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How to Keep Officers in the Barracks: Causes, Agents, and Types of Military Coups

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What are the most efficient strategies to prevent military coups d'état? The answer depends on *coup agency*, that is, who attempts to overthrow the regime: elite officers or lower-ranking combat officers. Elite officers and lower-ranking combat officers have different incentives, opportunities, and capacities when it comes to perpetrating coups. Using original data on coup agency, public spending, and officer salaries in the Middle East and North Africa, we find that counterbalancing—a strategy designed to increase barriers for coup plotters' coordination efforts—and higher shares of defense spending prove more effective at preventing coups by elite officers. However, higher social spending reduces the risk of coups by combat officers. Political liberalization has mixed effects on military agents. It decreases the risk of coups by combat officers, but makes elite officers more likely to mount coups. Our findings suggest that the study of coups needs to better incorporate variation and that we need to rethink the image of coups as purely elite-led power grabs.

On the night of July 22, 1952, a small group of young, mid-ranking army officers led by Gamal Abdel Nasser, Abdel Hakim Amer, and Khaled Mohey Eddin seized power in Egypt. The coup plotters used an artillery unit and a battalion of ground forces under their command to arrest Egypt's military leadership. They seized control of the military headquarters and other strategic buildings and locations in Egypt's capital Cairo. By the early hours of the following day, tanks in the streets and the element of surprise secured the success of a coup plot that later came to be narrated as the 1952 Revolution.

Almost six decades later, Egypt experienced another coup under the auspices of the Supreme Council of the Armed Forces (SCAF). This coup, though, bore little resemblance to Nasser's. On February 11, 2011, Egypt's military leadership, led by minister of defense Mohamed Hussein Tantawi and Chief of Staff Sami Annan, took over power in response to an Arab Spring–type uprising that saw masses of Egyptians demand the ousting of president Hosni Mubarak. The coup only became public knowledge when television stations announced the forced abdication of Mubarak and his chosen would-be successor, vice president Omar Suleiman. Not a single shot was fired, and no arrests were made. A military junta assumed control of the country and guided it through a post–Arab Spring transition period.

These two episodes in Egyptian politics highlight an important difference between kinds of military coups d'état. The 1952 coup was executed by a group of junior and mid-ranking officers. At the time of their seizure of power, none were members of the political elite. Indeed, they opposed their own military leadership as much as they did the state's political incumbency. The episode marks what we term a *combat-officer coup*. The 2011 episode saw high-ranking officers—who were already members of the political elite—take over power. We term such coups *elite-officer coups*.

These two coup types are fundamentally different in some theoretically intriguing ways. Different kinds of officers face different *incentives* and *opportunities* when it comes to executing coup plots. The top brass of the officer corps are political elites in authoritarian regimes such as the one exercising political power in Egypt. Those officers attempt coups d'état when their position within the elite coalition is threatened—whether by a power shift within the ruling coalition or by political liberalization—and when they can coordinate among one another. By contrast, coups by combat officers are led, in the vast majority of cases, by junior and mid-ranking officers. Those officers look at military service as a job that provides them with a regular income, rather than political power in the governing regime. But because they have access to weapons and exercise direct command over enlisted soldiers, they can sometimes overpower both political incumbents and higher-ranking officers. As in the 1952 Egyptian coup, they most often succeed when they carry out their coup with surprise and speed. Instead of mounting coups to maintain, or recover, political power, combat officers are often motivated by different concerns. These include failure by the state to provide them with adequate social welfare, the absence of rights and liberties, and related concerns.

We examine the distinction between elite-officer coups and combat-officer coups through a systematic comparison of the factors that keep these different kinds of plotters in the barracks. As we show in this article, empirical variation

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in the effectiveness of coup-proofing measures supports our wagers about different kinds of coups and the factors that drive them.

We use four different measures, all of which scholars associate with coup-proofing effects: military spending; social spending; the counterbalancing of independently operating, ground-combat capable military units; and political opening through liberalization. Drawing on original data on coups d'état, state budgets, and officer salaries in the Middle East and North Africa (MENA), we statistically test the impact of those policies on coup-proofing. We use MENA data because countries in the region have successfully reduced the risk of coups without democratizing. By contrast, the decline of coup incidents in other world regions often coincides with the transition to democracy. Thus, the focus on the MENA region allows us to study the effects of coup-proofing under broadly similar conditions: as part of an authoritarian tool set applied to keep autocrats in power.

Our findings support our theoretical expectations. In addition to high military budgets, counterbalancing—a strategy designed to increase barriers for coup plotters' coordination efforts—proves the most effective mechanism undermining elite-officer coups. This corroborates previous findings that study coups as a broad phenomenon. We also find support for our assumption that elite officers are particularly motivated to execute coups in order to counter, and eventually roll back, political liberalization efforts. On the other hand, counterbalancing fails to ward off coups by combat officers. Our findings also reveal that social spending and political liberalization significantly reduce the risk of combat-officer coups. Taken together, these results provide important empirical support for our understanding of combat officers as members of society writ large, who rely on the state's welfare provision for their overall well-being. Their attempts to seize power are coups from "below."

Our arguments and findings refine our understanding of the phenomenon of coups d'état and the effective strategies to prevent them. Most conventional cross-national datasets fail to distinguish between different types of coups. This article suggests that this is a mistake. Indeed, by disaggregating coups we reveal that social spending and political liberalization constitute previously overlooked mechanisms of coup-proofing.

Theorizing Agency in Military Coups

In this section, we review the literature on the causes of coups and mechanisms of coup-proofing with particular emphasis on coup agency. We do so with a focus on the differences between coups carried out by elite officers and those carried out by combat officers. Most recent studies involving variation among coups focus on their outcomes. Aksoy, Carter, and Wright (2015), for instance, distinguish coups reshuffling political leaderships from regime-changing coups. Other recent works explored *democratic coups* as those military takeovers triggering democratic transition (see Marinov and Goemans 2014; Tansey 2016; Chacha and Powell 2017; Harkness 2017). Instead, we emphasize the differences in causes and processes associated with elite-officer and combat-officer coups.

According to Powell and Thyne (2011, 252), coups d'état are "illegal, overt attempts by the military or other elites within the state apparatus to unseat the sitting executive." Concerning coup agency, we follow existing scholarship that distinguishes between coup plotters in terms of their position in the military hierarchy (Singh 2014; Albrecht 2015; De Bruin 2017). More specifically, we define an *elite-officer coup* as any successful or unsuccessful coup carried out by a country's military leadership, comprising Chief of Staff members, officers in command councils, and commanders of a military's functional units (army, air force, navy). A *combat-officer coup* in turn designates any successful and unsuccessful coup plotted by mid- and lower-ranking officers; plotters in the latter category may include individual higher-ranking officers—such as officers in the rank of general or major—who are not members of the military leadership. The key difference is that *elite officers* are members of authoritarian ruling coalitions; *combat officers* are not.

The term *coup-proofing* refers to strategies aimed at reducing the ability or the incentives of elites to stage a coup (Powell 2012, 1018). Effective measures employed for coup-proofing have long been studied, originally in small-n treatments (Brooks 1998; Gaub 2013; Kamrava 2000; Quinlivan 1999). Such measures include the establishment of parallel security apparatuses in the form of counterbalancing (Pilster and Böhmelt 2011; Powell 2014; Singh 2014; Carey, Colaresi, and Mitchell 2016; Sudduth 2017a; De Bruin 2017); the frequent rotation of officers in their assigned posts and the reorganization of the armed forces (Talmadge 2016); "ethnic stacking" of key positions in the army with co-ethnics deemed most loyal to the power holders (Jenkins and Kposowa 1992; Roessler 2011; Harkness 2016; Bellin 2012; Nepstad 2013); and elite management in the form of purges (Sudduth 2017b) or the institutionalization of political succession (Frantz and Stein 2017).

This body of literature advanced our understanding of the variable nature of coup-proofing. Yet, we see two major weaknesses. First, very few studies systematically test the effectiveness of different coup-proofing strategies. And those that exist produced inconsistent, at times conflicting findings. Second, and relatedly, the coup-proofing literature failed to systematically distinguish between different coup agents and thus conflated different coup types.[1] In the following, we propose a more fine-grained account of coup-proofing measures—and, by extension, coup causes. This is to differentiate between officers' *incentives* and *capacities* to execute coups. And we distinguish between elite and combat officers as coup agents.

Incentives for Coups

We begin with the personal incentives of officers to stage a coup. The literature conceptualizes such officer grievances as corporate (Finer 2002; Huntington 1957) and highlights the degree to which political decision makers allocate material resources to the armed forces. From this perspective, material benefits to the military serve as an effective coup-proofing strategy targeting agents throughout the military hierarchy (Collier and Hoeffler 2007; Conrad, Kim, and Souva 2013; Rittinger and Cleary 2013; Bove and Nistico 2014). Empirical tests of this proposition use some indicator of military expenditures, typically measured as a share of gross domestic product (GDP) or per soldier (for example, Leon 2014; Powell 2012).

Most accounts in this body of literature, however, fail to emphasize that military spending affects elite officers and combat officers in different ways. For elite officers, the

[1] Prominent exceptions include Singh (2014), Albrecht (2015), and Albrecht and Ohl (2016), who emphasize agency within military apparatuses. Roessler (2011), Harkness (2016), and Bou Nassif (2015)—among other scholars—highlight ethnic identities within military apparatuses in sub-Saharan Africa and the MENA region. Among the very few scholars distinguishing between specific types of coups, Kandeh's (2004) treatment of coups "from below" comes closest to the approach underlying our contribution.

military budget is an instrument to access and control resources used to maintain their own patronage networks within the military. These networks rest upon the logic of partial dependence and patrimonial loyalty, which links elite- to mid-ranking officers within the armed forces. In Egypt, for instance, elite officers use so-called loyalty allowances as an important instrument of patronage to ensure the support of lower-ranking officers (Bou Nassif 2013). In addition, elite officers use their resources to establish patronage networks with civilian actors. In Yemen, the military budget is a key instrument for elite officers to allocate funds to tribal elites, thus ensuring their loyalty (Knights 2013). Similarly, Syrian and Algerian generals utilize their resources to establish important business linkages (Mora and Wiktorowicz 2003; Aboud 2002). The lack of civilian oversight over military budgets facilitates this form of patronage politics in most MENA countries (Chams El-Dine 2013; Sater 2009).

Elite officers also care about the defense budget relative to other budget items in government spending. This reflects their concern about the balance of power vis-à-vis other branches of the administration, including possibly paramilitary units controlled by rivalling elites, such as interior ministries. The relative size of a military budget defines elite officers' bargaining power within the regime. Personal enrichment plays a subordinate role in this context, simply because members of authoritarian ruling coalitions enjoy manifold opportunities of self-enrichment regardless of the size of any particular budget. Individually, they can always cash in on their political influence—either during the time of their military service or when they transfer from military service to lucrative positions in the state apparatus (Sayigh 2012; Bou Nassif 2013).

Combat officers, by contrast, perceive military service primarily as professional employment. They care very little about the size of the military budget relative to other governmental budget items. Rather, they experience military spending mainly through salaries and the provision of suitable equipment. As direct superiors of rank-and-file soldiers, their perception is also shaped by their subordinates. Lacking an independent source of patronage, they crucially rely on the state to provide them and their subordinates with decent salaries and equipment. Otherwise, if the army's infrastructure is in a bad shape, they are going to be the ones to suffer in combat. Taken together, we therefore submit the following hypotheses:

H1: *High levels of military spending relative to other government agencies reduce the risk of elite-officer coups.*

H2: *High levels of military spending per soldier reduce the risk of combat-officer coups.*

While the civil-military literature firmly emphasizes corporatism and hierarchy in assumptions on military interests, noncorporate grievances have remained underanalyzed. This is at least in part because it requires disaggregating "the" military and accounting for the interests and demands of individual agents within that organization. Moreover, the effect of nonmilitary public spending on officers' grievances is typically ignored. A primary function of state spending is the provision of public services to the citizenry in the form of education, health care, housing, and subsidies. While social spending differs from military spending, it is intuitive to assume that different patterns in social spending have discrete consequences for different agents in the military hierarchy. As Besley and Robinson (2010) rightly point out, officers' preferences for spending on public services are not homogeneous. Instead, following Korpi (2006), these preferences depend on officers' socioeconomic status and their ability to substitute public welfare provision with private goods. This ability, in turn, varies considerably between elite and combat officers.

Being part of the authoritarian ruling coalition, elite officers enjoy access to numerous sources of income, which places them in a highly privileged economic position. Military remuneration data for a number of MENA states substantiate this claim. Elite officers' monthly salaries generally exceed the median household income by at least 2.5 and the average monthly salary by at least 2 times.[2] These ratios can reach up to 87 and 21 times respectively in countries with high agricultural employment resulting in a highly skewed income distribution. Morocco serves as a prominent example. What is more, elite officers have access to numerous additional income streams. In the Gulf countries, for instance, elite officers often hail from royal families and thus benefit from the lavish spoils handed out to royals (Lutterbeck 2013; Hertog 2011). In Egypt, senior officers frequently obtain leading positions in government agencies and state-owned enterprises while officially still in active service. They reach monthly salaries ranging from 16,000 to 166,000 US dollars (USD) (Sayigh 2012). Bashar al-Assad in Syria "allowed the military barons of his regime to amass huge wealth by building economic partnerships with prominent businessmen" (Bou Nassif 2015, 269). Elite officers thus are in a priviliged socioeconomic position relative to both ordinary people and their lower-ranking colleagues. They receive private health care in European or US institutions and can afford to send their offspring to study at elite universities abroad.

The situation is very different for combat officers. According to our remuneration data, combat officers are at best members of the middle class. This is certainly true for Algeria, Egypt, Tunisia, and Yemen, where the starting salary of a lieutenant is at best 2.5 times the median or 1.2 times the average monthly public sector salary. At worst, combat officers' salaries lie below the median monthly income and/or the average monthly salary. This is the case for lieutenants in Morocco, Lebanon, Saudi Arabia, Syria, and Kuwait. While systematic historical data on combat-officer salaries is nearly impossible to obtain, anecdotal references in the literature suggest a similar picture for earlier decades. Aclimandos (2004, 69, 113) quotes respective monthly salaries of eighteen Egyptian pounds (EGP) for Ahmed Hamroush and twenty EGP for Gamal Abdel Nasser, two prominent plotters in the 1952 coup in Egypt. A second lieutenant earned between twelve and fifteen EGP per month. By comparison, monthly university fees at the time amounted to five EGP, that is, roughly the equivalent of 40 percent of a lieutenant's salary. The economic status of combat officers is aptly summarized by an Egyptian officer: "Military ranks struggle like the rest of Egyptians because, like Egyptian society, the wealth is concentrated at the top and does not trickle down. You have to reach a specific rank before wealth is unlocked" (quoted in Bou Nassif 2015, 264n57). This means that the ability of combat officers to substitute public services, such as health care and education, for private ones is very limited. And in most cases it is simply absent. Combat officers crucially rely on the state to provide social welfare for them and their families.

[2] This assumes that elite officers hold the highest military position in the pay scale. The data generally reflect military salaries in the mid-2000s and early 2010s. See Table A3 in the online appendix for details (supplementary file).

Taken together, nonmilitary government spending has different effects on the grievances of different agents within the military hierarchy. Combat officers typically hail from the middle class and perceive military service as a professional job and an opportunity of upward social mobility. This professional opportunity comes with higher levels of education and a prestigious position in formal employment (Mora and Wiktorowicz 2003; Droz-Vincent 2007; Bou Nassif 2013; Böehmelt, Pilster, and Tago 2017). Yet, combat officers benefit much more from social spending than elite officers. Hence our third hypothesis is as follows:

H3: *Social spending reduces the risk of combat-officer coups and has no effect on elite-officer coups.*

Apart from military spending, authoritarian incumbents make decisions that more indirectly impact incentives for officers to stage coup attempts. Drawing on broader accounts of regime type (Hiroi and Omori 2013; Johnson, Slater, and McGowan 1984), the literature on structural causes of coups points to vibrant civil societies (Putnam 1967; Fossum 1967; Powell 2012) and the establishment of constitutional procedures in consolidated democracies (Perkins 2013) as important determinants of coup risk. The claim that liberal, consolidated democracy prevents coups is well-established. But this does not help us much when assessing the effectiveness of coup-proofing strategies in autocracies. Although establishing a liberal democracy would substantially decrease, if not eliminate, coup risk, genuine democratization does not constitute a viable coup-proofing strategy designed by autocrats with the aim of staying in power.

While genuine democratization is not an option, some regimes have engineered processes of limited political liberalization as an authoritarian survival strategy (Albrecht and Schlumberger 2004; Lust-Okar 2004; Anderson 2006). This has palpable consequences for officers and their position within regime coalitions. While political liberalization works to expand opportunities for civil society and possibly civilian regime members, it remains potentially risky for elite officers. Political liberalization typically entails the establishment of civilian institutions regulating state-society relations, including political parties, elections, and parliaments. Such formal civilian institutions compromise officers' position in the ruling elite in that they impose more scrutiny on the army's organization and budget. They also decrease officers' influence relative to civilian elite members. Hence, we expect elite officers to oppose political liberalization, even if it is designed as a regime-survival strategy.

By contrast, we expect combat officers' preferences for liberalization to be similar to those of ordinary citizens. Liberalization should assuage the political grievances they experience living under an authoritarian system. Rollback coups against such processes of political openings should feature elite officers as coup plotters, while combat officers would stay in the barracks. Indeed, the Algerian political opening in the early 1990s highlights the potential danger of political liberalization to trigger a conservative intervention by elite officers. Thus, our fourth hypothesis reads as follows:

H4: *Political liberalization increases the risk of elite-officer coups and decreases the risk of combat-officer coups.*

Finally, economic crises and shocks result in increased coup likelihood because they compromise the capacities of authoritarian governments to sustain spending levels relevant for coup-proofing. The research program on the interplay of economic development and coups identified commodity price crashes, sudden policy changes, structural adjustment, or environmental impact on the production of agricultural goods as factors increasing the probability of coups (Hiroi and Omori 2013; Kim 2016; Casper 2017; O'Kane 1981). More broadly, scholars believe that low levels of economic development affect the likelihood of coups (Collier and Hoeffler 2005; Johnson et al. 1984; Londregan and Poole 1990; Hiroi and Omori 2013), although recent cross-national studies cast doubt on explanations drawing on economic wealth (Powell 2012; Singh 2014; Svolik 2013).

While we acknowledge these factors, it is unclear how their impact would be different for elite and combat officers. Per-capita GDP growth raises the costs of coups for both types of agents, just as economic crises negatively affect spending relevant to both groups. Economic decay is likely to increase societal support for a coup in general. The same holds true for arguments about "ethnic stacking" (Jenkins and Kposowa 1992; Roessler 2011; Harkness 2016; Bellin 2012; Nepstad 2013). Political leaders here attempt to increase the loyalty norm throughout the military hierarchy by recruiting officers from coethnic social communities (Bueno de Mesquita, Smith, Siverson, and Morrow 2003; Roessler 2011; Gaub 2013; Harkness 2016). As a coup-proofing strategy, ethnic stacking should work for both elite and combat officers.

Capacities and Opportunities

Arguably one of the most influential approaches in the study of coup risk and coup-proofing emphasizes the need for coup plotters to coordinate among each other. We draw on those works that explain coups as coordination games to develop our argument (Casper and Tyson 2014; Little 2017; Marcum and Brown 2016; Singh 2014; Svolik 2013; Bueno de Mesquita and Smith 2017). Coup plotters need to learn about the individual preferences of possible allies and eventual adversaries within the military, but also about the likely reactions of civilian regime elites and broader society. Casper and Tyson (2014) argue that large-scale public protests provide a public signal of the incumbent's weakness and likely popular support for the coup (see also Galetovic and Sanhueza 2000; Johnson and Thyne 2018).[3]

Since a military coup is a form of collective action, both elite officers and combat officers need to coordinate among themselves to execute a plot. That said, significant differences between the two types of agents concern the incumbent's ability to increase coordination obstacles. Elite-officer coup plotters coordinate among themselves *horizontally*, that is, across larger military units. This is to accumulate what Singh (2014) calls *soft power*, including the ability to gather information about what is happening inside the armed forces, control over news made public, and the position of forces outside of the military organization. Such civilian agents include regime elites, social movements, and international players with a strategic interest in the country's politics. Elite officers typically shy away from exercising excessive physical violence during the plot's execution. In order to render fighting unnecessary, they seek to establish a *fait accompli* through their commanding position in the military hierarchy. Empirical evidence supports this assumption: the vast majority of elite-officer coups in the MENA (70 percent) occurred without any casualties among coup plotters or their adversaries.[4]

[3] Wig and Rod (2016) make a similar point about incumbents' weak electoral performance. Piplani and Talmadge (2016) argue that periods of interstate conflict also undermine officer coordination.

[4] See Table A4 in the online appendix for casualty data on MENA coups (supplementary file).

Combat officers, in turn, coordinate among themselves as well. In order to prepare for a coup, combat officers coordinate *vertically* with their rank-and-file soldiers. But they lack the power to see their coup decisions enforced through the military hierarchy. Unlike elite officers, they rely on their *hard power* (Singh 2014, 35–37)—access to weapons and direct command over enlisted men—when they make a surprise move on strategically and symbolically important locations in the country's capital city. Coup plotters from combat officers rely on the fire power of soldiers in their units and expect to overcome loyalist segments within the military. Fighting other units in this scenario is thus not uncommon as strategic locations need to be secured. In fact, 60 percent of all combat-officer coups in the Middle East entailed casualties, which provides evidence for a crucial difference between elite- and combat-officer coups regarding the mechanisms underlying coup attempts.

To give but a few examples of the salience of elite-officer coordination, military takeovers amid mass protests in Egypt, in 2011 and 2013 respectively, saw intense coordination of the top officers in the Supreme Council of the Armed Forces (SCAF). This council represents all branches of the Egyptian military. The 2013 coup shows particularly well that close coordination at the top of the military hierarchy all but seals the fate of sitting incumbents. Military leader Abdel Fattah al-Sisi issued a stunning forty-eight-hour ultimatum to president Morsi to step down or face removal by the armed forces. Similarly, the 1992 coup in Algeria was prepared by an unofficial council comprising all officers in the Algerian army in the rank of general.

Combat-officer coups follow a different script. Quite like the Free Officer's 1952 takeover of power in Egypt, a small group of mid-ranking officers led by a colonel, Alparslan Türkeş, executed the 1960 military coup in Turkey. That coup unfolded in an overnight move and was made public in a radio announcement in the early morning of May 27, 1960. Combat officers need to deploy rank-and-file soldiers for a show of physical force to make the coup a *fait accompli*. The 1962 coup in North Yemen proved successful primarily because the coup plotters employed the few armored vehicles available to the Yemeni army at the time. Using these vehicles, the plotters secured victory in a brief skirmish with loyalist forces. Since physical force is so essential, most combat-officer coups are carried out by particular army units that have access to such equipment, typically from the ground forces: Iraq's 1958 coup plotters relied exclusively on the 19th and 20th Army Brigade; the Libyan coup plotters in 1969 mostly hailed from the Signal Corps; and the 1971 coup attempt in Morocco was carried out by the cadets under commander Ababouh.

One prominent strategy to undermine coup plotters' capacities is counterbalancing, that is, the creation of ground-combat capable paramilitary organizations operating autonomously alongside the regular armed forces (Pilster and Böhmelt 2011; Powell 2014; Singh 2014; Carey et al. 2016; De Bruin 2017). Counterbalancing establishes fragmented security environments, consisting of regular and paramilitary forces. From the plotters' perspective, counterbalancing reduces the likelihood of a coup's success because infighting between plotters and loyalists becomes more likely. Coordination among officers is therefore essential in avoiding the possible failure of the coup.

Interestingly, the effect of counterbalancing on coups remains inconclusive. While some authors identify a direct causal link between counterbalancing and coup risk (Powell 2014; Carey et al. 2016), others emphasize the limitations of counterbalancing as a coup-proofing strategy (Böehmelt and Pilster 2015; De Bruin 2017; Sudduth 2017a). Based on our premise that coups vary across agency, our intuition is that the effectiveness of coup-proofing mechanisms more generally—and counterbalancing in particular—depends on whether coups are attempted by elite or combat officers. We argue that counterbalancing is particularly effective to fend off elite-officer coups. Take a unified security environment, such as in Egypt, as an example. In the absence of independently operating paramilitary forces, elite officers' communication for their intervention in politics is facilitated by the presence of a unified military command. The SCAF comprises roughly fifteen to twenty officers who would meet on a regular basis to discuss military-related matters. The establishment of parallel combat-ready forces would add uncertainty to these commanders' willingness to make military intervention a fact.

What is more, in many Middle Eastern armies, counterbalancing often goes hand in hand with ethnic stacking. In Syria, Yemen, Libya under Gaddafi, and Iraq under Saddam Hussain, both officers and soldiers in elite units and militias are recruited from among particularly loyal personnel, tied to the ruler through religious, tribal, or family bonds. Counterbalancing thus creates a crucial obstacle toward making the coup a *fait accompli*, and elite officers will probably hesitate to move until they will have overcome this obstacle.

The situation is different for combat officers. Owing to the fragmentation of military organizations on the level of individual combat units (battalions and brigades), coordination among all these units for coup attempts remains unrealistic. Where they turn into coup plotters, combat officers call their own units into action but are likely to face other units loyal to the embattled political incumbent. Combat officers therefore have to overcome the threat of resistance from the armed forces irrespective of the presence of unified or fragmented military command structures. Whether the presidential palace is guarded by a special force or regular troops, their typically substantial resistance is likely going to be taken into account. In Syria, for example, the 4th Armored Division is an elite unit within the regular Syrian army responsible for defending the Syrian regime from internal threats. As shown by Singh (2014), it is combat officers' show of physical force and a surprise move directed at the political incumbency—catching the incumbent "off guard"—that keeps units not involved in the coup in their barracks. Our fifth hypothesis therefore reads as follows:

H5: *Counterbalancing reduces the risk of elite-officer coups and has no effect on combat-officer coups.*

Empirical Analysis

Data and Method

We use annual data from eighteen MENA countries to test our expectations regarding the effectiveness of various coup-proofing strategies.[5] Our focus on MENA is particularly valuable for the purpose of our inquiry for two reasons. First, we find that the data to test our theoretical expectations concerning coup agency and public spending are currently only available for the Middle East. Second, apart from the quality of the empirical material, the MENA region offers an empirical playing field to study authoritarian coup-proofing better than any other world region (see Figure 1). While other world regions have also witnessed a significant decline in coup numbers, particularly Latin America and

[5] A list of the all included countries is shown in Table A1 in the online appendix (supplementary file).

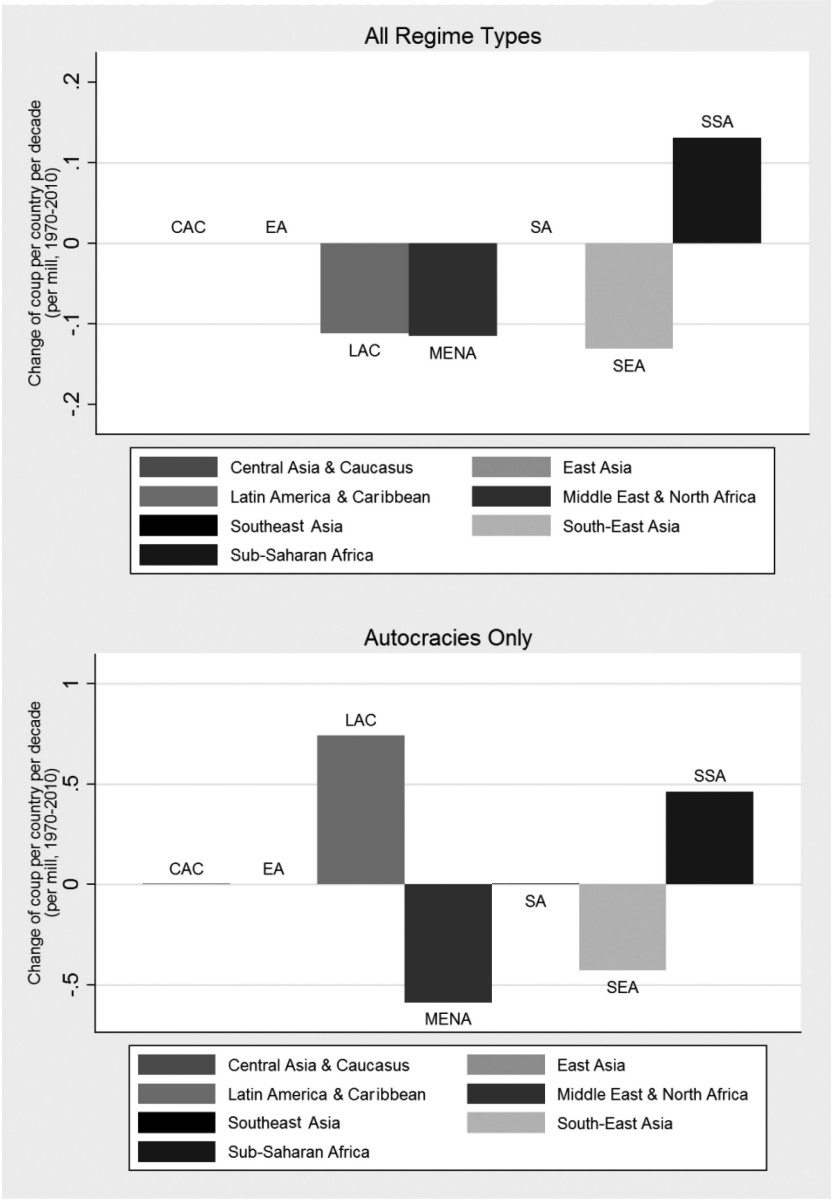

Figure 1. Average decline of coups per country per decade
Notes: We derived the figures by calculating the change of the number of coups per (authoritarian) country in each region for each decade since 1970. We then averaged and multiplied these figures by 1,000 for better readability. Authoritarian regimes defined as countries with Polity < 7. Coup data taken from Marshall and Marshall (2014).

Southeast Asia, this is in great part the consequence of successful democratization. While democratic transition leads to reduced coup risk (Johnson et al. 1984; Lehoucq and Pérez-Liñán 2014), this is of less analytical interest in a study of coup-proofing as an authoritarian power-saving exercise.

To measure our dependent variable, we use a novel dataset on coups d'état in the Middle East from 1949 until 2013 (Albrecht 2015). The dataset distinguishes between elite-officer coups emanating from the military leadership and combat-officer coups carried out by lower-ranking officers.[6] The data account for eighty-nine coups in total, of which thirty-eight were elite-officer coups and fifty-one were combat-officer coups.[7] The temporal distribution of these coups (Figure 2) shows a peak in the early 1970s, followed by a steady decline into the late 2010s.

Regarding coup-proofing strategies, data on *counterbalancing* is taken from Pilster and Böhmelt and measure the number of ground-combat capable organizations present in a given year (2011). Based on refined data from the International Institute for Strategic Studies, the variable captures the extent to which paramilitary organizations exist

[6] To operationalize the difference between *elite-officer coups* and *combat-officer coups*, we adopt Albrecht's (2015, 683) distinction between "centralized" and "sectoral" coups. We conceptualize the former as elite-officer coups where plotters include the chief of staff, the minister of defense, or members of Revolutionary Command Councils. All other coups are combat-officer coups. The latter category may include officers in higher ranks. This operationalization is suitable for our purposes because we are primarily interested in the degree to which higher officers have access to political decision-making, rather than officers' rank in the military hierarchy.

[7] Summary statistics for all variables are shown in Table A2 in the online appendix (supplementary file).

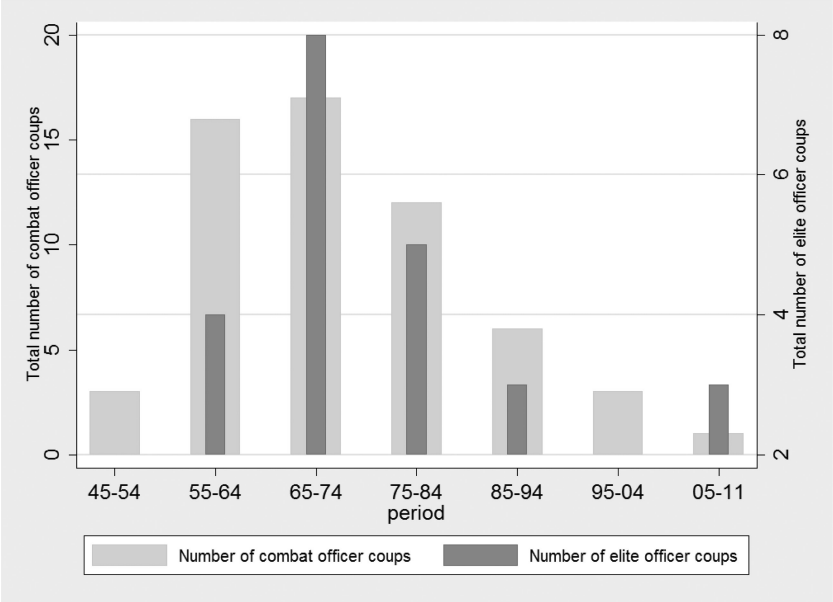

Figure 2. Coups by agency in MENA over time

alongside the regular armed forces. This sets these organizations apart from noncombative units of the security apparatus, such as port authorities or maritime police. Those are of little use in the face of military power.

Regarding *social spending*, we combine two data sources to measure a country's welfare effort. We use social spending data from the International Monetary Fund's (IMF) Government Financial Statistics (GFS) that measure combined expenditures in the fields of education, health, housing, and social protection (2011). As social spending data are spotty or missing from the GFS for a number of MENA countries, we also use an alternative measure from the Global State Revenue and Expenditure (GSRE) dataset (Lucas and Richter 2016). The GSRE is based on annual reports from the IMF archives and details a country's expenditures and revenues from the earliest available year after joining the IMF until the late 2000s. Its functional classification of social spending comprises the same categories as the IMF data. The two datasets therefore complement each other, and we use the GSRE data whenever IMF data are not available.[8] Our preferred measurement of social spending, *welfare/budget*, represents the share of social spending in total expenditures in a given year. Compared to other ratios, such as the share of GDP, this measurement most adequately captures a regime's welfare commitment (Brown and Hunter 1999, 782; Nooruddin and Simmons 2009, 854).[9]

The variable *military spending per soldier (logged)* is taken from the Correlates of War material capability database and measures the per-capita level of spending for each member of the armed forces in current USD (Singer, Bremer, and Stuckey 1972). Compared to absolute levels of defense spending, this variable more adequately captures the level of resources combat officers can expect to receive. The variable is log-transformed to correct for the discernible skewness of the data. The variable *military spending/budget* uses the above-mentioned Correlates of War data divided by the total level of government expenditures. The data on total expenditures come from the World Bank's (2016) World Development Indicators. The variable indicates the share of defense spending in the overall budget. We expect this variable to be of particular importance for elite-officer coups.

To measure political *liberalization*, we follow Böhmelt and Clayton (2018) and include the first difference of the annual Polity index taken from Marshall, Gurr, and Jaggers (2010). Positive values signify periods of political liberalization, while negative values signify development toward authoritarian rule.

We also include a number of standard control variables. Income effects are found to significantly reduce the risk of coups (Belkin and Schofer 2003; Kim 2016; Londregan and Poole 1990). Two variables account for potential income effects: *GDP per capita (logged)*, measured in constant 2005 USD, and *growth*, indicating the percentage change of per-capita GDP. Data come from the Maddison dataset (Bolt and van Zanden 2014). We also control for *resource rents per capita (logged)* as conflict over resources could potentially increase the likelihood of military intervention or, on the contrary, allow for more efficient support buying. The variable measures the annual income from oil and gas per capita in constant 2009 USD as compiled by Ross (2013).

Political instability and civil unrest also serve as potential triggers for military takeovers because coup plotters might interpret the outbreak of domestic unrest as a sign of regime vulnerability (Casper and Tyson 2014). Similarly, the occurrence of violent domestic conflict, such as civil wars, might propel the military into a role of political prominence (Svolik 2013). We therefore include an indicator of domestic *instability (logged)*, taken from Banks (2011), which sums up and log-transforms the number of assassinations, general strikes, antigovernment demonstrations, riots, and guerrilla warfare in a given year. In addition, we include a measure of *domestic conflict*, which represents the total number of minor and major domestic armed conflicts in a given year.[10]

[8] Correlation between both datasets is very high, ranging between 0.75 and 0.80 depending on the specific ratio (share of GDP or budget). If both sources are available, we prioritize the data source with the highest number of observations.

[9] The findings are robust to alternative measurements of social spending (Table A8 in online appendix, supplementary file).

[10] Minor conflicts entail between 25 and 999 battle-related deaths, with major conflicts representing anything exceeding this amount.

Table 1. Coup-proofing against combat-officer coups

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Welfare/budget$_{t-1}$	–2.826					–5.326	–5.444	–5.265
	(1.357)**					(2.080)**	(2.681)**	(2.182)**
Past coups$_{t-1}$	0.023	0.011	0.021	0.022	0.004	0.036	0.046	0.034
	(0.041)	(0.019)	(0.025)	(0.015)	(0.018)	(0.031)	(0.054)	(0.055)
Mil. spending per soldier (logged)$_{t-1}$		–0.312				–0.265	–0.009	–0.043
		(0.068)***				(0.166)	(0.236)	(0.209)
Mil. spending/budget$_{t-1}$			0.134			–0.359	0.219	0.430
			(0.463)			(0.863)	(0.526)	(0.393)
Counterbalancing$_{t-1}$				–0.288		–0.281	–0.370	–0.172
				(0.166)*		(0.310)	(0.307)	(0.317)
Liberalization$_{t-1}$					–0.097	–0.311	–0.256	–0.247
					(0.034)***	(0.104)***	(0.111)**	(0.110)**
GDP p.c. (logged)$_{t-1}$							–0.387	–0.372
							(0.242)	(0.241)
Growth$_{t-1}$							–1.828	–1.809
							(2.772)	(2.823)
Resource rents p.c. (logged)$_{t-1}$							–0.070	–0.072
							(0.055)	(0.063)
Domestic conflict$_{t-1}$								0.121
								(0.353)
Ethnic fractionalization$_{t-1}$								1.037
								(0.974)
Instability (logged)$_{t-1}$								–0.063
								(0.271)
N	703	1,007	837	889	1,146	485	469	466
Time polynomials	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: (1) Pooled probit model with cluster-robust standard errors. (2) Statistical significance: $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Pettersson and Wallensteen (2015) provide the data.[11] Since both variables occasionally code for coups as well (Powell and Thyne 2011), we made sure to only capture noncoup unrest and domestic conflicts.

We further control for the level of *ethnic fractionalization*, with the data taken from Alesina, Devleeschauwer, Easterly, Kurlat, Wacziarg (2003). The reason is that underlying ethnoreligious conflicts can provide an important motivation for military interventions (Roessler 2011). Finally, since coups can engender coups and thereby keep countries in a "coup trap" (Londregan and Poole 1990), we include a variable *past coups* accounting for the number of past coup attempts, both successful and unsuccessful.

Given the binary nature of our outcome variable, we use a pooled probit model to test our hypotheses. To model time dynamics in our data, we include time-spell polynomials following Carter and Signorino (2010), with a time spell representing the number of years since the last coup attempt, either by elite or combat officers, depending on the specific model.[12] This effectively allows the time dynamic to take any distributional shape and thus captures the underlying, time-dependent coup risk in each country. In addition, we lag all regressors by one year. This is to ensure the correct temporal dependence between our independent variables and the outcome. All standard errors are clustered by the unit of analysis to correct for heteroscedasticity across countries.

Main Results

Tables 1 and 2 display the findings for our baseline model for elite-officer coups and combat-officer coups respectively. Models 1–4 test the effect of each coup-proofing strategy on its own, only controlling for time dynamics and the number of past coups. Model 5 tests the effect of political liberalization. Model 6 tests the simultaneous effect of all coup-proofing strategies plus liberalization, while Models 7 and 8 successively add economic and political control variables. In the case of combat-officer coups, the results confirm our hypothesis that social spending is the single most effective strategy to avert such coups (Hypothesis 3). Although three out of four strategies seem to matter when tested for individually, the welfare variable is the only one to have a consistent diminishing effect on the likelihood of combat-officer coups. We also find strong support for our liberalization hypothesis (Hypothesis 4) as political liberalization significantly decreases the likelihood of combat-officer coups.[13]

The marginal effects plot in Figure 3 demonstrates the size of the welfare effect. Increasing the proportion of welfare in the budget from 15 to 65 percent roughly corresponds to a move from the lowest to the highest percentile. The probability of combat-officer coups diminishes substantially, from about 7 percent on average down to nearly 0, when welfare expenditures exceed the 40 percent mark. Figure 4 illustrates the effect of political liberalization on

[11] Including interstate conflict as a control variable is not possible in our baseline probit model as the variable does not vary in years preceding coups and is dropped by the model. We include the variable *war* from Pettersson and Wallensteen (2015) measuring the total number of interstate conflicts in a given year in the linear probability models in the online appendix (Table A6, supplementary file).

[12] Coup-specific time spells yield a slightly better model fit; hence we chose this specification. We present models with a time spell measuring the elapsed time since any coup attempt along with alternative time specifications in the online appendix (Table A5, supplementary file).

[13] To make sure our findings are not driven by the dropping of observations due to listwise deletion, we use multiple imputation (MI) to test a complete model in the robustness section.

Table 2. Coup-proofing against elite-officer coups

	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*
Welfare/budget t–1	–0.044					–0.752	0.443	0.055
	(0.922)					(1.235)	(1.343)	(1.360)
Past coups t–1	–0.015	–0.020	–0.039	–0.034	–0.024	–0.064	–0.141	–0.202
	(0.048)	(0.022)	(0.035)	(0.026)	(0.021)	(0.073)	(0.110)	(0.143)
Mil. spending per soldier (logged) t–1		–0.284				–0.274	0.215	0.268
		(0.093)***				(0.204)	(0.215)	(0.217)
Mil. spending/budget t–1			–0.210			–1.907	–6.585	–6.382
			(0.577)			(1.807)	(2.102)***	(2.350)***
Counter-balancing t–1				–0.444		–0.387	–0.875	–0.970
				(0.198)**		(0.273)	(0.376)**	(0.349)***
Liberalization t–1					0.090	0.012	0.060	0.099
					(0.035)**	(0.038)	(0.042)	(0.049)**
GDP p.c. (logged) t–1							–0.001	–0.134
							(0.395)	(0.389)
Growth t–1							–4.203	–3.912
							(2.676)	(2.915)
Resource rents p.c. (logged) t–1							–0.134	–0.106
							(0.057)**	(0.071)
Domestic conflict t–1								0.011
								(0.256)
Ethnic fractionalization t–1								0.357
								(1.198)
Instability (logged) t–1								0.524
								(0.226)**
N	703	1,007	837	889	1,146	485	469	466
Time polynomials	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: (1) Pooled probit model with cluster–robust standard errors. (2) Statistical significance: $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$.

combat-officer coups. Liberalization is measured in positive changes on the Polity scale and significantly reduces the risk of combat-officer coups. In turn, a shift toward authoritarianism increases it. Taken together, the results confirm Hypothesis 3 on welfare spending and Hypothesis 4 on liberalization, while our expectations regarding military spending (Hypothesis 2) are not borne out in the data.

Turning to our findings for elite-officer coups in Table 2, we find strong evidence in support of our main hypotheses. The pattern is similar to the results of previous research. Most coup-proofing strategies seem to have a significant effect when measured individually. However, only three measures retain their significance when we add economic and political control variables. Counterbalancing different security forces against each other represents an effective way to avoid coups carried out by the military leadership (Hypothesis 5). We also find that higher shares of military spending in the budget significantly reduce the risk of elite-officer coups, thus confirming Hypothesis 1. Social spending, in turn, has no effect on elite-officer coups (Hypothesis 3). Finally, in line with Hypothesis 4 and contrary to the effect on combat-officer coups, we find that political liberalization has a positive effect on elite-officer coups, suggesting a higher likelihood for coups.

To illustrate the effect of the counterbalancing strategy, Figure 5 shows the marginal effects of increasing the number of ground-combat capable organizations on the likelihood of elite-officer coups. Creating one additional paramilitary organization reduces the probability of such coups by more than 50 percent, whereas the presence of three competing (para)military organizations seems to reduce the risk of elite-officer coups practically to 0.

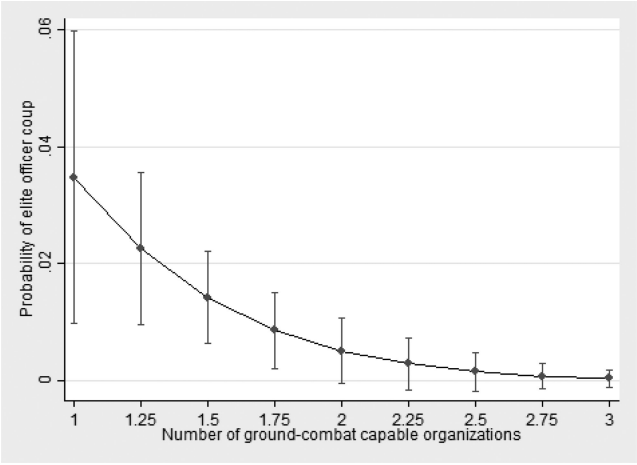

Figure 3. Social spending and combat-officer coups
Notes: All other covariates are held at median/mean. Whiskers represent 95 percent confidence interval.

Figure 6 demonstrates the rapidly decreasing probability of such coups as the share of defense spending increases from 10 to 65 percent of the budget.[15] Finally, the effect of political liberalization shows in Figure 7. The risk of elite-officer coups increases by 70 percent when incumbents liberalize the political system at the equivalent of three Polity points. In turn, strengthening authoritarianism seems to have an

[14] Results are available upon request.

[15] For better comparison, we chose to use a similar illustrative range of military spending as for social spending. Spending levels between 10 and 65 percent of the budget have been common in the MENA region and frequently reflect the difference between war and peace time.

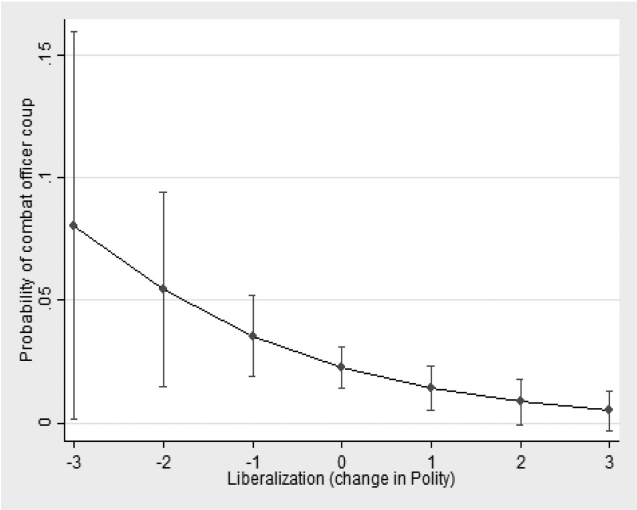

Figure 4. Liberalization and combat-officer coups
Notes: All other covariates are held at median/mean. Whiskers represent 95 percent confidence interval.

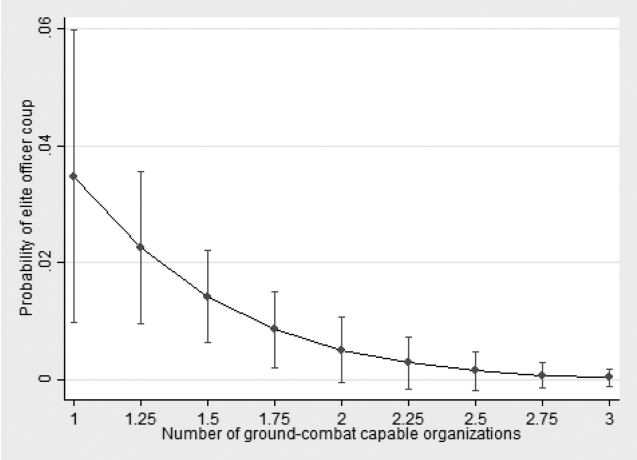

Figure 5. Counter-balancing and elite-officer coups
Notes: All other covariates are held at median/mean. The way counterbalancing is measured allows for increments less than 1. Whiskers represent 95 percent confidence interval.

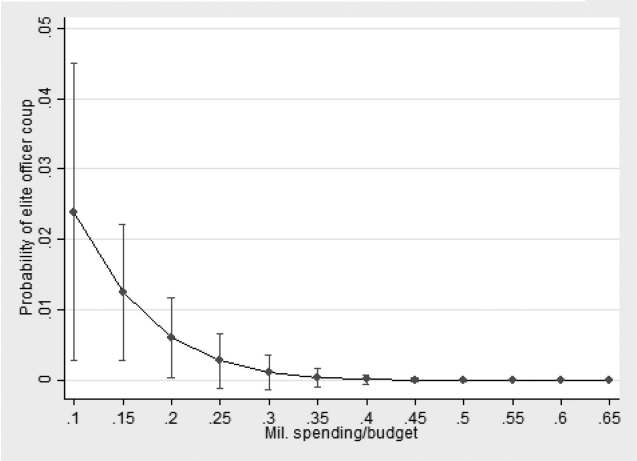

Figure 6. Military spending and elite-officer coups
Notes: All other covariates are held at median/mean. Whiskers represent 95 percent confidence interval.

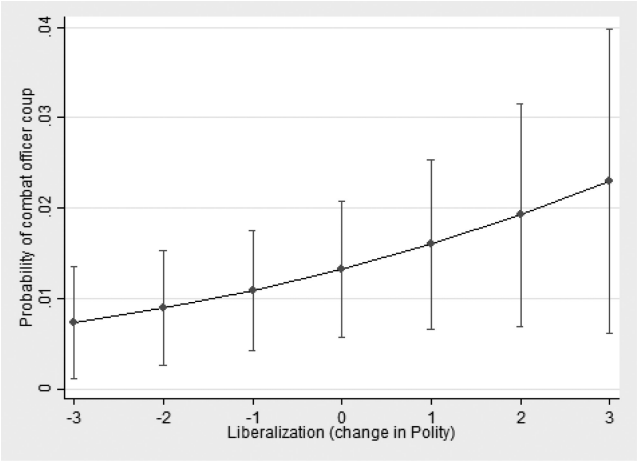

Figure 7. Liberalization and elite-officer coups
Notes: All other covariates are held at median/mean. Whiskers represent 95 percent confidence interval.

appeasing effect on elite officers. In sum, we find strong evidence for Hypothesis 1, Hypothesis 3, Hypothesis 4, and Hypothesis 5.

The lack of evidence for the effect of military spending on combat-officer coups is striking, though in line with similar findings on military spending in the literature (for example, Singh 2014). Our immediate suspicion is that military spending divided by the number of soldiers only represents a very crude measure of officers' financial compensation. In contrast to other types of expenditures, military spending typically includes high levels of capital expenditures for new machinery and arms. Only a select subset of officers, such as pilots or artillery divisions, benefit from such spending patterns. In the absence of better data on the distribution of current expenditures within the armed forces, we experimented with a measure that subtracts the amount of arms purchases from total military expenditures in order to more closely reflect the amount spent on soldiers' salaries. Yet, even this refined measure did not show any significant effect of military spending on combat-officer coups.[14]

Robustness Tests

To ascertain the robustness of our findings, we run a series of sensitivity tests that corroborate our results on social welfare and counterbalancing, while our findings on military spending and political liberalization survive most, yet not all robustness tests.

Since we introduce welfare spending as an alternative fiscal coup-proofing strategy, it is important to ensure that the effect is indeed driven by spending levels. Our robustness test aims to verify that our measure does not proxy for more long-term, structural variables in the realm of social development that cannot be easily manipulated by the government. We therefore rerun our baseline model on combat-officer coups successively including *child mortality (logged)*, *land inequality*, and *literacy* rates as social outcome indicators (Table 3). Data for child mortality come from the United Nations Development Program (UNDP 2015). Banks (2011) provides data on literacy rates. We follow Ansell and Samuelson (2014, 116) who measure land inequality as (1 – *family farms*) (1 – *urbanization*) to take into account the size of the rural population. Data for both

[14] Results are available upon request.

Table 3. Welfare spending vs. structural variables

	(COCs)	*(COCs)*	*(COCs)*
Welfare/budget t–1	–5.513	–4.965	–4.676
	(2.322)**	(2.787)*	(2.398)*
Mil. spending per soldier	–0.076	–0.237	0.019
(logged) t–1	(0.216)	(0.154)	(0.212)
Mil. spending/budget t–1	0.584	1.471	0.227
	(0.353)*	(0.569)***	(0.401)
Counterbalancing t–1	–0.177	–0.440	–0.216
	(0.319)	(0.362)	(0.339)
Liberalization t–1	–0.242	–0.368	–0.267
	(0.107)**	(0.177)**	(0.120)**
Child mortality (logged) t–1	–0.166		
	(0.210)		
Land inequality t–1		1.620	
		(1.844)	
Literacy rate t–1			–0.001
			(0.001)
N	466	329	466
Time Polynomials	Yes	Yes	Yes

Notes: (1) Pooled probit model with cluster-robust standard errors. (2) $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table 4. Estimation using multiple imputation

	(COC)	*(EOC)*
Welfare/budget t–1	–2.189	0.921
	(1.138)*	(1.444)
Mil. spending per soldier (logged) t–1	–0.218	–0.087
	(0.092)**	(0.109)
Mil. spending/budget t–1	0.336	0.267
	(0.444)	(0.536)
Counterbalancing t–1	–0.022	–0.561
	(0.256)	(0.240)**
Liberalization t–1	–0.084	0.080
	(0.034)**	(0.044)*
Past coups t–1	–0.006	–0.031
	(0.025)	(0.038)
GDP p.c. (logged) t–1	–0.069	–0.180
	(0.138)	(0.156)
Growth t–1	–0.208	–0.704
	(0.876)	(1.026)
Domestic conflict t–1	0.322	0.064
	(0.165)*	(0.219)
Ethnic fractionalization t–1	0.784	–0.386
	(0.555)	(0.496)
Resource rents p.c. (logged) t–1	–0.020	0.016
	(0.031)	(0.036)
Instability (logged) t–1	–0.023	0.213
	(0.105)	(0.114)*
NxT	1452	1452
Time polynomials	Yes	Yes

Notes: (1) Pooled probit model with cluster-robust standard errors. (2) $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$. (3) Coefficients based on fifty multiply imputed datasets created in Amelia II. Estimations were done using Zelig 4.

variables are taken from Vanhanen (2003) and linearly interpolated for missing years.[16] When testing the simultaneous effect of outcome variables and social spending, it is social spending and not the outcome variables that comes out significant, albeit diminished in size and at a lower level of significance. This supports our intuition that combat officers care about the government's policy in the area of social welfare, rather than absolute levels of human development.

Another important concern is the distortive effect of missing data as a result of listwise deletion. This occurs when cases drop out of the analysis because of individual missing values. Lall (2016) found that listwise deletion led to the disappearance of nearly half of the key results in a large sample of studies. To make sure our findings are not an artefact of missingness, we use multiple imputation to create complete datasets and rerun our baseline model on these multiply imputed datasets (King, Honaker, Joseph, and Scheve 2001; Honaker and King 2010). Specifically, we use the R program Amelia II (Honaker and King 2010) to impute fifty datasets with cubic time effects, lags and leads for a number of regressors (*welfare/budget*, *military spending/budget*, *military spending per soldier (logged)*, *GDP per capita (logged)*, *resource rents per capita (logged)*), and a ridge prior of 0.1 percent of the number of rows in the dataset. We generated two distinct imputed datasets and, as before, ran our estimation separately for combat-officer coups and elite-officer coups.

In light of the results displayed in Table 4, we are confident that our findings are not purely driven by listwise deletion. Social spending and political liberalization continue to exert a significant, diminishing effect on the likelihood of combat-officer coups. In turn, counterbalancing (and political liberalization) retain their significant negative (positive) effect on elite-officer coups. Interestingly, we find support for Hypothesis 2 regarding the effect of per-soldier spending on combat-officer coups when using imputed datasets. But we could not recover our earlier significant finding for *military spending/budget*. In fact, the variable changes sign in the analysis. We also find only weak or no support for an effect of *military spending/budget* in a number of additional robustness tests (see below and the online appendix, supplementary file), which prompts us to interpret our results on military spending as indicative and in need of further corroboration.

The online appendix (see supplementary file) shows results of further robustness tests that can only be summarized here and in Table 5 below. They include a regression model with alternative time specifications (online appendix, Table A5) and a random effects linear probability model (LPM) (online appendix, Table A6). Another model uses additional and alternative control variables, such as urbanization, a military regime dummy, ethnic exclusion instead of fractionalization, and the presence of political parties (online appendix, Table A7). We also test alternative measurements of social spending (online appendix, Table A8). Finally, we estimate a rare events logit (online appendix, Table A9), a fixed effects logit model (online appendix, Table A10), and a GMM-LPM model (online appendix, Table A11). We use the latter to, at least technically, take into account endogeneity between the dependent and independent variables. All tests confirm our central findings regarding the effect of social spending on combat-officer coups and counterbalancing on elite-officer coups. The effect of the variables *military spending/budget* and *liberalization* is robust to most tests with the notable exception of the fixed-effects logit and the (GMM) linear probability models. Given ongoing debates about the usefulness of LPMs for binary outcome variables, we caution against placing too much weight on these nonfindings. That said, supporting evidence for these two variables is certainly weaker. The results should thus be viewed with caution.

[16] Both variables exhibit strong trends, which makes linear interpolation a justifiable approach.

Table 5. Summary of robustness tests in online appendix

	Baseline model	*Alternative time specifications*	*LPMs*	*Additional control*	*Alternative measurements of welfare spending*	*Rare events logit*	*Fixed effects logit*	*GMM-LPM*
Welfare spending	■	■	■	■	■	■	■	■
Military spending/soldier								
Military spending/budget	■	■		■	■		N/A	
Counterbalancing	■	■	■	■	■	■	■	■
Liberalization	■	■		■	■	■		

Note: Shaded cells designate findings confirming our hypotheses; empty cells designate null findings; mixed cells designate weak or partially confirmatory findings.

Conclusions

Our findings provide strong empirical support for our contention that elite- and combat-officer coups involve fundamentally different processes and, in turn, require distinctive coup-proofing strategies. Elite-officer coups are largely driven by the political ambitions of supreme officers and the internal dynamics of authoritarian regimes. Hence, only high military budgets and organizational counterbalancing seem to be effective strategies for keeping them in the barracks. Indeed, political liberalization prompts elite officers to stage defensive coups to restore their power and position. Combat officers, however, are similar to ordinary citizens. Increased social spending addresses some of their motivations for plotting coups. Unlike elite officers, who generally enjoy significant wealth and income, combat officers derive meaningful economic benefits from general welfare expenditures. Political reforms in the direction of a more liberal polity also decrease the risk of combat-officer coups.

Our arguments apply to the study of change in authoritarian regimes. They will not travel to democratic contexts. Coups remain unlikely in democracies with established institutionalized avenues of elite competition. But our findings have important implications for broader scholarly debates on authoritarian regimes, military coups, and civil-military relations. A growing body of literature distinguishes between specific types of coups as mechanisms of authoritarian regime change (see, for example, Aksoy et al. 2015; Lehoucq and Perez-Linan 2014; Marinov and Goemans 2014; Tansey 2016). Elite-officer coups tend to produce changes of leadership, but not substantial shifts in authoritarian institutions. However, combat-officer coups tend to trigger more substantial political transitions in the form and content of authoritarian regimes.

Moreover, scholars of civil-military relations will note that we forward a more nuanced understanding of militaries as corporate organizations. Most work in this research tradition holds constant the military's institutional interests and does so by making assumptions about the preferences and incentives of its leadership. We challenge this approach, and show that research needs to recognize the existence of distinctive interest groups within militaries.

Indeed, our core premise—that combat-officer coups follow a different logic than elite-officer coups—sits uncomfortably with existing frameworks, such as that found in the prominent work by Acemoglu and Robinson (2006), which analyze the military as a corporate organization essentially representing elite interests in a struggle for the distribution of economic goods. This is true, we believe, for the upper echelons of the officer corps, but not for lieutenants, colonels, and even higher-ranking officers without political clout. Future scholarship should continue to disaggregate militaries in general, and military coups in particular.

Supplementary Information

Supplementary information is available at http://www.ferdinandeibl.com/publications and at the *International Studies Quarterly* data archive.

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