The Composition of the Security Sector and the Duration of Counterinsurgency Campaigns*

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Insurgencies continue to be a highly salient issue for politicians, journalists, and academics alike. Around the globe incumbents struggle to combat rebel groups, as in the Donbass region of Ukraine, in Kashmir, Syria, Yemen, Nigeria, and Colombia. Sometimes the conflicts between the government and the insurgents end within a few years, like the 2002-2004 conflict in Cote d'Ivoire, while others go on for a decade or longer, like the ongoing war in Iraq. These wars put great strains on society as a whole, on governments and on the economy. They destabilize surrounding countries and even create tensions in regions further afield, like the refugee crisis in Europe. The longer the fighting continues, the higher are the human, economic and political costs, and the more difficult it becomes to re-establish peace and stability. It is therefore important to understand why some conflicts last so much longer than others.

Research has made great progress in understanding how structural factors, such as the economy or ethnicity (e.g. Collier, Hoeffler, and Söderbom 2004), domestic actors (e.g., Cunningham 2006; Cunningham, Gleditsch, and Saleyhan 2009) or external actors (e.g., Balch-Lindsay, Enterline, and Joyce, 2008; Regan 2002; Walter 1997) influence the duration of civil war. Recent research started modifying the assumption that civil war is fought between two actors, a coherent government and a coherent rebel group. Disaggregating actors shows how spoilers (Stedman 1997), veto players (Cunningham 2006), and the political executive (Thyne 2012) shape conflict duration.

We contribute to this research by disaggregating the side of the government, focusing on the role of pro-government militias (PGMs). Such armed groups that are aligned with the government but are separate from the regular security forces often feature in counter-insurgency campaigns. For example, the Indonesian government relied on pro-government militias in East Timor in the 1990s, the Sri Lankan government used PGMs in their war against the Tamil Tigers, the Frelimo government in Mozambique was supported by the

Naparama militia during the early 1990s (Jentzch 2012). Pro-government militias have also played a decisive role in the current conflicts in Syria and Iraq. If governments use militias in their fight against insurgencies, do these conflicts last longer or do they tend to end more quickly? And do these militias increase the chances that the government avoids losing against the insurgents? We expect that PGMs that are officially recognized by the government and have a formalized link to the incumbent, are better organized and better equipped, with specific goals and higher group cohesion. Such semi-official PGMs are likely to act as spoilers in possible peace agreements, hence lengthening COIN operations. At the same time, if they are an effective force, they should help to avoid a military defeat by the government. Informal militias are only loosely connected to the government and therefore are more difficult for the government to control. As a result, they might be more likely to pursue their own strategies in conflict (Kalyvas 2006). While following personal interests, informal PGMs might also lengthen conflicts, but without increasing the government's chance to achieve a win or a draw.

To analyze how PGMs affect conflict duration and outcome, we narrow our focus on counterinsurgencies (COIN). During counterinsurgency wars governments fight small, armed and mobile groups that use guerrilla tactics, such as hit-and-run attacks, to win the support of the civilian population and harass state forces (Fearon and Laitin 2003). Focusing exclusively on COIN campaigns has two advantages. First, it allows us to keep constant the conflict environment and the type of warfare that allowed even weak insurgents groups to inflict severe losses on strong governments and their well-equipped militaries throughout history (Arreguín-Toft 2001). Second, COIN wars enable us to assess the difference PGMs make on the duration and outcome of the most common and most durable type of civil war (Balcells and Kalyvas 2014; Boot 2013).

In the following we outline why having multiple actors lengthens conflicts, building on work on fragmentation and veto players. We show why this argument should hold for pro-government militias, particularly to semi-official ones. Given the advantages governments expect from using PGMs, we discuss why they should help incumbents achieve a favorable outcome of COIN operations. We empirically test our expectations on a global data set on COIN wars from 1981 to 2005. Our results show that counterinsurgencies last longer if governments use semi-official armed groups, while they also decrease the risk that the rebels defeat the government.

PRO-GOVERNMENT MILITIAS AND THE PROBLEM OF FRAGMENTATION

Accounting for pro-government militias in counterinsurgencies helps us to develop a more realistic understanding of this type of internal conflict. In our sample from 1981 to 2005, 86% of COIN-months include PGMs. Additional parties to a conflict make its resolution more difficult. As the number of actors increase, it becomes more difficult to obtain reliable information on every single warring party. This worsens the commitment problem and makes it harder to end conflicts (e.g. Fearon 2004; Walter 2002). Additional actors in insurgencies, whether on the side of the government or the guerrillas, increase uncertainty and get in the way of trust and cooperation that are required for peace agreements (Olson 1965; Cunningham 2006). In the following we outline why PGMs make it more difficult obtain reliable information, why they worsen the commitment problem, and why they act as powerful spoilers. As a result, they are expected to make it more difficult to end COIN wars.

Pro-Government Militias and Information Asymmetries

Informational asymmetries among conflict parties play a central role in terminating conflicts (e.g., Fearon 1995; Thyne 2012; Walter 2009). Fearon argues "*private information* about

relative capabilities or resolve and *incentives to misrepresent* such information" (1995, 381, *emphasis in the original*) can prevent combatants, or potential combatants, from reaching a negotiated settlement. Private information about one's own abilities and resolve to continue fighting makes it difficult for the opponent to realistically estimate what it would take to win the war. Fearon (1995) discussed the information problem within the context of inter-state war, but it has also been applied to intra-state wars. Walter (2009) shifts attention to the willingness of governments and potential rebel groups to fight. She argues that information about the capabilities of (potential) rebel groups is more difficult to obtain during civil wars and the inventive to misrepresent information is higher (2009, 245-246). The fighting during the course of conflict provides insights into the capacities and willingness of the conflict parties. Behavior on the battlefield signals to the opponents how well the combatant is equipped to fight and reveals the commitment to use violence.

Walter (2009) points out that in two types of civil wars information is likely to be much harder to come by than in other types. These are guerrilla wars and wars with multiple factions (Walter 2009, 253). COINs, which are defined as governments fighting lightly equipped and mobile bands of insurgents that utilize guerrilla tactics, should be particularly susceptible to information problems. She suggests that it is far more difficult for the government "to expose the true nature of rebel strength and resolve" (2009, 253) when rebels use guerrilla tactics, since these groups often operate in areas that are difficult for the government to access and police. More importantly for our study, pro-government militias make it more difficult for insurgent groups to assess the fighting capabilities of the government, because insurgents will find it difficult to ascertain their size, capability and commitment to the government's cause. Unlike the police or the military, members of PGMs may not wear uniforms and are unlikely to live in designated barracks. They can be recruited

relatively quickly and cheaply and so make an accurate assessment of the warring capability of the government more difficult.

The second element that contributes to information problems during civil wars are multiple and shifting factions (Walter 2009; Cunningham 2006). Again, shifting alliances applies to the government as well as to the insurgent side. Armed groups that join the insurgency on the side of the government are likely to retain goals of their own. As Kalyvas argues, "individual and local actors take advantage of the war to settle local or private conflicts often bearing little or no relation to … the goals of the belligerents" (2003, 476). The government is unlikely to be fully informed about these goals and about the activities of the militia, just as insurgents find it difficult to assess the militias' goals and capacity to pursue them.

Pro-Government Militias and the Commitment Problem

The loose linkage between the government and militias makes it difficult for the government to commit to and comply with agreements with the insurgents. In anticipation of this, guerrilla groups are less likely to come to an agreement with a government who is aligned with militias. Referring to inter-state wars, Fearon highlights "commitment problems, [which are] situations in which mutually preferable bargains are unattainable because one or more states would have an incentive to renege on the terms" (1995, 381). Where governments align with militias, the security sector is more likely to have varying goals and therefore varying incentives to accommodate the warring parties. PGMs are likely to be less well trained or disciplined compared to regular forces. Individually initiated violence is more likely to occur because PGMs are likely to recruit and consist of extremists and opportunists (Elster 2004). In some circumstances these groups are formed of criminals or ex-criminals, such as in Syria, the Sudan and the former Yugoslavia (e.g., Mueller 2000). Consequently, the government

faces a problem in controlling PGMs, and PGMs find it difficult to control their members with potentially private interests in violence.

Pro-Government Militias as Powerful Spoilers

While a diverse set of actors complicates information, cooperation, and trust, pro-government militias should increase the duration of COIN operations because they can act as powerful spoilers. Stedman (1997) suggests that spoilers lengthen conflicts because they have an interest in continued conflict rather than in trying to achieve peace. Cunningham (2006, 875-876) argues that as the number of actors in a conflict increases, agreements acceptable to all are more difficult to find, the parties have more choices in bargaining alliances and a strong incentive to hold out to be the last signer in order to secure the best deal.

Cunningham's analysis shows that the more rebel groups are involved in the fighting, the longer a conflict lasted. Consistent with this earlier finding, together with co-authors he (2009, 587) finds that "conflicts that have more than one dyad or non-state actor tend to last longer than other conflicts." Thyne (2012) combines Cunningham's (2006) veto player argument with information and commitment problems to investigate the impact of multiple actors on the side of the government on conflict duration. He argues that strong and stable executives are better equipped to end civil wars faster. They do not need to rely on other actors to make agreements and they are better able to convince their opponent that they will hold up their side of an agreement, therefore reducing the commitment problem.

Building on the arguments by Stedman (1997) and Cunningham (2006), we expect PGMs to act as effective veto players and spoilers. They are likely to have an incentive to continue fighting and the capacity to do so. PGMs are armed but not fully under the control of the government. As a result, they possess a relatively independent capacity to continue fighting. Militias may value the authority that the government has given them to commit

violence, even over the possibility of peace. Peace and disarmament may leave their members uncertain about their income and possibly more open to retribution than are members of the regular security forces. Peace may expose group members to punishment, which further strengthens their incentive to prolong the conflict. Thus, PGMs may be less likely to agree to and honor negotiated settlements because they may expect higher gains from continued violence than from peace. Finally, they are equipped to continue fighting independent of the government, and they may shift their alliances - making them powerful veto players (Cunningham 2006).[1] This is particularly the case for semi-official militias. Compared to informal militias, semi-official PGMs are likely to be equipped with better weapons, vehicles, and intelligence. Informal militias often only have access to primitive equipment like machetes or handguns. Better equipped groups are better able to continue fighting, hence semi-official PGMs should be the better spoilers.

To summarize, we expect PGMs to lengthen COIN operations. They increase information problems and the opportunity to defect. They make it more difficult for governments to credibly commit to peace agreements and negotiated settlements, because PGMs increase uncertainty about the power imbalance and are likely to have their own incentives for continued conflict. While semi-official PGMs are more likely to be more powerful veto-players and spoilers, informal militias are likely to have a bigger impact on information and commitment problems. This leads us to the following expectations:

H_1: Semi-official pro-government militias decrease the probability that counterinsurgency wars come to an end.

H_2: Informal pro-government militias decrease the probability that counterinsurgency wars come to an end.

[1] Various militias that fought the insurgency in Darfur demonstrate that PGMs have the capacity to switch sides and will do so if they disagree with the government over how to settle the conflict (Seymor 2014).

THE EFFECTIVENESS OF PRO-GOVERNMENT MILITIAS

Governments use militias during counterinsurgencies because they expect them to bring certain advantages to their operations that their regular forces cannot provide. Using irregular forces have been a key element of the United States counterinsurgency campaigns in Iraq and Afghanistan, and continue to play an important role in COIN operations in Syria, Myanmar, or Burundi. What are the advantages that governments expect from these groups?

During COIN campaigns, the government's regular forces are regularly understaffed and over-mechanized and commonly lack operational flexibility and local information on the terrain and the supporters and fighters of insurgent groups (Lyall and Wilson 2009, Pilster et al. 2014). PGMs help governments address these issues. They overcome personnel shortages and deployment problems quickly and more cheaply compared to increasing the size of regular security forces (e.g., Carey, Colaresi, and Mitchell *forthcoming*; Carey, Colaresi, and Mitchell 2015). Militias are equally mobile like the insurgents they face and draw on local networks to extract valuable information on the location and identities of insurgents, which are crucial for successful COIN operations (e.g., Kilcullen 2010, Lyall 2010a). Particularly civil defense forces, which are local armed groups using (at least initially) defensive strategies, provide the government with essential intelligence through their language skills and close contacts to the civilian population (Clayton and Thomson 2014; Peic 2014). They help protect and defend civilians against rebel attacks and undermine the strategy of insurgents to control territory and people. With their usually formalized link to the government, civil defense forces, like other types of semi-official militias, allow the government to draw on local information to distinguish between bystanders, supports, and the insurgents to apply violence more selectively than conventional security forces. Given that

local information and selective punishment are key factors of winning COIN wars, we expect semi-official PGMs to be particularly effective during anti-insurgent operations.[2]

Both informal and semi-official militias bring tactical advantages that are crucial for fighting COIN wars. Both provide additional boots on the ground at lower cost and quickly expand available security forces. They posses superior local knowledge and in the case of semi-official PGMs assist the government in gaining support among the local population. If PGMs fulfill these expectations, they should help governments to win the war – or at least help them to avoid the worst outcome, i.e. losing territory and/or political influence to the insurgents.

Building on the insights from prospect theory, we expect that governments will put their greatest efforts towards avoiding losing territorial and political ground to the insurgents (Kahneman and Tversky 1979). Furthermore, "leaders in a bad situation, where things are bad or likely to get worse, are more likely to make risky choices to recover their losses" (McDermott 2004, 294). In COIN operations leaders focus their attention on not losing to the insurgents. As losses hurt more than gains satisfy, leaders put their efforts primarily into avoiding ending a conflict on the losing side, even if this risks escalating the commitment to try to regain losses (see also Levy 1996). Leaders thus might deem the deployment of militias during COIN wars a risky but potentially effective way to combat insurgents. While both semi-official and informal militias provide superior information and local knowledge, semi-official ones are likely to be better equipped for anti-insurgent operations and are better suited to win the support of the local population. Informal militias are particularly risky proxies as they can hurt the government's war efforts by using personally motivated and excessive violence (e.g., Mitchell, Carey, and Butler 2014; Kalyvas 2006), which pushes the local

[2] For a review of the role of PGMs in conflict, see Carey and Mitchell (2015).

population towards the rebels (Kalyvas & Kocher 2007). Overall we expect both types of militias to help government avoid losing COIN wars:

H_3: Semi-official pro-government militias decrease the probability that the government loses a counterinsurgency war.

H_4: Informal pro-government militias decrease the probability that the government loses a counterinsurgency war.

OPERATIONALIZATION AND RESEARCH DESIGN

To study the effect of PGMs on the duration and outcome of COIN wars, we draw on the Correlates of Insurgencies dataset (Lyall and Wilson 2009). This dataset provides systematic information on the start and end dates as well as on the outcomes on COIN wars. The data allow us to focus exclusively on civil wars in which small, mobile insurgent groups use guerrilla attacks and try to win-over parts of the civilian population to defeat the government (Lyall and Wilson 2009).[3] We use the start and the end date to extract the monthly duration of each COIN war. Limitations in the data availability of our key independent variables reduce the period under study to 1981-2005. Our data sample includes 91 COIN wars that were fought in 59 countries, with an estimated average duration of 184 months.[4] Figure 1 visually depicts our sample and displays the durations and outcomes for each COIN war including the presence of semi-official PGMs. The length of the horizontal bars indicates the duration of the COIN war in months. The line is black of no data on PGMs was available, e.g. when the war had started prior to the availability of PGM data. The red bar shows that semi-official PGMs were present, blue ones show that there were no such PGMs during these COIN months. The

[3] The dataset includes all insurgencies that have caused at least 1,000 battle deaths with at least 100 fatalities on each side (Lyall and Wilson 2009).

[4] Our data sample includes COIN wars that were ongoing in 2005, which means that we potentially underestimate the true average duration of COIN wars. The analysis on the outcomes of COIN wars is based on 70 wars.

symbol at the end of the bar indicates whether the government won or loss the conflict, where ongoing conflicts have no symbol. The graph shows that many of the shorter counterinsurgency wars, towards the bottom of the graph, did not have semi-official PGMs (colored in blue), while the longer ones towards the top mostly had semi-official PGMs (colored in red) and ended with a win for the government, indicated by the circle.

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Figure 1 about here

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Pro-Government Militias

Data on our key independent variables come from the Pro-Government Militia Database (PGMD) (Carey, Mitchell, and Lowe 2013). The PGMD provides information on the presence of informal and semi-official PGMs from 1981-2007. Informal PGMs are characterized by an informal and clandestine connection to the government, while semi-official PGMs have "a formally and/or legally acknowledged status" with their link to the government being "more formal and institutionalized" than those of informal PGMs (Mitchell & Carey 2013, 12). We capture the presence of both PGM types with two dichotomous variables. The variables *Informal PGM* and *Semi-official PGM* are coded 1 if one or more PGMs are present and 0 otherwise. The variables are lagged by one year to avoid potential problems with endogeneity.

Additional Security Sector Variables

We include two variables in the statistical analysis that are related to a country's security sector and hence might impact the duration of COIN wars and the outsourcing of military

operations to militias. First, paramilitary forces might serve as substitutes to militia groups and are also able to adopt tactics that might be more effective in fighting insurgency groups than the ones used by conventional armies. The variable *Paramilitaries* is dichotomous, with the value of 1 indicating the presence of at least one paramilitary organization. The data are taken from Pilster and Böhmelt (2011). Second, the overall repressive capacity of the regular military apparatus might influence the outsourcing of violence to PGMs as well as a state's capability of quelling insurgencies. *Military Expenditures p. c.* divides the state's annual military budget by the population size and proxies for the overall coercive capacity of the state (Hendrix 2010). Data on military expenditures are taken from the Correlates of War's CINC index (Correlates of War Project 2010) and data on population size comes from Gleditsch (2002). We logarithmize the variable to remove skewness and the influence of extreme values.

Measuring the Conflict Environment

We introduce several control variables to our statistical model that capture the larger context in which COIN operations take place. Based on the findings by Cunningham (2006), we include the dichotomous variable *Multiple Insurgent Groups*, which measures the fragmentation of insurgent movements. Facing multiple insurgent groups might not only motivate governments to boost their ranks with the help of militia groups but also provide governments with incentives to settle some insurgencies more quickly than others. The variable assumes a value of 1 if the government fought against at least two insurgent groups in the respective COIN war and 0 otherwise.[5] Similar to the fragmentation of insurgents groups, internal threats might change the governments' willingness to quickly end

[5] We hand-code this variable using information on the insurgent side that is provided in the COIN dataset (Lyall & Wilson 2009).

insurgencies, and, like coups, are likely to influence the presence of PGMs as political leaders might use them to secure their rule (Carey, Colaresi, and Mitchell *forthcoming*). We include *Coup Attempts*, which takes on values of 1 for years of (un-)successful coup attempts.[6] Data come from Powell and Thyne (2011).

Drawing on recent studies on the effectiveness of different COIN approaches (Lyall 2010b, Scharpf 2016), we include the dichotomous variable *Democracy*, which identifies democratic regimes in our analysis and is based on Polity IV data.[7] Population-rich countries are generally difficult to police. We account for such difficulties by including the variable *Population Size* in the statistical model, which is based on data from Gleditsch (2002). Recent findings suggest that ethnic exclusion makes it easier for armed groups to recruit guerrilla or militia fighters. Armed groups that recruit along ethnic lines are more likely to sustain even long periods of conflict (Wucherpfennig et al 2012). *Excluded Ethnic Population* captures the logged share of the excluded population in relation to the total population that is ethnopolitically relevant, measured with data from Wimmer et al. (2009).

Similar to the problems of quelling ethnic insurgencies, rough and mountainous terrain can serve insurgents as strategic hide-outs for their protracted wars while governments are likely to deploy local militia groups to such regions. *Mountainous Terrain* is based on the data by Fearon and Laitin (2003) and measures the logarithmized portion of mountainous terrain in a country.

Operating from their hide-outs, insurgent groups use hit-and-run attacks to harass state forces. Such attacks might not only trigger strong military responses by government forces but also influence the behavior of the civilian population with direct consequences for the duration and outcome of guerrilla wars. We account for such dynamics by including the

[6] To assess the robustness, we also include included the count variable *Coup History* that measures the overall number of past coup attempts per year. Results remained unchanged and are shown in Table A3 and A5 in the Appendix.
[7] We use the conventional cut-off of +7 to distinguish autocratic from democratic regimes (Lyall 2010b).

dummy variable *Guerrilla Attacks* in our analysis. The variable is based on Banks (2008) and measures attacks by non-state actors in a given year. We control for the number of domestic anti-insurgent operations per year in a country with the variable *Ongoing COIN Wars*, as they are likely to influence the presence of PGMs, as well as duration and outcome of the counterinsurgency. The variable is based on information provided in the original COIN dataset (Lyall & Wilson 2009).

Finally, in our analysis we control for COIN wars that are fought by governments in sub-Saharan Africa. Governments in this region are selective in which insurgent groups they militarily engage with and which ones they co-opt with politically means (Day & Reno 2014). Moreover, African political rulers are oftentimes willing to accept insurgencies in the hinterland of their countries if it allows them to secure their grip on power at the center (Roessler 2011). This suggests that the political rationale of COIN wars in sub-Saharan Africa might have unique effects on when and how governments fight guerrilla groups. We thus include the region-specific dummy variable *Sub-Saharan Africa* in our statistical model to capture potential idiosyncrasies of these COIN wars. A complete list of all variables and summary statistics is shown in Table A1 in the Appendix.

Methods

To test our hypotheses, we undertake a two-step approach. We start our analysis by assessing the effect of PGMs and other security organizations on the duration of COIN wars. We rely on discrete-time event history models and utilize logit regressions to estimate the probability that a COIN war ends (Box-Steffensmeier, and Jones 2004).[8] While this approach allows us to investigate the duration of COIN wars, it does not allow us distinguish between military

[8] Beck, Katz, and Tucker (1998, 1265-8) show that the logit model is almost identical to the Cox proportional hazard when using grouped duration data and the probability of an event occurring is less than 50%. To assess the robustness of our results, we also estimated Cox proportional hazard models. Our results remained unchanged and are shown in Table A4 in the Appendix.

defeats or victories. Hence, in the second step, we analyze the effect of PGMs on COIN outcomes. We draw on our theoretical expectation that leaders are willing to undertake risky decisions to avoid losing wars against militarily weaker guerrillas. Our outcome variable in this second step is based on the information from Lyall & Wilson (2009) and combines wins and draws by the government to clearly distinguish them from military defeat.[9] For the statistical analysis we employ multinomial logit regressions. In both models, we account for duration dependency with cubic polynomial (Carter and Signorino 2010).[10] We use robust standard errors clustered on countries to account for correlations between observations. Given the non-linearity of both model types and for the ease of interpretation, we rely on the simulation-based approach by King et al. (2000) to calculate substantive effective sizes.

RESULTS

COIN Duration

Table 1 shows the results from the logit analysis to investigate COIN duration. Model 1 only includes our two key independent PGM variables. Informal PGMs do not have any discernible effect on COIN termination, while the coefficient for semi-official PGMs is negative and statistically significant. This suggests that semi-official PGMs increase the duration of COIN wars.[11] To ensure that these results are not spurious, we control for the composition of the security sector in Model 2 and add additional contextual variables in Model 3.[12] The effect of semi-official PGMs remains unchanged. While paramilitary forces do not seem to affect COIN duration, the coefficient for military expenditures per capita is

[9] We also use the original "win, draw, loss" variable of Lyall & Wilson (2009) and re-run our analysis. Results remain substantively unchanged and are shown in Table A6 in the Appendix.
[10] To account for left-censoring in the statistical analysis, we follow the recommendation by Carter and Signorino (2013) and generate the time polynomials based on the first month of the COIN war.
[11] These results are supported by Kaplan-Meier survival estimates, which are shown in Figure A1 and A2 in the Appendix.
[12] The statistical insignificance of the variables *Paramilitary* and *Informal PGMs* are not caused by multicollinearity. Correlations between all four variables of the security sector are negligible and shown in Table A2 in the Appendix.

positive and statistically significant. Putting more money into the military seems to make the termination of COIN wars more likely.

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Table 1 about here

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To assess the substantive effects of the composition of the security sector, we simulate quantities of interest for all four security sector related variables. Figure 2 graphically depicts the effects. In each of the four panels the circle in the top bar indicates the simulated effect for sub-Saharan Africa and the lower bar with the square shows the estimates for all other regions. The grey bars represent the 95% confidence intervals, the black ones the 90% confidence intervals. The top panel shows the impact of informal PGMs on the probability of COIN operations coming to an end, indicating that there is no discernable effect. The picture looks different for semi-official PGMs in the second panel from the top. Outside of sub-Saharan Africa, a COIN war that includes a semi-official PGM is almost 8% less likely (95% CI: -2% to -15%) to end compared to one without semi-official PGMs. The size of the simulated effect is smaller for sub-Saharan Africa but still significantly different from zero. In the third panel, the figure shows that the impact of paramilitary organizations on COIN duration cannot be distinguished fro zero. Finally, increasing military expenditure p.c. by adding one standard deviation to the mean increases the probability of COIN termination by 1% (95% CI: 0% to 6%) in sub-Saharan Africa and by 3% (95% CI: 1% to 6%) in all other regions.

The results support our argument that semi-official PGMs decrease the probability that COIN wars come to an end (H_1). Their important role and status, combined with their ability

to keep on fighting, makes it more difficult for governments to commit to peace and for insurgents to trust the government in potential peace negotiations – making semi-official PGMs powerful veto players and potential spoilers. This is not the case for informal PGMs, which leads us to reject H_2. These groups are likely to have a weak organizational structure and coherence, and are less well equipped for war compared to semi-official PGMs. This weaker position seems to prevent them from successfully spoiling peace agreements. Furthermore, their private interest in violence, and their fear of prosecution that might loom with the end of the war, do not seem to prolong COIN wars either.

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Figure 2 about here

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COIN Outcomes

Next we turn to assessing the impact of PGMs on the outcome of counterinsurgencies. Both groups are expected to decrease the risk that the government is defeated by the insurgents. Table 2 shows a cross tab of COIN outcome and informal PGMs. The government defeated the insurgents in two-thirds of the COIN wars in which they aligned with informal PGMs. But it also won over 70% of those wars where it did not use this strategy. Table 3 shows the same information for semi-official PGMs. Of 66 COIN wars that ended within our time frame, in only five did the government lose when using semi-official PGMs. The government won 85% of COIN wars in which it created or aligned with semi-official PGMs – compared to only 55% of wars in which they did not use these types of groups.

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Tables 2 and 3 about here

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To test the link between PGMs and COIN outcome more systematically, we turn to the multinomial regression models, presented in Table 4. The first model in this table only includes the two types of PGMs, the second model incorporates the environment of the war, and the third model controls for additional COIN actors. Across all three models semi-official PGMs are highly statistically significant and reduce the probability of a government loss. For paramilitaries and military expenditure, however, we cannot identify any statistically significant impact on COIN outcome.

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Table 4 about here

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Figure 3 graphically displays the simulated effects of the four different aspects of the security sector composition on COIN outcome, again separately for sub-Saharan Africa and all other regions. Again the impact of informal PGMs and paramilitary groups hovers very closely around zero for both regions. Military expenditure appears to slightly increase the changes of a government win outside of sub-Saharan Africa. Of these four characteristics, only semi-official PGMs impact the outcome of COIN wars. The probability of a government defeat declines by just over 4.6% (95% CI: -1% to -11%) in sub-Saharan Africa and by almost 9% (95% CI: -1% to -16%) in the other regions. While we have to reject our

hypothesis (H_4) that informal PGMS decrease the probability of a government defeat, our expectation that semi-officials PGMs are able to do so (H_3) is supported.

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Figure 3 about here

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CONCLUSION

Earlier research suggests that the number of veto players is likely to have an impact on the duration of civil war (Cunningham 2006). While most research focuses on the rebel side and one study has highlighted the role of the executive (Thyne 2012), we contribute to this research by accounting for armed groups that are aligned with the government. During civil wars the government usually does not restrict itself to using only regular security forces, such as police and military. Instead, more often than not, they include irregular armed groups, or militias within their security apparatus. By departing from modeling the government as a unitary actor, we are one step closer representing real-world scenarios of civil wars. First, PGMs can act as actor multipliers, complicating information and commitment problems. Second, PGMs could also act as force multipliers and as such helping the government to avoid a defeat against the insurgents. Our research showed that the more institutionalized and regulated PGMs make it more difficult to end the fighting, while neither informal PGMs nor paramilitaries affect the duration of COIN wars. Insurgents might perceive semi-official PGMs as pursuing their own agenda – and able to do so. As a result, these groups make it more difficult for both the government and the insurgents to overcome the commitment problem. Semi-official PGMs also seem to increase the problems for the insurgents to collect

reliable and valid information, which again lengthens COIN wars. Finally, government that want to end the fighting will need to offer these groups incentives to lay down their weapons.

While semi-official PGMs increase the duration of COIN wars, their employment appears to pay off at the end of the conflict. Governments are more likely to avoid defeat against the insurgents when they include these types of forces in their security apparatus. Again, informal PGMs and paramilitary groups fail to make an impact on COIN outcome. Our study acknowledges the complexity of COIN wars and shows that the composition of the security sector affects duration and outcome of such conflicts. Yet we have only begun to draw a more realistic picture of COIN warfare. Further analyses of the different elements and variations within and between security organizations are likely to shed more light on the onset, dynamics and aftermath of civil war.

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Tables

Table 1: Logit regression results for termination of counterinsurgency wars, 1981-2005.

	(1) PGMs	(2) Warfare	(3) Fragmentation
Informal PGMs	−0.069	0.152	0.137
	(0.294)	(0.317)	(0.316)
Semi-official PGMs	−0.873***	−0.787***	−0.829***
	(0.275)	(0.283)	(0.291)
Military Expenditures p.c.		0.134**	0.139**
		(0.068)	(0.068)
Paramilitaries			0.145
			(0.389)
Multiple Insurgent Groups			0.131
			(0.263)
Coup Attempts		0.290	0.247
		(0.547)	(0.567)
Democracy		−0.677	−0.704
		(0.449)	(0.445)
Population Size		−0.312**	−0.304**
		(0.125)	(0.121)
Excluded Ethnic Population		−0.019	−0.030
		(0.128)	(0.127)
Guerrilla Attacks		−0.378	−0.400
		(0.328)	(0.331)
Mountainous Terrain		−0.201*	−0.209*
		(0.115)	(0.115)
Ongoing COIN Wars		−0.133	−0.147
		(0.300)	(0.302)
Sub-Saharan Africa		−0.746**	−0.769**
		(0.341)	(0.354)
Constant	−1.925***	1.547	1.370
	(0.318)	(1.166)	(1.113)
Wald χ^2	19.93***	44.57***	43.74***
Pseudo R^2	0.03	0.07	0.07
Pseudo Log-Likelihood	−224.09	−202.27	−202.10
Number of clusters	56	55	55
Number of observations	826	783	783

Values are coefficients with robust standard errors in parentheses, clustered on countries.
Time polynomials are statistically insignificant and not shown.
* p<0.1, ** p<0.05, *** p<0.01

Table 2: Presence of informal pgms and counterinsurgency outcomes, 1981-2005.

COIN Outcomes	No Informal PGM	Informal PGM	Total
Loss	26.67	33.33	30.30
	40.00	60.00	100.00
	(8)	(12)	(20)
Win	73.33	66.67	69.70
	47.83	52.17	100.00
	(22)	(24)	(46)
Total	100.00	100.00	100.00
	45.45	54.55	100.00
	(30)	(36)	(66)

Note: Values are column and row percentages with observations in parentheses.

Table 3: Presence of semi-official pgms and counterinsurgency outcomes, 1981-2005.

COIN Outcomes	No Semi-official PGM	Semi-official PGM	Total
Loss	45.45	15.15	30.30
	75.00	25.00	100.00
	(15)	(5)	(20)
Win	54.55	84.85	69.70
	39.13	60.87	100.00
	(18)	(28)	(46)
Total	100.00	100.00	100.00
	50.00	50.00	100.00
	(33)	(33)	(66)

Note: Values are column and row percentages with observations in parentheses.

Table 4: Multinomial logit regression results for outcomes (loss, draw + win) of counterinsurgency wars, 1981-2005.

	(1) PGMs		(2) Warfare		(3) Fragmentation	
	Loss	Win (+Draw)	Loss	Win (+Draw)	Loss	Win (+Draw)
Informal PGMs	0.371	−0.266	0.295	0.033	0.295	0.003
	(0.487)	(0.375)	(0.486)	(0.437)	(0.483)	(0.439)
Semi-official PGMs	−1.814***	−0.498	−1.909***	−0.339	−1.897***	−0.415
	(0.532)	(0.365)	(0.658)	(0.374)	(0.675)	(0.369)
Military Expenditures p.c.			0.128	0.140	0.129	0.151
			(0.127)	(0.096)	(0.129)	(0.095)
Paramilitaries					−0.072	0.316
					(0.707)	(0.500)
Multiple Insurgent Groups					−0.042	0.168
					(0.524)	(0.341)
Coup Attempts			−0.268	0.547	−0.246	0.489
			(1.029)	(0.603)	(1.027)	(0.637)
Democracy			−2.085	−0.348	−2.076	−0.381
			(1.333)	(0.503)	(1.382)	(0.484)
Population Size			−0.469*	−0.298*	−0.468*	−0.286*
			(0.245)	(0.152)	(0.255)	(0.147)
Excluded Ethnic Population			0.018	−0.073	0.022	−0.089
			(0.170)	(0.169)	(0.172)	(0.172)
Guerrilla Attacks			0.844*	−0.825**	0.854*	−0.858**
			(0.481)	(0.392)	(0.501)	(0.398)
Mountainous Terrain			−0.232	−0.171	−0.229	−0.185
			(0.204)	(0.138)	(0.209)	(0.140)
Ongoing COIN Wars			0.193	−0.245	0.195	−0.275
			(0.550)	(0.404)	(0.525)	(0.407)
Sub-Saharan Africa			−0.432	−1.029**	−0.421	−1.055**
			(0.682)	(0.458)	(0.685)	(0.462)
Constant	−2.477***	−2.614***	1.863	0.981	1.906	0.640
	(0.458)	(0.439)	(2.120)	(1.490)	(2.158)	(1.373)
Wald χ^2	24.38***		113.75***		140.27***	
Pseudo R^2	0.04		0.10		0.10	
Pseudo Log-Likelihood	−258.80		−228.78		−228.45	
Number of clusters	56		55		55	
Number of observations	826		783		783	

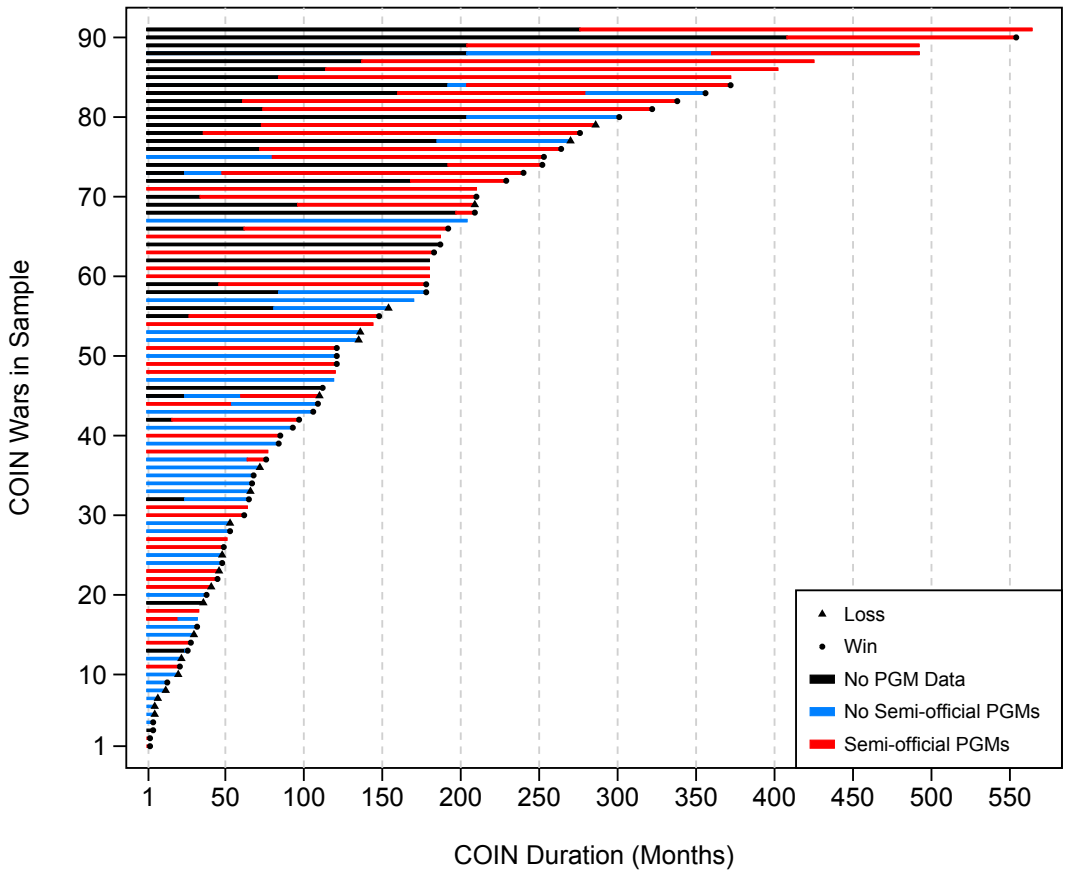
Values are coefficients with robust standard errors in parentheses, clustered on countries. Ongoing COIN wars are reference category.

Time polynomials are statistically insignificant and not shown.

* p<0.1, ** p<0.05, *** p<0.01

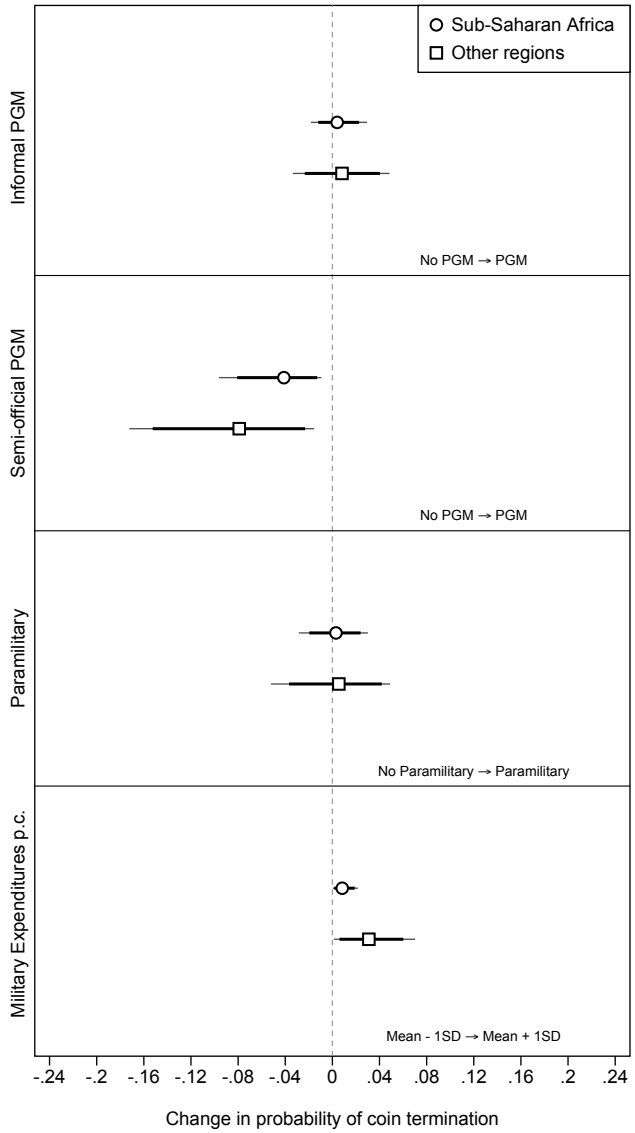
Figures

Figure 1: Duration and outcomes of counterinsurgency wars.



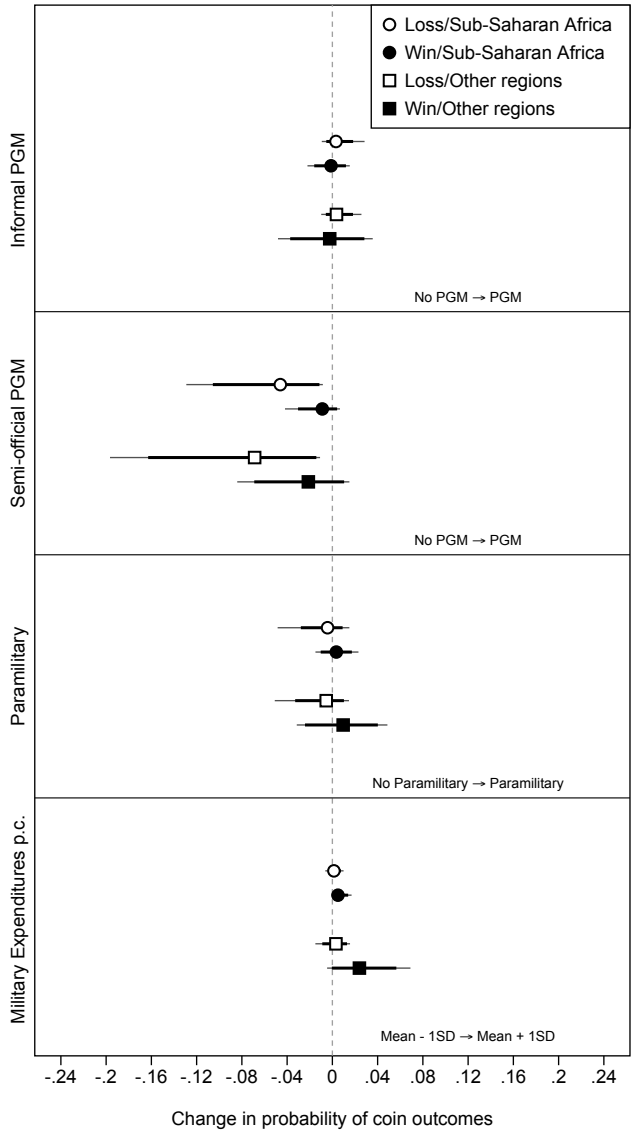
Note: Data sample includes COIN wars that were active between 1981-2005, but might have started before 1981. For right-censored cases outcomes are missing.

Figure 2: Effects of security sector composition on termination of counterinsurgency wars across regions, 1981-2005.



Note: Simulated effects are based on logit regression (Model 3) in Table 3. Effects for informal, semi-official pro-government militias, and paramilitaries are first differences and derived from comparing a scenario with and without the presence of the respective groups. Effect for military expenditures p.c. are first differences and derived from comparing a scenario with expenditures with 1 standard deviation above and 1 standard below the average value. In each scenario, continuous variables are held constant at their means, while categorical variables are held constant at their medians. Thin grey bars indicate 95% confidence intervals, thick black bars give 90% confidence intervals.

Figure 3: Effects of security sector composition on outcomes of counterinsurgency wars across regions, 1981-2005.



Note: Simulated effects are based on multinational logit regression (Model 3) in Table 4. Effects for informal, semi-official pro-government militias, and paramilitaries are first differences and derived from comparing a scenario with and without the presence of the respective groups. Effect for military expenditures p.c. are first differences and derived from comparing a scenario with expenditures with 1 standard deviation above and 1 standard below the average value. In each scenario, continuous variables are held constant at their means, while categorical variables are held constant at their medians. Thin grey bars indicate 95% confidence intervals, thick black bars give 90% confidence intervals.

Appendix

Table A1: Summary statistics, 1981-2005.

	Type	Obs.	Mean	Std. dev.	Min.	Max.
Informal PGMs[a]	Binary	826	0.59	0.49	0.00	1.00
Semi-offical PGMs[a]	Binary	826	0.69	0.46	0.00	1.00
Paramilitary[a]	Binary	898	0.85	0.35	0.00	1.00
Military Expenditures p.c.[a,b]	Continous	862	3.37	1.65	0.72	10.42
Coup Attempts[a]	Binary	898	0.05	0.22	0.00	1.00
Past Coup Attempts[a]	Count	898	2.89	2.99	0.00	13.00
Democracy[a]	Binary	891	0.26	0.44	0.00	1.00
Population Size[a,b]	Continous	899	10.33	1.55	6.33	14.06
Excluded Ethnic Population[a,b]	Continous	881	2.73	1.34	0.00	4.52
lnmtnest	Continous	896	2.69	1.17	0.00	4.41
Guerrilla Attacks[a]	Binary	900	0.52	0.50	0.00	1.00
Ongoing COIN Wars	Count	900	1.52	0.70	1.00	3.00
Multiple Insurgent Groups	Binary	900	0.49	0.50	0.00	1.00

[a] Variable lagged by one year.

[b] Variable logarithmized.

Table A2: Corrleation between variables for security sector, 1981-2005.

	Inf. PGMs	Semi-off. PGMs	Paramil.	Mil. Expendit. p.c.
Informal PGMs	1			
Semi-offical PGMs	0.130	1		
Paramilitary	0.181	0.279	1	
Military Expenditures p.c.	-0.0397	0.120	-0.00609	1

Figure A1: Kaplan-meier survival estimates for counterinsurgency wars with and without informal pro-government militias, 1981-2005.

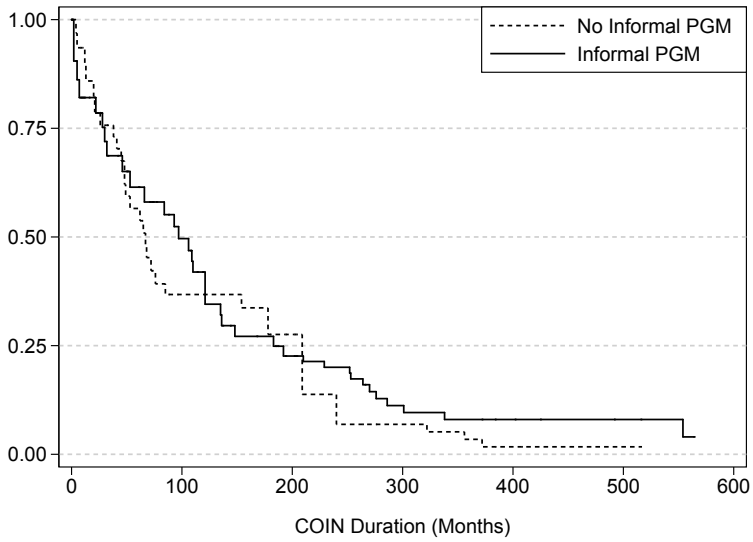


Figure A2: Kaplan-meier survival estimates for counterinsurgency wars with and without semi-official pro-government militias, 1981-2005.

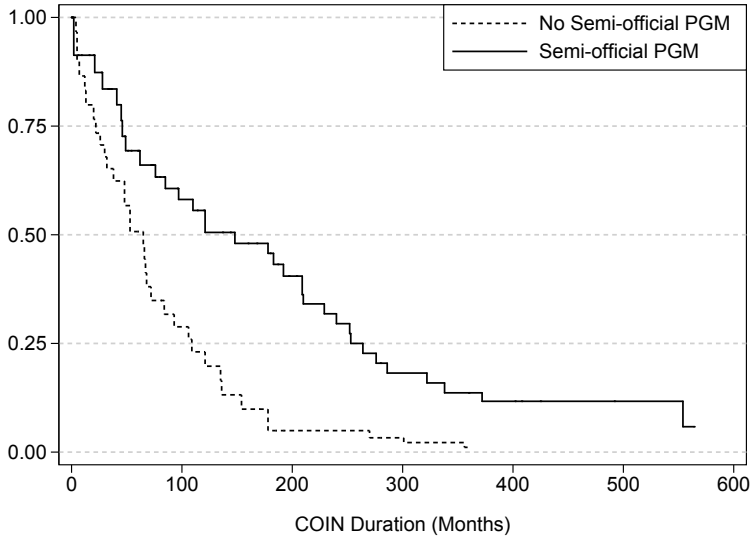


Table A3: Robustness checks for logit regression results, 1981-2005.

	(1) Coup History	(2) w/o Occupations
Informal PGMs	0.079	0.244
	(0.321)	(0.355)
Semi-official PGMs	−0.883***	−0.860**
	(0.306)	(0.341)
Military Expenditures p.c.	0.166**	0.232*
	(0.075)	(0.126)
Paramilitaries	0.092	0.331
	(0.396)	(0.443)
Multiple Insurgent Groups	0.091	0.154
	(0.259)	(0.329)
Coup Attempts		0.336
		(0.582)
Coup History	0.053	
	(0.047)	
Democracy	−0.730*	−0.514
	(0.443)	(0.558)
Population Size	−0.284**	−0.291*
	(0.130)	(0.151)
Excluded Ethnic Population	−0.063	−0.043
	(0.122)	(0.137)
Guerrilla Attacks	−0.379	−0.319
	(0.334)	(0.365)
Mountainous Terrain	−0.222*	−0.246*
	(0.121)	(0.126)
Ongoing COIN Wars	−0.090	−0.077
	(0.328)	(0.328)
Sub-Saharan Africa	−0.822**	−0.673*
	(0.394)	(0.398)
Constant	1.146	0.753
	(1.220)	(1.295)
Wald χ^2	42.62***	41.03***
Pseudo R^2	0.07	0.06
Pseudo Log-Likelihood	−201.68	−180.20
Number of clusters	55	50
Number of observations	783	726

Values are coefficients with robust standard errors in parentheses, clustered on countries.
Time polynomials are statistically insignificant and not shown.
* p<0.1, ** p<0.05, *** p<0.01

Table A4: Cox Proportional Hazard results for termination of counterinsurgency wars, 1981-2005.

	(1) PGMs	(2) Warfare	(3) Fragmentation	(4) Coup History	(5) w/o Occupations
Informal PGMs	−0.111	0.171	0.134	0.084	0.265
	(0.285)	(0.291)	(0.318)	(0.317)	(0.357)
Semi-official PGMs	−0.788***	−0.717**	−0.733***	−0.805***	−0.829**
	(0.263)	(0.303)	(0.284)	(0.306)	(0.350)
Military Expenditures p.c.			0.129**	0.156**	0.219*
			(0.065)	(0.073)	(0.129)
Paramilitaries			0.157	0.108	0.360
			(0.355)	(0.363)	(0.418)
Multiple Insurgent Groups			0.108	0.069	0.121
			(0.242)	(0.238)	(0.304)
Coup Attempts		0.250	0.318		0.377
		(0.478)	(0.523)		(0.527)
Coup History				0.051	
				(0.045)	
Democracy		−0.574	−0.722*	−0.758*	−0.644
		(0.389)	(0.390)	(0.392)	(0.517)
Population Size		−0.313**	−0.275**	−0.252**	−0.245*
		(0.125)	(0.114)	(0.120)	(0.137)
Excluded Ethnic Population		0.020	−0.032	−0.066	−0.054
		(0.121)	(0.118)	(0.113)	(0.122)
Guerrilla Attacks		−0.362	−0.399	−0.372	−0.307
		(0.311)	(0.310)	(0.305)	(0.338)
Mountainous Terrain		−0.186*	−0.183*	−0.193*	−0.200*
		(0.101)	(0.100)	(0.105)	(0.107)
Ongoing COIN Wars		−0.180	−0.182	−0.124	−0.143
		(0.297)	(0.290)	(0.315)	(0.310)
Sub-Saharan Africa		−0.846***	−0.658**	−0.709**	−0.562
		(0.309)	(0.316)	(0.359)	(0.361)
Wald χ^2	9.14**	29.11***	29.10***	27.68**	26.46**
Pseudo R^2	0.02	0.06	0.07	0.07	0.06
Pseudo Log-Likelihood	−214.11	−192.82	−186.88	−186.53	−157.98
Number of subjects	86	85	85	85	74
Number of fails	66	63	62	62	54
Number of clusters	56	55	55	55	50
Number of observations	826	801	783	783	726

Values are coefficients with robust standard errors in parentheses, clustered on countries.

* p<0.1, ** p<0.05, *** p<0.01

Table A5: Multinomial logit regression results for outcomes (loss, draw + win) of counterinsurgency wars, 1981-2005.

	(1) Coup History		(2) w/o Occupations	
	Loss	Win (+Draw)	Loss	Win (+Draw)
Informal PGMs	0.389	−0.107	0.478	0.140
	(0.533)	(0.446)	(0.563)	(0.465)
Semi-official PGMs	−1.837***	−0.517	−1.964*	−0.617
	(0.694)	(0.390)	(1.017)	(0.395)
Military Expenditures p.c.	0.091	0.201**	−0.254	0.352**
	(0.138)	(0.097)	(0.298)	(0.138)
Paramilitaries	−0.022	0.190	−0.392	0.857
	(0.739)	(0.505)	(0.846)	(0.636)
Multiple Insurgent Groups	0.054	0.129	−0.825	0.313
	(0.509)	(0.330)	(0.787)	(0.397)
Coup Attempts			−0.150	0.524
			(1.000)	(0.672)
Coup History	−0.061	0.108*		
	(0.070)	(0.063)		
Democracy	−1.987	−0.400	−0.857	−0.433
	(1.427)	(0.472)	(1.706)	(0.621)
Population Size	−0.502*	−0.246	−0.701***	−0.233
	(0.271)	(0.159)	(0.259)	(0.176)
Excluded Ethnic Population	0.036	−0.176	0.195	−0.133
	(0.187)	(0.160)	(0.300)	(0.173)
Guerrilla Attacks	0.855*	−0.813**	1.023	−0.669*
	(0.506)	(0.413)	(0.661)	(0.405)
Mountainous Terrain	−0.207	−0.205	−0.524*	−0.204
	(0.210)	(0.139)	(0.306)	(0.153)
Ongoing COIN Wars	0.160	−0.160	0.836	−0.287
	(0.536)	(0.445)	(0.650)	(0.420)
Sub-Saharan Africa	−0.354	−1.181**	−0.447	−0.922*
	(0.690)	(0.547)	(0.894)	(0.525)
Constant	2.228	0.216	4.494*	−0.787
	(2.275)	(1.502)	(2.333)	(1.541)
Wald χ^2	144.11***		168.15***	
Pseudo R^2	0.11		0.11	
Pseudo Log-Likelihood	−227.05		−198.04	
Number of clusters	55		50	
Number of observations	783		726	

Values are coefficients with robust standard errors in parentheses, clustered on countries.

Ongoing COIN wars are reference category.

Time polynomials are statistically insignificant and not shown.

* p<0.1, ** p<0.05, *** p<0.01

Table A6: Multinomial logit regression results for outcomes (loss, draw, win) of counterinsurgency wars, 1981-2005.

	(1) PGMs			(2) Warfare			(3) Fragmentation			(4) Coup History			(5) w/o Occupations		
	Loss	Draw	Win	Loss	Draw	Win	Loss	Draw	Win	Loss	Draw	Win	Loss	Draw	Win
Informal PGMs	0.360	0.120	−1.284*	0.377	0.569	−1.274	0.395	0.529	−1.225	0.535	0.447	−1.486*	0.488	0.572	−0.950
	(0.488)	(0.434)	(0.680)	(0.504)	(0.528)	(0.856)	(0.500)	(0.531)	(0.826)	(0.545)	(0.498)	(0.896)	(0.571)	(0.570)	(0.907)
Semi-official PGMs	−1.815***	−0.195	−1.224**	−1.582**	0.295	−1.857**	−1.562**	0.220	−1.800**	−1.534**	0.189	−1.836***	−1.728*	0.097	−2.278***
	(0.532)	(0.467)	(0.567)	(0.676)	(0.508)	(0.824)	(0.683)	(0.525)	(0.737)	(0.696)	(0.541)	(0.700)	(0.884)	(0.524)	(0.776)
Military Expenditures p.c.				0.092	0.101	0.362**	0.090	0.107	0.376*	0.026	0.151	0.316*	−0.262	0.331*	0.553
				(0.157)	(0.116)	(0.163)	(0.166)	(0.109)	(0.210)	(0.163)	(0.145)	(0.171)	(0.310)	(0.180)	(0.394)
Paramilitaries							−0.124	0.282	0.167	−0.033	0.215	−0.503	−0.459	0.615	1.414
							(0.700)	(0.526)	(1.197)	(0.731)	(0.527)	(0.925)	(0.847)	(0.661)	(2.026)
Multiple Insurgent Groups							−0.220	0.364	−0.274	−0.074	0.280	0.147	−0.832	0.606	−1.306
							(0.531)	(0.395)	(1.031)	(0.522)	(0.443)	(0.804)	(0.771)	(0.440)	(1.839)
Coup Attempts				−0.277	−0.323	2.963**	−0.223	−0.433	3.019**				−0.128	−0.439	3.297**
				(1.029)	(1.008)	(1.197)	(1.024)	(1.039)	(1.358)				(0.999)	(1.096)	(1.450)
Coup History										−0.094	0.053	0.274***			
										(0.072)	(0.098)	(0.106)			
Population Size				−0.571**	−0.267	−0.581	−0.582**	−0.260	−0.614	−0.618**	−0.241	−0.548	−0.778***	−0.295	−0.331
				(0.238)	(0.187)	(0.582)	(0.241)	(0.186)	(0.610)	(0.248)	(0.192)	(0.600)	(0.266)	(0.192)	(0.559)
Excluded Ethnic Population				0.042	−0.029	−0.329	0.062	−0.044	−0.312	0.088	−0.092	−0.480	0.207	−0.090	−0.221
				(0.170)	(0.186)	(0.498)	(0.180)	(0.187)	(0.519)	(0.199)	(0.167)	(0.417)	(0.303)	(0.170)	(0.511)
Guerrilla Attacks				0.648	−0.460	−2.354***	0.690	−0.508	−2.316**	0.720	−0.505	−1.828*	0.992	−0.442	−1.792*
				(0.533)	(0.481)	(0.845)	(0.552)	(0.482)	(0.977)	(0.557)	(0.481)	(0.938)	(0.699)	(0.456)	(0.984)
Mountainous Terrain				−0.160	−0.359**	0.191	−0.162	−0.380**	0.180	−0.134	−0.382**	0.128	−0.529*	−0.396*	0.076
				(0.194)	(0.177)	(0.242)	(0.207)	(0.182)	(0.248)	(0.207)	(0.184)	(0.220)	(0.312)	(0.231)	(0.246)
Ongoing COIN Wars				0.136	−0.240	0.007	0.148	−0.272	−0.002	0.107	−0.189	0.292	0.932	−0.194	−0.128
				(0.618)	(0.494)	(0.900)	(0.608)	(0.502)	(0.914)	(0.603)	(0.583)	(0.919)	(0.727)	(0.525)	(0.759)
Sub-Saharan Africa				−0.086	−0.261	−3.995	−0.062	−0.314	−3.944	0.005	−0.349	−4.037*	−0.380	−0.361	−3.242
				(0.731)	(0.510)	(2.720)	(0.701)	(0.519)	(2.664)	(0.679)	(0.582)	(2.293)	(0.898)	(0.614)	(2.616)
Constant	−2.461***	−3.303***	−2.746***	2.354	−0.226	2.508	2.600	−0.588	2.676	2.982	−0.889	2.638	4.998**	−1.014	−0.959
	(0.461)	(0.463)	(0.763)	(2.278)	(1.800)	(4.930)	(2.242)	(1.792)	(4.774)	(2.248)	(1.882)	(5.105)	(2.465)	(1.807)	(3.730)
Wald χ^2	41.21***			462.27***			805.72***			570.21***			914.98***		
Pseudo R^2	0.06			0.14			0.15			0.15			0.17		
Pseudo Log-Likelihood	−281.45			−241.05			−240.35			−240.27			−205.79		
Number of subjects	56			55			55			55			50		
Number of fails	826			783			783			783			726		

Values are coefficients with robust standard errors in parentheses, clustered on countries. Ongoing COIN wars are reference category.

Time polynomials are statistically insignificant and not shown.

Democracy dummy is omitted in analysis to avoid misleading results due to low empirical variation.

* p<0.1, ** p<0.05, *** p<0.01