss of legitimacy in the eyes of the public and damage the democratic process.

## LIST OF REFERENCES

- Acemoglu, D., Ticchi, D., & Vindigni, A. (2010). A theory of military dictatorships. *American Economic Journal: Macroeconomics*, 2(1), 1-42.
- Agüero, F. (1998). Legacies of transitions: Institutionalization, the military, and democracy in South America. *Mershon International Studies Review*, 42(Supplement\_2), 383-404.
- Albrecht, H., & Eibl, F. (2018). How to keep officers in the barracks: causes, agents, and types of military coups. *International Studies Quarterly*, 62(2), 315-328.
- Ali, H. E., & Adan, U. A. (2017). Conflict types and child and infant mortality rates: Evidence from panel data. In *Political and Military Sociology* (pp. 137-162). Routledge.
- Ali, H. E. (2011). Military expenditures and human development: Guns and butter arguments revisited: A case study from Egypt. *Peace economics, peace science and public policy*, 17(1).
- Beck, N. (2001). Time-series–cross-section data: What have we learned in the past few years?. *Annual review of political science*, 4(1), 271-293.
- Beck, N., & Katz, J. N. (2011). Modeling dynamics in time-series–cross-section political economy data. *Annual Review of Political Science*, 14, 331-352.
- Belkin, A., & Schofer, E. (2003). Toward a structural understanding of coup risk. *Journal of Conflict Resolution*, 47(5), 594-620.
- Belkin, A., & Schofer, E. (2005). Coup risk, counterbalancing, and international conflict. *Security Studies*, 14(1), 140-
- Bell, C. (2016). Coup d'état and democracy. *Comparative Political Studies*, 49(9), 1167-1200.
- Bienen, H., & Moore, J. (1987). The Sudan: Military Economic Corporations. *Armed Forces & Society*, 13(4), 489-516.

- Boix, C., & Svolik, M. W. (2013). The foundations of limited authoritarian government: Institutions, commitment, and power-sharing in dictatorships. *The Journal of Politics*, 75(2), 300-316.
- Boutton, A. (2019). Coup-proofing in the shadow of intervention: Alliances, moral hazard, and violence in authoritarian regimes. *International Studies Quarterly*, 63(1), 43-57.
- Bove, V. and Brauner, J. (2011). The demand for military expenditure in authoritarian regimes. Birkbeck Working Papers in Economics and Finance (1106).
- Bove, V., & Brauner, J. (2016). The demand for military expenditure in authoritarian regimes. *Defence and peace economics*, 27(5), 609-625.
- Bove, V., & Nistico, R. (2014). Coups d'état and defense spending: a counterfactual analysis. *Public Choice*, 161(3-4), 321-344.
- Bove, V., & Nistico, R. (2014). Military in politics and budgetary allocations. *Journal of Comparative Economics*, 42(4), 1065-1078.
- Bove, V., Rivera, M., & Ruffa, C. (2019). Beyond coups: terrorism and military involvement in politics. *European Journal of International Relations*.
- Bowman, K. S. (1996). Taming the tiger: Militarization and democracy in Latin America. *Journal of Peace Research*, 33(3), 289-308.
- Braithwaite, J. M., & Sudduth, J. K. (2016). Military purges and the recurrence of civil conflict. *Research & Politics*, 3(1), 2053168016630730.
- Brauner, J. (2015). Military spending and democracy. *Defence and Peace Economics*, 26(4), 409-423.
- Cameron, A. C., & Trivedi, P. K. (2005). *Microeconometrics: methods and applications*. Cambridge university press.



Carlton-Ford, S. (2004). Armed conflict and children's life chances. *Peace Review*, 16(2), 185-191

Carlton-Ford, S. (2011). Praetorian militarization and children's life chances. *The Well-Being, Peer Cultures and Rights of Children*, 14, 3-26.

Carlton-Ford, S., Durante, K. A., Evans, T. D., & Graham, C. (2019). Guns and butter: Child mortality and the mediators of militarization. *Armed Forces & Society*, 45(1), 177-197.

Carter, J. (2011). Butter, Guns and Money: Leadership Survival and Government Spending in Democratic and Autocratic Regimes. Working Paper.

Carter, J., & Palmer, G. (2015). Keeping the schools open while the troops are away: Regime type, interstate war, and government spending. *International Studies Quarterly*, 59(1), 145-157.

Carter, J. (2017). The Political Cost of War Mobilization in Democracies and Dictatorships. *Journal of Conflict Resolution*, 61(8), 1768-1794.

Cheibub, J. A. (2007). *Presidentialism, parliamentarism, and democracy*. Cambridge University Press.

Cheibub, J. A., Gandhi, J., & Vreeland, J. R. (2010). Democracy and dictatorship revisited. *Public choice*, 143(1-2), 67-101.

Collier, P., & Hoeffler, A. (2006). Grand extortion: coup risk and the military as a protection racket. Working Paper.

Collier, P., & Hoeffler, A. (2007). Military spending and the risks of coups d'etats. Working Paper.

Connely, P., & Perlman, H. R. (1975). The Politics of Scarcity. *Resource Conflicts in International Relations*.

- Cook, S. A. (2007). *Ruling but not governing: The military and political development in Egypt, Algeria, and Turkey*. JHU Press.
- Coutts, A., Daoud, A., Fakih, A., Marrouch, W., & Reinsberg, B. (2019). Guns and butter? Military expenditure and health spending on the eve of the Arab Spring. *Defence and Peace Economics*, 30(2), 227-237.
- Davenport, C. (2007). State repression and political order. *Annu. Rev. Polit. Sci.*, 10, 1-23.
- Daoud, A. (2011). *Scarcity, abundance and sufficiency: Contributions to social and economic theory*. Department of Sociology; Sociologiska institutionen.
- De Bruin, E. (2018). Preventing coups d'état: How counterbalancing works. *Journal of Conflict Resolution*, 62(7), 1433-1458.
- De Mesquita, B. B., Morrow, J. D., Siverson, R. M., & Smith, A. (1999). Policy failure and political survival: The contribution of political institutions. *Journal of Conflict Resolution*, 43(2), 147-161.
- De Mesquita, B. B., Smith, A., Morrow, J. D., & Siverson, R. M. (2005). *The logic of political survival*. MIT press.
- De Mesquita, B. B., & Smith, A. (2011). *The dictator's handbook: why bad behavior is almost always good politics*. Public Affairs.
- De Mesquita, B. B., & Smith, A. (2015). Tanzania's economic and political performance: A district-level test of selectorate theory. In *Politics in South Asia* (pp. 31-48). Springer, Cham.
- Domke, W. K., Eichenberg, R. C., & Kelleher, C. M. (1983). The illusion of choice: Defense and welfare in advanced industrial democracies, 1948-1978. *American Political Science Review*, 77(1), 19-35.

- Downs, A. (1957). *An economic theory of democracy*. Harper and Row.
- Dunne, P., & Perlo-Freeman, S. (2003). The demand for military spending in developing countries. *International Review of Applied Economics*, 17(1), 23-48.
- Dunne, J. P., Smith, R. P., & Willenbockel, D. (2005). Models of military expenditure and growth: A critical review. *Defence and peace economics*, 16(6), 449-461.
- Easton, M. R., & Siverson, R. M. (2018). Leader survival and purges after a failed coup d'état. *Journal of Peace Research*, 55(5), 596-608.
- Enloe, C. H. (1975). The military uses of ethnicity. *Millennium*, 4(3), 220-234.
- Fan, H., Liu, W., & Coyte, P. C. (2018). Do military expenditures crowd-out health expenditures? Evidence from around the world, 2000–2013. *Defence and Peace Economics*, 29(7), 766-779.
- Fearon, J. D. (1995). Rationalist explanations for war. *International organization*, 49(3), 379-414.
- Feaver, P. D. (1992). Guarding the guardians: Civilian control of nuclear weapons in the United States.
- Feaver, P. D. (1996). The civil-military problematique: Huntington, Janowitz, and the question of civilian control. *Armed Forces & Society*, 23(2), 149-178.
- Finer, S. (1962). *The man on horseback: The role of the military in politics*. Routledge.
- Fordham, B. O., & Walker, T. C. (2005). Kantian liberalism, regime type, and military resource allocation: Do democracies spend less?. *International Studies Quarterly*, 49(1), 141-157.
- Frantz, E., & Ezrow, N. M. (2011). *The politics of dictatorship: Institutions and outcomes in authoritarian regimes*. Boulder, CO: Lynne Rienner Publishers.

- Frantz, E., & Kendall-Taylor, A. (2014). A dictator's toolkit: Understanding how co-optation affects repression in autocracies. *Journal of Peace Research*, 51(3), 332-346.
- Frederiksen, P. C., & Looney, R. E. (1994). Budgetary consequences of defense expenditures in Pakistan: Short-run impacts and long-run adjustments. *Journal of Peace Research*, 31(1), 11-18.
- Gaub, F. (2013). The Libyan armed forces between coup-proofing and repression. *Journal of Strategic Studies*, 36(2), 221-244.
- Gaub, F. (2019). Like father like son: Libyan civil–military relations before and after 2011. *Mediterranean Politics*, 24(2), 181-195.
- Geddes, B. (1999). What do we know about democratization after twenty years?. *Annual review of political science*, 2(1), 115-144.
- Geddes, B., Wright, J., & Frantz, E. (2014). Autocratic breakdown and regime transitions: A new data set. *Perspectives on Politics*, 12(2), 313-331.
- Girke, P., & Kamp, M. (2011). Museveni's Uganda: Eternal subscription for power. *Konrad Adenauer Stiftung Int. Rep*, 5, 49-71.
- Gleditsch, K. S. (2002). Expanded trade and GDP data. *Journal of Conflict Resolution*, 46(5), 712-724.
- Goldsmith, B. E. (2003). Bearing the Defense Burden, 1886-1989: Why Spend More?. *Journal of Conflict Resolution*, 47(5), 551-573.
- Grewal, S. (2016). A quiet revolution: The Tunisian military after Ben Ali. *Carnegie Middle East Center*.
- Haber, S. (2006). Authoritarian government. In *The Oxford handbook of political economy*.

- Haggard, S., & Kaufman, R. R. (2008). *Development, democracy, and welfare states: Latin America, East Asia, and eastern Europe*. Princeton University Press.
- Harris, G., Kelly, M., & Pranowo. (1988). Trade-offs between defence and education/health expenditures in developing countries. *Journal of Peace Research*, 25(2), 165-177.
- Hashim, A. (2003). Saddam Husayn and civil-military relations in Iraq: The quest for legitimacy and power. *The Middle East Journal*, 9-41.
- Hernandez, C. G. (1985). The Philippine military and civilian control: Under Marcos and beyond. *Third World Quarterly*, 7(4), 907-923.
- Horowitz, D. L. (1985). *Ethnic groups in conflict, updated edition with a new preface*. Univ of California Press.
- Horowitz, M. C., & Stam, A. C. (2014). How prior military experience influences the future militarized behavior of leaders. *International Organization*, 68(3), 527-559.
- Huntington, S. P. (1991). Democracy's third wave. *Journal of democracy*, 2(2), 12-34.
- Huntington, S. P. (1957). *The Soldier and the State: The Theory and Politics of Civil-Military Relations*.
- Kawaura, A. (2018). Generals in defense of allocation: Coups and military budgets in Thailand. *Journal of asian economics*, 58, 72-78.
- Keele, L., & Kelly, N. J. (2006). Dynamic models for dynamic theories: The ins and outs of lagged dependent variables. *Political analysis*, 14(2), 186-205.
- Kenwick, M. (2017). *Self-Reinforcing Civilian Control: A Measurement-Based Analysis of Civil-Military Relations*. Working Paper.
- Kim, H. C., Kim, H. M., & Lee, J. (2013). The post-coup military spending question revisited, 1960–2000. *International Interactions*, 39(3), 367-385.

- Lake, D. A., & Baum, M. A. (2001). The invisible hand of democracy: political control and the provision of public services. *Comparative political studies*, 34(6), 587-621.
- Lim, R. (2011). Civil–Military Relations in Marcos’ Philippines. *CESRAN Papers*, 2.
- Lin, E. S., Ali, H. E., & Lu, Y. L. (2015). Does military spending crowd out social welfare expenditures? Evidence from a panel of OECD countries. *Defence and Peace Economics*, 26(1), 33-48.
- Little, A. T. (2017). Coordination, learning, and coups. *Journal of Conflict Resolution*, 61(1), 204-234.
- Majeed, M. T., & Macdonald, R. (2010). Corruption and the military in politics: theory and evidence from around the World.
- McMahon, R. B., & Slantchev, B. L. (2015). The guardianship dilemma: Regime security through and from the armed forces. *American Political Science Review*, 109(2), 297-313.
- Mietzner, M. (2006). The politics of military reform in post-Suharto Indonesia: Elite conflict, nationalism, and institutional resistance.
- Mintz, A. (1989). Guns versus butter: A disaggregated analysis. *American Political Science Review*, 83(4), 1285-1293.
- Nordlinger, E. A. (1977). *Soldiers in politics: military coups and governments*. Prentice Hall.
- Perlmutter, A. (1969). The praetorian state and the praetorian army: Toward a taxonomy of civil-military relations in developing polities. *Comparative Politics*, 1(3), 382-404.
- Pilster, U., & Böhmelt, T. (2011). Coup-proofing and military effectiveness in interstate wars, 1967–99. *Conflict Management and Peace Science*, 28(4), 331-350.

- Pilster, U., & Böhmelt, T. (2012). Do Democracies Engage Less in Coup-Proofing? On the Relationship between Regime Type and Civil—Military Relations. *Foreign Policy Analysis*, 8(4), 355-371.
- Powell, J. M., & Thyne, C. L. (2011). Global instances of coups from 1950 to 2010: A new dataset. *Journal of Peace Research*, 48(2), 249-259.
- Powell, J. (2012). Determinants of the Attempting and Outcome of Coups d'état. *Journal of Conflict Resolution*, 56(6), 1017-1040.
- Powell, J., Faulkner, C., Dean, W., & Romano, K. (2018). Give them toys? Military allocations and regime stability in transitional democracies. *Democratization*, 25(7), 1153-1172.
- Powell, J. (2019). Leader survival strategies and the onset of civil conflict: A coup-proofing paradox. *Armed Forces & Society*, 45(1), 27-44.
- Quinlivan, J. T. (1999). Coup-proofing: Its practice and consequences in the Middle East. *International Security*, 24(2), 131-165.
- Rahman, M. M., Khanam, R., & Rahman, M. (2018). Health care expenditure and health outcome nexus: new evidence from the SAARC-ASEAN region. *Globalization and health*, 14(1), 113.
- Roessler, P. (2016). *Ethnic politics and state power in Africa: the logic of the coup-civil war trap*. Cambridge University Press.
- Russett, B. M. (1969). Who pays for defense?. *American Political Science Review*, 63(2), 412-426.
- Saul, J. S. (1976). The Unsteady State: Uganda, Obote and General Amin. *Review of African Political Economy*, 3(5), 12-38.

- Selochan, V. (1991). The armed forces of the Philippines and political instability. *The Military, State, and Development in Asia and the Pacific*, 83-121.
- Stockholm International Peace Research Institute. (2017). SIPRI Military Expenditure Database.
- Sudduth, J. K. (2017). Strategic logic of elite purges in dictatorships. *Comparative Political Studies*, 50(13), 1768-1801.
- Sudduth, J. K. (2017). Coup risk, coup-proofing and leader survival. *Journal of Peace Research*, 54(1), 3-15.
- Sudduth, J. K., & Bell, C. (2018). The rise predicts the fall: how the method of leader entry affects the method of leader removal in dictatorships. *International Studies Quarterly*, 62(1), 145-159.
- Svolik, M. W. (2009). Power sharing and leadership dynamics in authoritarian regimes. *American Journal of Political Science*, 53(2), 477-494.
- Svolik, M. W. (2012). *The politics of authoritarian rule*. Cambridge University Press.
- Svolik, M. W. (2013). Contracting on violence: The moral hazard in authoritarian repression and military intervention in politics. *Journal of Conflict Resolution*, 57(5), 765-794.
- Talmadge, C. (2013). The puzzle of personalist performance: Iraqi battlefield effectiveness in the Iran-Iraq war. *Security Studies*, 22(2), 180-221.
- Tian, N., & Silva D. (2019) The crucial role of the military in the Venezuelan Crisis. Stockholm International Peace Research Institute.
- Tullock, G. (2003). The origin rent-seeking concept. *International Journal of Business and Economics*, 2(1), 1.
- Tullock, G. (1987). *Autocracy*. Springer Science & Business Media.



- Wang, Y. (2014). Guns–butter tradeoff in contemporary China. *Defense & Security Analysis*, 30(1), 67-75.
- Weeks, J. L. (2008). Autocratic audience costs: Regime type and signaling resolve. *International Organization*, 62(1), 35-64.
- White, P. B. (2017). Crises and crisis generations: The long-term impact of international crises on military political participation. *Security Studies*, 26(4), 575-605.
- White, P.B. (2018). Military Participation in Government dataset V 1.0 Working Paper.
- White, P.B. (2019) Getting a Seat at the Table: Civil-Military Power-Sharing and Coup Propensity in Non-Democracies. Working Paper.
- Wright, J., & Escibà-Folch, A. (2012). Authoritarian institutions and regime survival: Transitions to democracy and subsequent autocracy. *British Journal of Political Science*, 42(2), 283-309.
- Yildirim, J., & Sezgin, S. (2002). Defence, education and health expenditures in Turkey, 1924-96. *Journal of peace research*, 39(5), 569-580.
- Zaverucha, J., & da Cunha Rezende, F. (2009). How the Military Competes for Expenditure in Brazilian Democracy: arguments for an outlier. *International Political Science Review*, 30(4), 407-429.
- Zirker, D. (1996). The Brazilian military and the New World order. *JPMS: Journal of Political and Military Sociology*, 24(1), 31.
- Zuk, G., & Thompson, W. R. (1982). The post-coup military spending question: a pooled cross-sectional time series analysis. *American Political Science Review*, 76(1), 60-74.

