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Pro-government militias and civil war termination

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Abstract

Why do governments choose to fund pro-government militias (PGMs) if doing so could extend costly civil conflict? While PGMs are active in a majority of civil wars, their impact on conflict termination remains poorly understood. We argue that the choice to fund PGMs is a strategic one for states and part of their efforts to influence wartime dynamics and conflict termination. We hypothesize that PGMs' impact on conflict termination is conditional on whether they are government funded. Government-funded PGMs help states to ward off costly negotiations and encourage the rebellion's gradual dissolution. Using competing risks analyses on civil wars ending between 1981 and 2007, we find robust evidence that PGM funding affects conflict outcomes.

Keywords

civil war, pro-government militias, conflict termination, quantitative methods

Pro-government militias—PGMs, armed groups that are pro-government in nature but independent of state security forces—are active participants in a majority of civil wars.[1] While PGMs such as the Eelam People's Democratic Party (EPDP) in Sri Lanka and the *rondas campesinas* in Peru played critical counterinsurgency roles, PGMs also bring risks to governments. They not only undermine governments' monopoly of violence, but they may also render civil war settlements elusive. As such, the prevalence of PGMs is puzzling. Given the risks, why do governments permit PGMs to function within their territories? More puzzling, perhaps, is why governments not only allow but directly fund certain PGMs. We present a theory and analysis of how governments' strategic choice to fund PGMs has direct implications for the likelihood that governments achieve their preferred war outcomes.

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A growing body of research reveals that PGMs are associated with an increased risk of civil war onset (Carey, Mitchell and Lowe, 2012), higher levels of violence against civilians (Mitchell, Carey and Butler, 2014; Carey, Colaresi and Mitchell, 2015; Koren, 2017), a higher incidence of civil war recurrence (Steinert, Steinert and Carey, 2018) and longer-lasting conflicts (Aliyev, 2020). Countries with the highest counts of PGMs include Indonesia (37 PGMs), Sudan (21) and the Philippines (19), all of which have experienced multiple episodes of intrastate violence over the past several decades (Carey, Mitchell and Lowe, 2012). With that said, empirical investigations into PGMs' effect on civil war termination have been limited. From an academic and policymaking perspective, however, a nuanced look at how PGMs influence civil war termination is warranted. If PGMs make conflict resolution more difficult, domestic and international actors need to update their peacemaking strategies accordingly.

To address how PGMs shape civil war outcomes, we first recognize that there are important differences across PGM goals and capacity. Specifically, we argue that the effect of PGMs on civil war termination is conditional on PGMs' support from governments. By funding PGMs, governments overcome coordination problems with militias and better capitalize on the strategic benefits that PGMs bring to war fighting efforts. The choice to fund and maintain tight linkages with PGMs gives governments a degree of control over PGMs and the ability to mitigate many of the risks of having independent armed actors within their territories. In the Sri Lankan conflict with the LTTE (Liberation Tigers of Tamil Eelam) the Sri Lankan government strategically funded and supported the EPDP as a means of undermining rebel capacity and regaining control of key territories (DeVotta, 2011). The Fujimori administration in Peru supported the *rondas campesinas*, a civilian defense force, to augment conventional military efforts against Sendero Luminoso (Peic, 2014). Both militias received financial support from their governments, thereby giving their respective governments greater ability to harness the strategic benefits of the militias.[2] We expect that PGMs such as the EPDP and *rondas campesinas* who receive government funding will, on average, not only be particularly adept at undermining rebel capabilities but will also affect the ways in which wars terminate.

Second, we recognize that civil wars can and do end in different ways including negotiated settlement, government or rebel victory, and fizzling/low activity (see, e.g. Fortna, 2015). With the range of possible civil conflict outcomes in mind, we posit that government-funded PGMs serve two functions for governments: (1) they help governments ward off the costly process of committing to negotiated settlements; and (2) they deter efforts by armed opposition groups and push rebellions to fizzle. Negotiated settlements are suboptimal outcomes for governments insofar as settlements often require costly concessions to the opposition.[3] Relative to government victory or the rebellion fizzling, negotiated settlements are less preferable from the perspective of governments. Expediting the descent of rebellions into low activity, on the other hand, is one of the best possible outcomes for governments insofar as it allows them to avoid the ongoing costs of conflict as well as the costs of concessions in negotiations. Thus, government-funded PGMs serve as a strategic tool for governments who hope to minimize both the accumulating costs of conflict and the risk of suboptimal conflict outcomes.

In what follows, we review scholarship on pro-government militias, specifically focusing on how PGMs create security risks as well as strategic benefits for governments. We also highlight how a closer look is needed at the nexus between PGMs and civil war termination. Second, we develop our theoretical expectations regarding the effects of PGMs—specifically, government-funded PGMs—on conflict outcomes. Third, we present quantitative analyses, including a novel use of inverse probability of treatment weighting (IPTW) to directly tackle potential problems stemming from the non-random assignment of government funding for PGMs. The results offer support

for our theory: we find that government-funded PGMs bring strategic benefits to governments by expediting the fizzling of rebellions and by warding off early negotiations and concessions to rebel groups.

Pro-government militias in civil wars. Research on civil wars conventionally models the state as a unitary actor and civil war as a dyadic conflict between a government and rebel groups. More recent scholarship challenges the unitary actor assumption and recognizes that many civil wars see additional armed groups—such as pro-government militias—working parallel to and independent of state security forces (see, e.g. Carey, Mitchell and Lowe, 2012; Mitchell, Carey and Butler, 2014; Jentzsch, Kalyvas and Schubiger, 2015).[4] Defined as groups that are pro-government or sponsored by a government, are not part of regular security forces, are armed, and have some level of organization (Carey, Mitchell and Lowe, 2012, 250), PGMs have marked implications for civil war dynamics.[5,6]

First, PGMs affect the level and scope of wartime violence. In Sierra Leone, for example, the pro-government Civil Defense Forces "were among the main perpetrators of violence against civilians during the country's civil war" (Jentzsch, Kalyvas and Schubiger, 2015: 4). On the one hand, Mitchell, Carey and Butler (2014) posit that PGMs engage in higher levels or more extreme types of violence than state militaries because states are either unwilling or unable to control militia behavior. If PGMs are a byproduct of state weakness, states may be unable to limit the violent actions of militias. Alternatively, states may actually make the strategic decision to outsource violence to militias. Aliyev (2016) notes that state-manipulated militias often adopt hit-and-run tactics against civilians. Looking more closely at the process of outsourcing violence, Carey, Colaresi and Mitchell (2015) posit that some states use informal PGMs, in particular, to avoid government liability for violence against civilians. Koren (2017) elaborates on the strategic nature of government-sanctioned PGM violence, writing that PGMs:

> "tip the balance" for perpetrating strategic mass killing by lowering anticipated government costs in at least three respects: by providing plausible deniability; by freeing the state's official military forces to handle other external and internal threats; and by offering lower costs of formation or cooptation (in comparison to the state's official military force). (462)

Koren's (2017) analyses find that PGMs are associated with an increased likelihood of state-led mass killing. In spite of robust theoretical and empirical evidence for the outsourcing of violence to PGMs, Eck (2015) pointedly notes that pro-government militia violence often coincides with government violence against civilians and as such, "plausible deniability may not be the mechanism driving government-sponsored militia formation" (p. 5).[7]

Second, research identifies the challenges of maintaining post-war peace in countries with PGMs. Steinert, Steinert and Carey (2018) find that conflicts with PGMs recur at higher rates than those without PGMs. Theoretically, PGMs increase the hazard of conflict recurrence, because PGMs and: "militia members enjoy benefits that are jeopardized during times of peace" (Steinert, Steinert and Carey, 2018: 2). Moreover, PGMs are typically excluded from peace negotiations and post-conflict reintegration efforts and are often incentivized to spoil the peace. While Steinert and co-authors are specifically focused on conflict recurrence, their research speaks to a broader consequence of PGMs for civil war dynamics: PGMs often benefit from the continuation of conflict and thus render peace efforts more tenuous. In the Colombian civil war, for example, the

government initially sanctioned the AUC or Autodefensas Unidas de Colombia and subsidiary paramilitary organizations to limit insurgents' territorial expansion, recruitment efforts, and military capacity. These PGMs partnered with private landowners and drug cartels, becoming "illegal armies in the service of private interests" (Arnson, 2005: 2). As the paramilitaries sought continued conflict for monetary gain, the Colombian state faced a far more difficult peace process, first pursuing negotiations with former paramilitary allies and delaying overall conflict resolution with the guerrillas as a result.

Third, and related to the previous points, PGMs also have implications for the duration of civil wars. Aliyev (2020) conceptualizes pro-government militias as veto players given PGMs' vested interests in conflict continuation, arguing that "Unlike other veto players, [PGMs] are much harder to bring to a negotiation table and it is also harder for militias to disengage from violence" (p. 9).[8] Aliyev (2020) explains that PGMs directly benefit from the continuation of war, because war enables revenue flows via illicit activities, expanded territorial control, and political influence. As such, he writes: "the end of conflicts endangers both the PRMs' collaboration with their patrons and their sources of revenue" (Aliyev, 2020: 6).

The existing literature on PGM violence and behavior creates a puzzle: given the risks associated with pro-government militias, why do governments choose to diffuse their monopoly of violence to alternative armed groups? More pointedly, why do governments go as far as to fund PGMs, and how does this choice in turn influence the termination of countries' civil wars? In spite of the growing literature on PGMs, their effect on conflict termination has received limited attention. Yet evidence from cases such as Peru, where the *rondas campesinas* played a critical role in finally undermining the strength of and support for the Sendero Luminoso,[9] and East Timor, where various militias and vigilante groups fulfilled critical strategic and intelligence roles for the Indonesian government,[10] indicates that PGMs affect conflict outcomes. To address the ways in which PGMs influence the termination of civil war, our theoretical framework takes into account both the risks of outsourcing violence and the strategic benefits of doing so. In the next section, we first address how PGMs, in the aggregate, affect the prospects for civil war termination. Then, we move to a more nuanced theoretical treatment of how government funding of PGMs—a key source of variation across PGMs—has direct and meaningful implications on the ways in which civil wars involving such groups conclude.

PGMs, government funding, and conflict termination. Both direct and indirect support of pro-government militias is risky for governments. First, PGMs undermine a defining characteristic of sovereign states: their monopoly of violence. By allowing non-state actors to use violence in pursuit of government aims, states threaten their very legitimacy and control. Second, PGMs may develop their own conflict aims (Staniland, 2015). Aliyev (2020: 5) suggests that "as [militias'] strength increases vis-à-vis the government, such as the case of Shia militias in Iraq or volunteer battalions in Ukraine, militias might tacitly challenge the state and ignore or disregard the government". Third, PGMs sometimes act outside the authority of governments, and their wanton use of violence against civilians, for example, may turn public sentiment against governments. Lastly, PGMs are risky when one recognizes that the expansion of the number of civil war actors renders peace processes more intractable (Cunningham, 2006).

Based on the aforementioned risks, we derive initial expectations on how PGMs—in the aggregate—affect conflict outcomes. First, PGMs may undermine governments' efforts to *win* civil wars. In many cases, PGMs' behavior, aims, and loyalty cannot be controlled over time. In Colombia, paramilitary groups gradually turned their efforts away from government aims to drug trafficking and independent economic pursuits (Arnson, 2005; Acemoglu, Robinson and Santos, 2013).

Relatedly, PGMs may have their own interest in continuing conflict if their funding is contingent on the existence of an armed opposition; this is especially true for militias that are self-funded via plunder, loot, or criminal pursuits that exist only as conflict economies. Although PGMs share many goals with their governments, they are aware that their own strategic interests are only served as long as conflict continues (Aliyev, 2020). In sum, a first glance at PGMs and conflict termination suggests that PGMs will, on average, be counterproductive to government victories.

Second, our theoretical framework emphasizes that, despite the risks of delegating security to PGMs, governments also make strategic gains from this choice. For example, growing evidence points to PGMs' crucial counterinsurgency role (see, e.g. Eck, 2015; Lyall, 2010; Saab and Taylor, 2009). Estancona et al. (2019) formally model the conditions under which governments take the risk of supporting PGMs, positing that governments support PGMs to preempt shifts in power that favor rebel groups. In locations where rebels are attempting to expand their power via territorial control and/or civilian support, governments have strategic incentives to organize and support PGMs. In the context of civil wars, governments experience strategic gains from PGMs, such as information provision and capacity building, that may outweigh the risks of supporting the groups. As such, PGMs' many functions—expanding territorial influence, gathering localized knowledge, limiting rebels' access to human and material resources, and countering rebel offensives—undermine rebels' capacity to *win*. These benefits imply that the introduction of PGMs positively shifts governments' capacity vis-à-vis the rebels and alters the course of conflict.

Critically, however, our theory recognizes that governments' preferences for conflict outcomes fall along a continuum rather than a war–peace dichotomy (Fortna, 2015). Conflict actors most prefer to win; outright victories for either governments or rebels, however, are increasingly rare. Therefore, warring parties make strategic choices to maximize the likelihood of suboptimal but relatively preferred outcomes. From the perspective of states, the second best outcome short of victory is for a rebellion fizzle (fade into inactivity) and for opposition groups to become inactive without governments needing to yield concessions to them. Fortna (2015: 524), for example, discusses how Peru's conflict ended in such a way that the rebels still existed but were "not causing much trouble at this low level of violence". A less optimal outcome still for governments than victory and fizzling is a negotiated settlement. Negotiations, by their very nature, involve concessions to rebels, may signal state weakness, and tend to be unstable (Kaplow, 2016; Walter, 1997). Finally, the worst outcome for governments is to experience defeat at the hands of rebel groups. As illustrated in Figure 1, PGMs can be useful to governments fighting civil wars because in comparison with conflicts without PGMs they more frequently fizzle into low activity. However, conflicts with PGMs are also less likely than conflicts without to end in state victory. Figure 1 illustrates the frequency of each type of conflict termination for conflicts with and without PGMs. Evident variation in the manner of termination presents an opportunity for investigating PGMs' influence on how conflict ends.

Before further theorizing about PGMs' effects on conflict outcomes, it is crucial to recognize that PGMs are not homogenous. While much of the extant literature treats PGMs as uniform actors, their different characteristics have important implications for understanding how they affect conflicts and conflict outcomes. Qualities such as PGM funding and the degree of monitoring from the state influence the degree to which militias align with states' actions and goals. Some PGMs—approximately 40%—receive financial support from governments and thus maintain linkages to the state (Carey, Mitchell and Lowe, 2012). Groups such as the Civil Defense Organization in Angola and the Death Squads in El Salvador received material support from their governments. Other PGMs are only loosely affiliated with governments, making them self-reliant with respect to funding and less closely bound to governments' efforts. The National Patriotic Front of Liberia and the

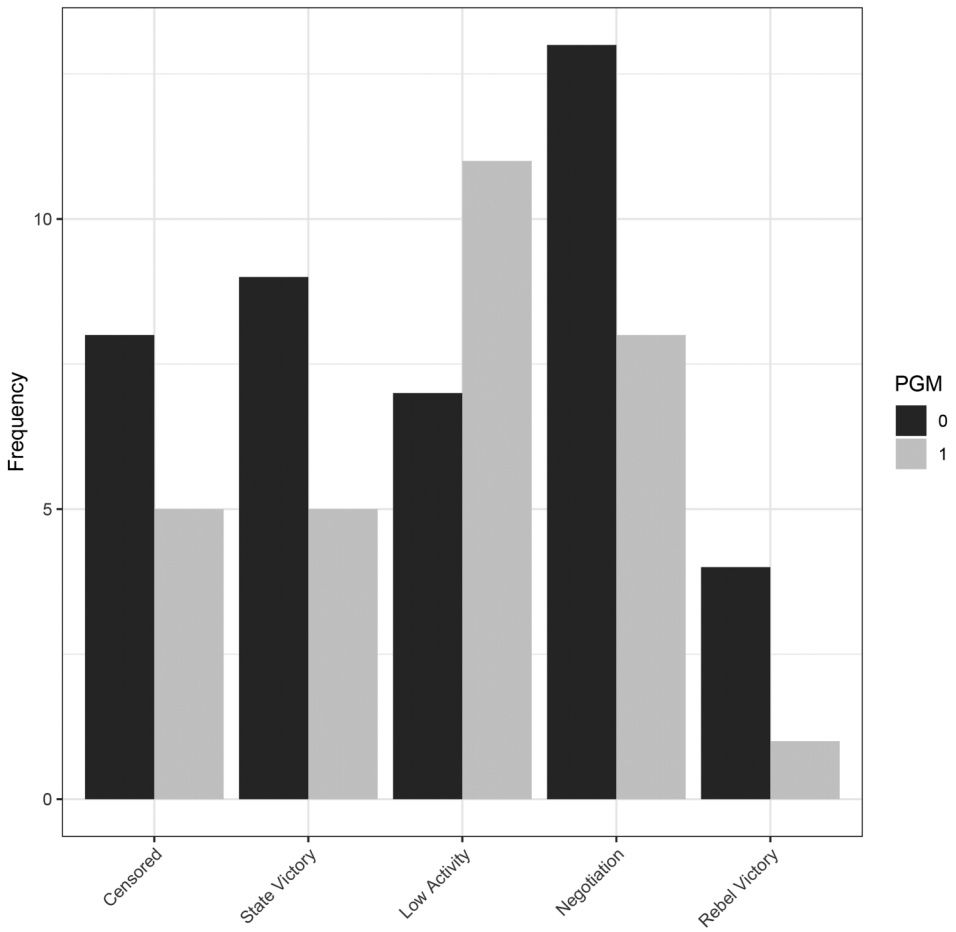

Figure 1. Type of conflict termination by pro-government militia presence.

anti-Maoist vigilantes in Nepal, for example, funded their own efforts through sources such as foreign support, crime, drugs, looting, corporations, villager support, and/or other forms of self-maintenance.[11] We posit that such variation in funding and state control has direct implications for the ways in which PGMs affect conflict termination. In brief, pro-government militias' influence on conflict outcomes varies across PGMs and, more specifically, according to states' strategic choice to fund PGMs.

Government-funded PGMs and conflict termination. Our theory rests on the assumption that states are rational actors that have preferences not only over the course of a conflict but also over its conclusion. When considering a diverse range of strategies, including directly supporting militias financially, subsidizing PGM activity is one way for states to alter the course of conflict in their favor. Additionally, we assume that governments walk a delicate line when deciding to support PGMs. While PGMs carry risks as elaborated above, states fund them to advance security aims and avoid the costs of unfavorable conflict outcomes. The Sri Lankan state, for example,

supported the EPDP to help counter the LTTE and reduce their territorial control, eventually leading to the rebels' military defeat (DeVotta, 2011). Supporting the EPDP enhanced government capacity vis-à-vis the LTTE; moreover, funding the EPDP granted the Sri Lankan government greater control over the paramilitary organization and helped maximize the strategic gains for the state.

How does PGM funding status condition PGMs' effect on civil war termination? The logic of bargaining theory suggests that governments would prefer to achieve their ideal outcome without paying the costs of conflict; however, once conflict begins, governments pursue strategies to expedite their preferred outcome. We argue that governments weigh the benefits and costs of different security decisions such as supporting PGMs against the more diffuse costs of ongoing armed rebellion. Governments evaluate the extent to which the risks of outsourcing violence to PGMs—lost control, militia violence, proliferation of conflict actors—are offset by the potential increase in state capacity relative to rebels that these additional armed actors provide. If PGMs are likely to help governments achieve their wartime aims by reducing governments' ultimate costs of conflict, then strengthening strategic ties to PGMs by supporting them financially becomes an attractive and prudent decision.[12]

More specifically, we identify two ways in which government-funded PGMs help to secure more favorable outcomes for governments. Government-funded PGMs, relative to self-funded PGMs, are better suited to reliably providing both information and added capacity to governments. As noted previously, while all PGMs may enhance governments' information and capabilities, we argue that these two functions are more pronounced when militias receive government funding. Governments have tighter linkages to and leverage over PGMs that receive state support; the control that is amplified by government funding makes the information- and capacity-enhancing role of government-funded PGMs more reliable across time.

Regarding information provision, funding generates stronger linkages, communication, and co-dependence such that government-funded PGMs are more consistent sources for counterinsurgency information. In the case of East Timor, the Indonesian military directly "relied on the use of locally-recruited paramilitary 'teams' with knowledge of regional dialects and terrain" and sought to expand both the size and role of PGMs in East Timor as the conflict persisted (Kammen, 2001: 159). The Garda Paksi, one of many government-funded PGMs in East Timor, was described as a group of "Intel agents" for the Indonesian government by East Timor's Bishop, Carlos Ximenos Belo (Robinson, 2001: 312). In some cases, governments and militaries decide to fund and support militias specifically because of the information provided by such groups. In Nigeria, the Civilian Joint Task Force was recruited—at least in part—from former rebels who had local knowledge and would funnel that knowledge to the Nigerian military (Smith, 2015). In Mali, a member of Ganda Iso—a group which received some support from the Malian military[13]—acknowledged that he shared information with the military on the location of "terrorists" (Boisvert, 2015). Taken together, theory and case evidence reveal not only that PGMs yield information benefits, but also that these benefits are both more consistent and more pronounced when PGMs are linked to governments via funding.

Beyond the critical information-enhancing role that government-funded PGMs often play, the strategic choice to fund PGMs also brings capacity-enhancing benefits to governments. Indeed, governments may view funding PGMs as a cost-effective option to enhance their capacity, relative to spending resources on conventional forces (Dowdle, 2007: 168). Carey and Mitchell (2016: 5) write that militias "promise substantial efficiency gains in finding the insurgents", an effect that we argue will be especially pronounced when governments have at least some leverage over PGMs via funding. Iraq's Popular Army, although not strong in a conventional sense, filled gaps, provided oversight, and served as "a principal instrument for containing the Shi'is" (Bengio, 1985, 11).[14]

More recently, Chechen militias were critical in suppressing insurgent attacks and were, by some accounts, even more effective than their Russian counterparts (Lyall, 2010; Peic, 2014).

In East Timor, the evolution of the Indonesian military's strategy reveals that PGMs played a critical—and planned—role in government offensives against East Timorese fighters. In fact, the Indonesian military deliberately expanded the role of PGMs as part of its broader military strategy in the region during the 1990s, and Indonesian military officers acknowledged "that they were providing weapons to the 'rampaging gangs'" (Kammen, 2001: 183). The Garda Paksi, for example, helped the military with sweeps of local areas to arrest opponents (Kammen, 2001). The Ninjas, another government-funded PGM, were tasked with targeting local populations with terror and violence; the group was well equipped with supplies ranging from automatic pistols to night binoculars to knives and axes, thus allowing them to target the local populace (Robinson, 2001: 308). More broadly, many militias were intricately linked to the military and received direct military supervision (Kammen, 2001), thus enhancing the relative capabilities and reach of the Indonesian military in East Timor.

In sum, by providing information and strengthening governments' relative capacity, government-funded PGMs help governments maintain the upper hand during conflict. While all PGMs have the potential to share information with governments and enhance their capacity, government-funded PGMs are uniquely placed to consistently and reliably serve one or both of these functions. Because PGMs pose risks to governments if they develop their own aims, the strategic choice to fund PGMs gives governments the ability to more effectively control and leverage the strategic benefits of such armed groups. In what follows, we connect this logic to specific conflict outcomes and argue that the choice to fund PGMs has implications for how conflicts evolve and end.[15]

Negotiated settlements. Government-funded PGMs increase governments' ability to ward off one of their least preferred outcomes: granting concessions to rebel groups via negotiated settlements. Given that states are already involved in the costly contest of conflict, they would prefer an opposition group to fade away or to continue low-grade fighting than to have to yield costly political, economic, and security concessions to opposition groups at the negotiating table. While all PGMs potentially undermine rebel capabilities and limit rebels' ability to push for concessions, we argue that state-funded PGMs—who are inherently more closely affiliated to governments—can be relied upon to best support state efforts and minimize the risks involved in employing them. We argue that government-funded PGMs reduce the probability that rebel groups can gain or maintain the upper hand in conflict; in short, they reduce rebels' capacity to lock a conflict into a mutually hurting stalemate and push governments to the negotiating table.[16] Moreover, government-funded PGMs share the cost of fighting rebels, making ongoing conflict relatively less costly for governments themselves, and thus reducing incentives to turn to settlement as a way out of conflict.

Hypothesis 1: Conflicts with government-funded PGMs, on average, have a decreased risk of ending in negotiated settlements when compared with those conflicts in which government-funded PGMs are not present.

Rebellion fizzles. We further expect that government-funded PGMs expedite the fizzling or fading of rebellions, an expectation which directly follows from the information- and capacity-enhancing effects of funding PGMs. Well-supported PGMs make violence a costlier option for rebel groups, and governments' closer affiliation with government-funded PGMs also allows them to more fully leverage PGMs' local knowledge. Together, then, governments and government-funded PGMs are

more likely to undermine the opposition's cohesion and prompt group fragmentation and dissolution. In this situation, government-funded PGMs make insurgencies fade more quickly; the costs and challenges of fighting against both a government and a PGM who is in close coordination with the government may become too much for a rebel group to sustain intensive fighting.

At the same time, funding PGMs probably remains an insufficient tactic for governments to achieve victory for two reasons. First, government-funded PGMs recognize that conflict must continue for the source of their funding to continue; therefore, they have incentives to counter rebel threats while also making sure that they do not fully defeat the opposition (Aliyev, 2020). Second, states may fund PGMs precisely when outright victory seems unlikely. In these cases, governments are willing to sacrifice their monopoly on violence to protect against much less favorable conflict outcomes. While non-funded PGMs also undermine rebels' chances of victory, states incur the least risk by funding PGMs and maximizing their control and monitoring capacity over PGMs. The *rondas campesinas* in Peru, for example, proved particularly effective in undermining Sendero Luminoso's influence among their rural support base, gradually limiting Sendero's territorial reach and preventing continued conventional military efforts (Degregori, 1998). The *rondas campesinas* did not tip the scales to government victory, but they nevertheless rooted out the opposition in a way that all previous efforts had not. While "fizzling" is not the most optimal outcome for governments insofar as it does not lead to a clear defeat of the opposition, conflict fizzling is advantageous in that it allows governments to avoid defeat and costly concessions while also limiting rebels' strength.

Hypothesis 2: Conflicts with government-funded PGMs, on average, have an increased risk of rebel groups becoming inactive (rebellion fizzling owing to low activity) than those conflicts in which government-funded PGMs are not present.

In sum, states that anticipate being unable to fully defeat rebels must consider how best to tip the scales in their favor and decrease the likelihood of detrimental outcomes. Pro-government militias reduce rebels' capacity by providing additional military strength to the state and serving as a localized information-sharing mechanism. However, PGMs may have their own conflict aims, particularly when their funding is dependent on activities such as looting or they are supported by other actors. For example, the Mai Mai community defense militias in the Kivu region of the DRC competed with local forces for access to mines and mining profit, prolonging the conflict in this region even after the 2003 peace (Autesserre, 2007). Funding PGMs allows governments to increase militias' capacity to directly fight against the rebels and maintain greater control over PGM activities by removing groups' need to seek alternate support. Thus, we expect that government-funded PGMs are uniquely equipped to influence the manner of civil war termination, making state-preferred outcomes—such as pushing a rebellion into low activity—more likely while minimizing the risk of and extending the time until less favorable outcomes—specifically, negotiated settlements.

Research design. To test our hypotheses, we bring together information from several datasets. Data for our main explanatory and outcome variables come from two sources: the Uppsala Conflict Data Program (UCDP) Conflict Termination data (Kreutz, 2010) and the Pro-Government Militias Database (PGMD; Carey, Mitchell and Lowe, 2012). The UCDP Conflict Termination Dataset provides the start and end dates of intrastate conflict episodes and their manner of termination for conflicts occurring between 1946 and 2007. The PGMD Summary data contains information about the formation and ending years, funding, training, and official status of pro-government militias. When merged together, these data give us a global conflict/year structure that covers the

time frame 1981–2007.[17] Our data exclude colonial conflicts and coups,[18] providing a total of 665 observations of 99 conflicts.[19]

Given our theoretical expectations—that government-funded PGMs help to ward off negotiated settlements and expedite conflict fizzling—we model the effect of government-funded PGM participation on the *timing* until different conflict outcomes using a competing risks analysis. Competing risks models allow us to estimate the subhazard of terminal events of interest —negotiation and low conflict activity—while accounting for other possible conclusions (Fine and Gray, 1999). These models, originating from medical studies, take into account the possibility that subjects—in our case, conflicts—may exit the data owing to several possible events rather than one outcome, as Cox proportional hazards or parametric survival models assume. We can thus estimate cause-specific (owing to negotiated settlements or low activity) hazards of the instantaneous risk of conflict termination. Because our models include yearly observations within a given conflict, we cluster our standard errors at the conflict level.[20]

Our unit of analysis is the conflict-year; in each year a conflict can experience a terminal event or be censored for that particular year to continue in the next. Censoring indicates that none of the possible events are observed at time t: we lack any information that the conflict has ended in a particular manner during this specific year. Our dependent variable is the duration of each conflict. Specifically, the outcome of interest measures the time in years until a given outcome happens while accounting for possibility that a conflict can end in multiple different ways. For our competing risks analysis, we thus code not only the year conflict ends but also the way in which it ends: in government victory, rebel victory, negotiation, or "low activity" indicating that the rebellion has fizzled and rebels have failed to continue fighting.[21] Using a duration structure for the dependent variable and analyses allows us to directly consider the relationship between government-funded PGM presence and the length of conflict until a specific outcome. The coding reflects our theoretical framework, in which states are concerned not only with the duration of conflict but also with its manner of termination.

Our primary independent variable is PGMs' funding source. Our expectations, as outlined in our hypotheses, examine how states' decisions to fund PGMs influence the timing until particular conflict outcomes. To test these expectations, we create a categorical variable for the funding status of PGMs (if any are present). For data on PGM funding, we use the PGMD's "support" variable. We code any PGM that is funded solely by the "domestic government", "military" or "domestic government and military" as government-funded.[22] We aggregate this information to the conflict level by creating another categorical variable that is assigned a 2 if the conflict-year involves any solely government-funded militias, 1 if self-funded PGMs are present in the conflict-year, and 0 if no militias are present.[23,24] Because our theory focuses on the impact of states' decisions to fund militias to deter rebel successes rather than about the effect of each type of PGM funding, this straightforward coding is designed to capture the distinction between conflicts in which states have chosen to fund PGMs vs. other civil wars.

Beyond our primary explanatory variable, we include a number of confounding variables that may influence the duration and termination of conflicts. At the state level, we control for GDP, population, and regime type. The first two variables are coded using the Expanded GDP data (Gleditsch and Ward, 1999); as is standard, we use the natural log to minimize the influence of extremely high values. Regime type is taken from the Polity IV data (Marshall, Gurr and Jaggers, 2015). To account for concerns that yearly measures of these variables may introduce post-treatment bias into our models, we use the values of GDP, population, and Polity from each

conflict's starting year.[25] Next, we include data from the UCDP termination dataset (Kreutz, 2010) about the nature of the incompatibility between conflict actors. The incompatibility variable allows us to account for any differences in duration and termination tied to rebels' broad goals: fighting over territory vs. over regime change.[26] Finally, we include a dummy variable for whether or not the conflict occurred prior to the end of the Cold War, as previous civil war literature suggests that intrastate conflicts during vs. after the Cold War may differ in their technologies and international involvement (Kalyvas and Balcells, 2010).

Results

The results of the competing risks analyses are presented in Table 1. Within each model, the baseline comparison is conflicts without any PGM participation. As is standard for competing risks models, Table 1 reports the subhazard ratios for each outcome. If the reported subhazard ratio is less than 1, an increase in the independent variable is associated with a decrease in the likelihood of the outcome in question. Subhazard ratios that are greater than 1 indicate that the outcome in question becomes more likely as the independent variable increases.

Table 1 shows robust support for our hypotheses. For our first hypothesis, in which we posit that government-funded PGMs decrease the hazard of negotiated settlements, the direction of the subhazard ratio is as expected and is statistically significant. The presence of government-funded PGMs is associated with a reduced risk of a conflict ending in negotiation; this effect is not observed for non-government-funded PGMs. Therefore, the findings suggest that pro-government militias that receive government funding are effective in helping states ward off negotiations and costly concessions to rebels. However, while government-funded PGMs decrease the subhazard of negotiation relative to conflicts without PGMs, conflicts in which militias do not depend on government funding are more likely to end in negotiated settlements than conflicts without any PGMs. The results suggest that government funding uniquely enables PGMs to effectively provide local

Table 1. Competing risks, government funded pro-government militias (PGMs), 1981–2007.

	Negotiation	Low activity (fizzle)
PGMs, no government funding	2.661	1.05×10^{-10}***
	(1.812)	(0.000)
Government-funded PGMs	0.284*	3.933**
	(0.184)	(1.930)
Land incompatibility	0.658	2.216
	(0.221)	(1.380)
Ln(Population)	0.756	1.950*
	(0.169)	(0.621)
Ln(GDP)	1.306	0.613
	(0.249)	(0.164)
Polity	1.042	0.910*
	(0.031)	(0.037)
Cold War	1.295	2.123
	(0.587)	(1.042)
N	665	665

Exponentiated coefficients; standard errors in parentheses.*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

information and limit rebel capacity, preventing rebels from gaining sufficient strength to spur government capitulation or concessions.[27]

We similarly find support for Hypothesis 2. Government-funded PGMs are associated with an increased likelihood that a conflict will fizzle. The effect is significant at the $p < 0.01$ level and is substantial: conflicts with government-funded PGMs end in low activity at roughly four times the rate of conflicts without PGMs. The results indicate that conflicts with government-funded PGMs will, on average, have a much higher risk of fizzling or fading; the conflicts thus end without the state facing the political consequences of negotiation and while avoiding defeat at the hands of a rebel group. Pro-government militias that fund themselves by other means do not have this effect; rather, their presence is associated with a very low risk of conflicts fizzling. Thus, we find support for the hypothesis that conflicts in which PGMs depend on state funding are more likely to fizzle into low levels of activity than conflicts without such PGMs.

Our models' additional independent variables merit brief discussion. Only regime type and population have a statistically significant effect on the risk of negotiated settlements and conflict fizzling. States that score higher on the Polity scale (and are thus more democratic) are less likely to experience conflict dwindling into low activity, while states with larger populations are more likely to see conflict drop below conventional levels. We take the general lack of statistical significance in our control variables as an indication that these alternative drivers do not consistently explain variation in our dependent variables. Phrased differently, while PGMs occur in conflicts that differ across states' regime type, economic capacity, and the motivation for fighting,[28] the presence of government-funded militias appears to have an impact on conflict termination regardless of setting.

To better illustrate the effects of government-funded PGMs on conflict termination, we include cumulative incidence plots of the two main outcomes of interest. These plots compare the possibility of a given outcome for conflicts without PGMs, with self- or externally-funded PGMs, and with government-funded PGMs. For each plot, control variables are set at the median or modal value (depending on the continuous or discrete nature of the variable). It is critical to remember that such conflict outcomes are rare: the important distinction is the relative incidence given certain conflict characteristics.

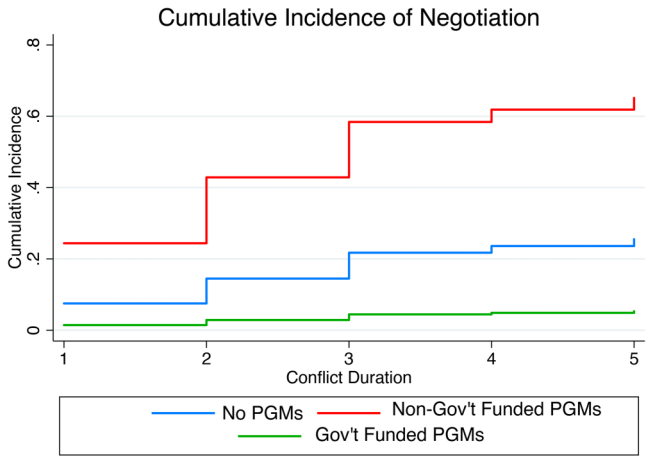

Figure 2. Cumulative incidence of negotiation.

Figure 2 reveals that while self- or externally-funded PGMs are associated with an increased hazard of conflict terminating via negotiation, government-funded militias decrease the likelihood that the conflict will end in a negotiated settlement relative to those conflicts without PGMs. Particularly for long-lasting conflicts, the presence of government-funded PGMs makes negotiated settlements about 10% less likely than in conflicts without any PGMs, and nearly 40% less likely than in conflicts where PGMs are self-supported. Per our theoretical argument, states fund PGMs to limit the power of strong rebel groups and avoid facing costly settlements at the negotiating table. As conflict continues, however, government-funded militias may actively deter the state from pursuing conflict settlements. We argue that government-funded militias uniquely inflate states' capabilities, incentivizing states to avoid the negotiating table and continue fighting in the hopes of winning rather than compromising.

Figure 3, finally, illustrates the dampening effect that pro-government militias with government funding and accountability can have on rebellion. Such militias increase the hazard that rebellions fizzle and rebel efforts fail by about 5% relative to conflicts without any PGMs and by about 10% relative to conflicts where PGMs are self-funded.[29] The substantive effects reiterate that when PGMs receive government funding, they are far more capable of suppressing rebel efforts. Paying such militias and increasing their efficacy allows states to avoid negotiating and incurring political costs while also minimizing the risks that come from allowing additional armed actors to participate in civil conflict.

Isolating the impact of government-funded PGMs. Thus far, we have assessed if conflicts with government-funded PGMs are at an increased risk of certain forms of conflict termination. The results of our analyses allow us to assert that the presence of government-funded PGMs is associated with an increased risk of conflict fizzling and a decreased risk of negotiated settlements. However, the results do not elucidate whether certain characteristics of civil wars simultaneously lead governments to fund PGMs while also influencing the manner of conflict termination. Governments' choice to financially support militias may be a symptom of existing conflict characteristics rather than a cause of conflict trajectories. Phrased differently, our analysis of the impact of government-funded militias on conflict termination may suffer from selection bias. Governments'

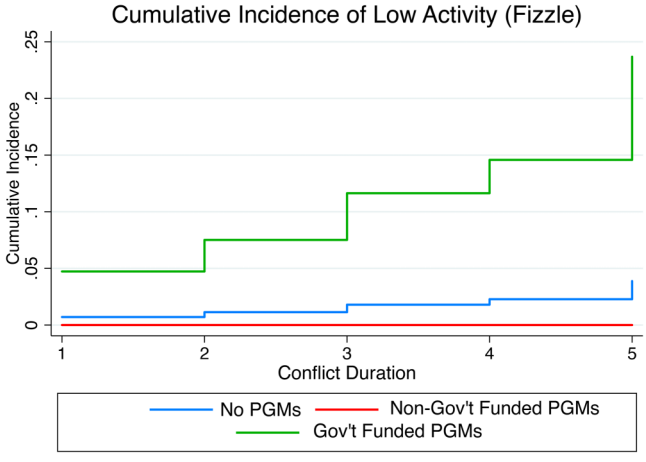

Figure 3. Cumulative incidence of low activity (fizzle).

decisions to fund militias may be based on conflict characteristics that also impact our outcome of interest, time until specific conflict outcomes.

From a research standpoint, the ideal design would isolate the impact of government-funded PGMs' participation in conflict by randomizing the application of this "treatment". Following the random assignment of government-funded PGMs, we might assert that variation in conflict duration until peace agreements or fizzling is due to changes in the treatment (government-funded PGMs) rather than other factors, as each conflict in the sample is equally likely to be treated. This random assignment is (thankfully) impossible in this type of conflict research as it is in most of the social sciences. However, we can mimic this experimental design even with observational data by employing IPTW.

Inverse Probability of Treatment Weighting is similar to propensity score matching[30] insofar as it adjusts for subjects' or observations' increased chances of receiving treatment. However, IPTW adds complexity to the propensity scores by weighting each unit by the inverse probability that they receive treatment. This weighting reduces bias in the application of treatment, allowing us to assess the impact of treatment as if it were randomly applied. IPTW then isolates the effect of the treatment from other factors that may impact both whether or not a conflict is "treated" and the manner of conflict termination, provided that the weighting equation is properly specified (Bolch et al., 2017; Wang and Aban, 2015).[31] For this study, each conflict is weighted by the inverse probability that government funding of PGMs occurs. Conflicts that are estimated to have a high probability of "treatment"—in this case, the government funding a PGM—provide less information about the isolated impact of such PGMs on conflict termination than do conflicts with a low estimated probability of treatment in which government-funded PGMs are present. In our case, the procedure downweights the former and upweights the latter, creating a "pseudo population" in which conflict characteristics that predict government funding and the "assignment" of government-funded PGMs are unrelated. We predict the probability that states will fund PGMs based on key state and conflict level variables associated with conflict onset, severity and duration in the civil war literature. The probability of treatment is estimated by:

$$p(\text{Gov Funded PGM}) = \beta_1 \text{Ln(Population)} + \beta_2 \text{Ln(GDP)} + \beta_3 \text{Polity} + \beta_4 \text{Incompatibility} + \beta_5 \text{Cold War}$$

Our empirical approach with IPTW allows us to assess the average treatment effect: the difference in the risk of a certain event at time t that we can attribute to the treatment (the existence of government-funded PGMs). We assess the impact of government-funded PGM presence at three different times to consider changes over the course of a conflict in governments' choices to fund PGMs. We estimate the average treatment effect between conflicts without government-funded PGMs (either with non-government-funded PGMs or with no PGMs) and with them at 2 years

Table 2. Risk difference between conflicts with government-funded PGMs and conflicts without government-funded PGMs.

	Risk difference (First quartile duration)	Risk difference (median duration)	Risk difference (third quartile duration)
Negotiation	−0.029	**−0.085**	**−0.104**
	(0.017)	(0.031)	(0.034)
Low activity	**0.026**	**0.062**	**0.085**
	(0.013)	(0.028)	(0.038)

Risk differences in bold are statistically significant at the $p < 0.05$ level, and standard errors are in parentheses below.

(first quantile value), at 6 years (the median value of conflict duration in our sample), and finally at 11 years (the third quantile value). The difference in the risk of conflict termination via negotiated settlement or fizzling for conflicts with government-funded PGMs vs. those without is reported in Table 2. A negative (positive) risk difference indicates that after accounting for a subset of variables that may drive selection into treatment, government-funded PGMs reduce (increase) the likelihood of conflict terminating in this manner. Risk differences in bold are statistically significant at the $p < 0.05$ level, and standard errors are in parentheses below.

The results of the IPTW approach lend additional confidence to our initial results. Government funding of PGMs reduces the risk of conflicts concluding in negotiation in comparison with conflicts without government-funded PGMs. The risk difference is significant at the $p < 0.05$ level for all but the first quantile measure, where it reaches significance at the $p < 0.1$ level. The increasing impact of government-funded PGMs over time follows the time frame of negotiated settlements in conflict more generally. Rebels, as relatively weak conflict actors, are generally unable to push for negotiated settlements early in conflicts while their strength and resolve remain unknown. However, as conflicts continue and the plausibility of ceasefires and negotiated settlements increases, states may employ PGMs to avoid this politically costly outcome. Funding PGMs reduces governments' risk of compromising with rebels.

Finally, the impact that more efficient, state-funded PGMs have on limiting high intensity conflict and pushing rebellions into low activity is consistent over the course of the conflict as government-funded PGMs increase the risk of fizzling across time. The effect is significant at conventional levels. Our IPTW findings thus lend strong support to the argument that states employ PGMs strategically to achieve specific outcomes. Government-funded PGMs are best equipped to reduce the overall severity of rebels' actions and undermine rebel strength. While this may not lead to a quick and decisive conflict resolution, it provides states with one form of favorable outcome: eventual fizzling of the rebellion without surrendering costly concessions.

Conclusion

Pro-government militias are a common feature of intrastate conflict. They are present in a variety of civil war contexts ranging from the conflict between the Sri Lankan state and the LTTE to the Colombian civil war to Nigeria's ongoing insurgency. In places like East Timor, the use and support of PGMs was a deliberate part of the Indonesian government's counterinsurgency strategy. Yet much of the literature about pro-government militias assumes that their impact on conflict processes and outcomes is uniform. With this in mind, we address a central source of PGM variation—group funding—hypothesizing that this variation influences the manner of civil wars' termination.

Previous literature explores PGMs' impact on conflict duration, finding that pro-government militia presence extends conflicts and makes them more difficult to resolve (Aliyev, 2020). We argue that even if PGMs make conflicts more intractable, governments employ PGMs to impact the manner of conflict termination and achieve conflict outcomes that are favorable to the state. When states make the strategic choice to fund PGMs, they strengthen their linkages to and control over militias and are thus better suited to harnessing the information and capacity-building benefits of such armed groups. Our theoretical framework posits that the added benefits of funding PGMs both ward off governments' need to grant concessions to opposition groups via negotiated settlements and precipitate the weakening of rebels such that they are unable to sustain ongoing conflict. If states do not anticipate being able to win the conflict outright, funding PGMs allows

them to delay or prevent less favorable outcomes while expediting and increasing the likelihood of relatively more optimal ones.

Based on our analysis of civil conflicts between the years 1981 and 2007, our findings support the claim that states fund pro-government militias to alter not only the duration of conflict but also the manner of conflict termination. Using both competing risks analyses and IPTW, we find consistent support for our theory. Government-funded PGMs enable the state to avoid the negotiation table, while self- or otherwise-funded PGMs do not fulfill this function—and can actually be expected to increase the likelihood of negotiated outcomes. Likewise, government-funded PGMs substantially increase the chances of conflicts dwindling as well-equipped PGMs chip away at rebels' capacity and resolve to wage war. States' choices to fund PGMs are probably a symptom of their inability to win and thus driven by certain characteristics of conflict. However, the introduction of government-funded PGMs has a role in simultaneously preventing unsatisfactory conflict outcomes (negotiation) while increasing the likelihood of more appealing ones (gradual fizzling of rebel efforts) even when considering how other likely drivers of governments' choices to fund PGMs may also influence the manner of termination.

Our findings are important for policymakers seeking to resolve intrastate conflict. Given the international community's focus on fostering negotiations and peacebuilding, it is crucial to know how intra-war dynamics influence the ease or difficulty of conflict resolution efforts. The findings herein reveal that conflicts in which governments have funded pro-government militias may prove particularly intractable, as these PGMs ward off or reduce incentives to achieve negotiated settlements. At the same time, such PGMs reduce but are unlikely to entirely diminish armed opposition movements. Intervening states and organizations, then, need to be cognizant of how government-funded PGMs might shift incentives and plan their peacebuilding efforts accordingly. While continued research is needed, one policy implication may be to include government-supported PGMs in negotiations and in the spoils of peace in order to ensure a successful transition away from conflict.

Although this paper advances our understanding of the conflict-level implications of PGM involvement, substantial opportunities for additional work remain. A natural extension is to consider the timing of PGM introduction, with an eye to understanding variation in the emergence of state-funded PGMs vs. independently or externally funded militias. There is also room to bridge subconflict level work about PGMs' tactics and patterns of victimization with our conflict-level findings about the manner of conflict termination. While we suggest that PGMs fulfill both information-gathering and capacity-building roles that states desire to maximize, variation in the manner in which they fulfill these functions may drive important changes in conflict-level outcomes. Finally, a better understanding of the spatial and temporal distribution of multiple PGMs in conflict, regardless of funding status, is needed. We have demonstrated that there are important differences in the conclusion of conflicts in which states have chosen to fund PGMs as opposed to those conflicts in which they have not. Given the reality of PGMs' frequent presence in civil war, learning more about their influence is a worthy, if not vital, endeavor.

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Supplemental Material

Supplemental material for this article is available online.

Notes

1. Carey, Mitchell and Lowe (2012) state that PGMs are present in 81% of civil wars.
2. Aliyev (2016) similarly recognizes that governments intentionally keep state-supported militias under their control, whereas militias who are independent of the state—including those who are independent vis-à-vis funding—act as stakeholders who may develop their own aims.
3. Fortna argues that settlements "represent at least partial political victory for the rebels" and "require the government to accept rebels as legitimate negotiating partners, itself a significant concession. Indeed, many civil wars coded as ending in an agreement could easily be considered rebel victories in political if not military terms" (Fortna, 2015: 23).
4. Another noteworthy strand of research unpacks the unitary actor assumption by looking at the role of fragmentation and infighting in civil wars (Bakke, Cunningham and Seymour, 2012).
5. While a group must be armed to qualify as a PGM, the group need not commit violence in order to enter into this category.
6. PGMs operate within and outside of the context of civil wars. Given our primary research question, we focus our discussion on the ways in which PGMs shape civil war dynamics.
7. See also Stanton (2015) and Cohen and Nordås (2015)
8. For a more detailed discussion of veto players, see Cunningham (2006).
9. Peic (2014).
10. See, e.g. Kammen (2001) and Robinson (2001).
11. It is also possible for groups to receive support from multiple sources.
12. Government incentives are empirically elusive. However, our theory and empirical analyses speak to these incentives by examining a key function of militias: their ability to offset the costs of conflict. We theoretically and empirically address the effects of PGMs on conflict dynamics and outcomes. By extension, we deduce how the support of PGMs might be an appealing wartime strategy for governments.
13. McGregor (2012)
14. According to Segal (1988: 955), the Popular Army transformed "into a highly effective local area defense force, organized into regional commands. Since its primary mission is local area defense, its troops lack the firepower, heavy equipment and mobility of the Iraqi regulars. Even so, they are better armed and more mobile than most of the Iranians they encounter".
15. In our theory and analyses, we focus on two specific conflict outcomes: fizzling/inactivity and negotiated settlements. We examine the trade-offs that governments make in efforts to achieve outcomes short of victory, given that outright victory is rare in civil conflicts. Given the rarity of these outcomes, we also lack sufficient cases in our sample to estimate our models for the outcomes state or rebel victory.
16. For work on mutually hurting stalemates, see Zartman (1989, 2001).
17. The PGMD codes militia-level information for some PGMs prior to 1981. We also run our analyses on the full period 1946–2007 as a robustness check in our Online Appendix.
18. This is in keeping with literature defining civil wars as a conflict between a state and a rebel group within the territory of the sovereign state.
19. Building a data frame to merge the UCDP termination data and the PGM data required several steps to address two primary data challenges. First, the observational units for the UCDP and PGM datasets differ. The UCDP data is recorded at the conflict episode level and the PGM data at the group level. Based upon the start and end years for each conflict episode, we were able to create a conflict/year

structure; we repeated this procedure for the PGM data as well. With both datasets in the conflict-year format, we used common location codes and years in the two datasets to merge information on pro-government militia presence within each conflict with measures of conflict duration and termination type. Second, the competing risks analysis requires a specific structure for the final data frame. We tally all conflict/years to create a duration variable and pair this with an outcome variable that records the manner of conflict termination. The final dataset allows us to assess differences in conflict termination between conflicts in which government-funded PGMs are present vs. those in which they are not.

20. We follow UCDP's coding of conflict episodes in which an episode is defined as "a continuous period of active conflict years". However, we include dependency between any recurring conflict episodes by clustering standard errors at the overall conflict level.
21. We follow UCDP's distinction in coding these outcomes. Our negotiation outcome includes peace agreements and ceasefires, as governments may face political consequences for agreeing to halt military action against rebels in either case; isolating the peace agreement outcome does not change our results, as seen in the Online Appendix. Government or rebel victories entail decisive defeat of the competing actor. Low activity or fizzling indicates that the conflict fails to reach conventional levels of violence (25 battle deaths) in the final year.
22. About 20% of observations in the PGMD data do not have any funding information or information is unclear. We code these as militias without government funding, as there is no straightforward indication of state support. However, in our Online Appendix, we remove observations for which we have no information and the results remain the same. In contrast, 42% of militias present in conflicts in our data are coded as solely government funded.
23. While each of these categorical indicators are numerically coded for ease, we do not consider the categories ordinally in our analyses.
24. We do not have temporally variant information about when funding begins or when PGMs' funding status changes. As such, we code the same value over the course of the conflict.
25. There is very little, if any, change in these variables over the period of conflict.
26. No conflicts in our sample are coded as being fought over both territory and regime change.
27. It should be noted that all forms of conflict termination can be considered a rare event, and that negotiated settlements are no exception. The chance of conflicts ending in peace agreements or ceasefires—regardless of conflict characteristics—is low. In the conflict-level UCDP data (Kreutz, 2010) peace agreements and ceasefires constitute roughly 21% of all outcomes for the years 1981–2007. In our data, peace agreements similarly occur in about 21% of cases.
28. See our Online Appendix for descriptive statistics about the distribution of these dependent variables in our sample.
29. The subhazard ratio of non-funded PGM conflicts fizzling out is very low, but higher than 0, as suggested in Figure 2.
30. See, for example, Steinert et al. (2018), in which the authors use propensity score matching to address concerns about endogeneity between PGM presence and civil war recurrence.
31. The accuracy of average treatment effects obtained via IPTW is dependent on proper specification of the treatment equation. An ideal specification would include all possible drivers of governments' choices to fund PGMs. While this is not possible, we take the most conservative approach by including all predictors of the competing risks analysis as predictors for treatment.

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