PRIVATE MILITARY COMPANIES IN AFRICA:

A STUDY ON THE EFFECTS OF CONFLICT

DURATION

By

DALTON SHANE WOODRING

Bachelor of Arts in Political Science

Oklahoma State University

Stillwater, Oklahoma

2018

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF ARTS
May, 2020

PRIVATE MILITARY COMPANIES IN AFRICA:

A STUDY ON THE EFFECTS OF CONFLICT

DURATION

Thesis Approved:

Stephen Nemeth

Thesis Adviser

Brooke Coe

Peter Rudloff

ACKNOWLEDGEMENTS

I would like to thank and express my gratitude towards all of my committee members. The expertise of these members had a tremendous impact in the completion of this thesis. Of these members, I would like to give special recognition to Dr. Stephen Nemeth, who provided the motivation and mentorship necessary to face the challenges associated with this degree requirement.

In addition, I would like to thank my grandmother and life-long teacher, Shirley Zeiler. I cannot thank you enough for the amount of guidance and input you have provided throughout this thesis. You have truly had a significant impact on my life and academic career.

Last, I would like to thank my family and friends for their unwavering support throughout this degree program. Mom and Dad, thank you for stressing the importance of dedication to work and pushing me to constantly achieve higher standards. Jacob and Rachael, thank you for providing me with the occasional time off to laugh and enjoy life.

Without all of you, none of this would have been possible.

Name: DALTON SHANE WOODRING

Date of Degree: MAY, 2020

Title of Study: PRIVATE MILITARY COMPANIES IN AFRICA: A STUDY ON THE
EFFECTS OF CONFLICT DURATION

Major Field: POLITICAL SCIENCE

Abstract: Since the 1990s, the use of private military companies (PMCs) has increased in both interstate and intrastate conflict. Despite this, relatively little research describes the relationship between PMCs and the duration of conflict. Building upon previous theoretical arguments, I propose that PMCs influence the duration of civil conflict through both power aggregation and information asymmetries. However, this effect varies depending on whether the client is a government or a rebel group. I find, contrary to previous research, that there is no relationship between the presence of a PMC within a civil conflict and its duration. This finding points to a need for increased research within this topic and the creation of comprehensive data on PMCs.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

In 2003, Blackwater, a private military company (PMC)[1], won a securities contract

from the United States government for $21 million to protect members of the Coalition

Provisional Authority (CPA) following the invasion of Iraq (Gillan 2009). Since that

time, in its various contracts with the U.S. State Department, Blackwater would earn

more than $1 billion for its security services (Gillan 2009). However, the PMC would

also become entangled in controversy through its involvement in nearly 200 shootings

from 2005 to 2009 (Gillan 2009). One example which occurred in 2007, involved the

killing of 17 civilians in Baghdad's Nisour Square (Gillan 2009). This resulted in a

Congressional investigation and has led many to question the effectiveness and

appropriateness of utilizing PMCs in overseas military operations (Broder and Knowlton

2007; Gillan 2009).

Since the 1990s, PMCs and their use by states has increased (Singer 2003;

Akcinaroglu and Radziszewski 2012). For example, evident in U.S. operations in Afghanistan,

the United States has been heavily reliant on the use of PMCs during the Global War on Terror.

---

[1] Additionally, PMCs are often referred to as "firms," "companies," and "corporations," throughout the
literature.

In 2012, the number of private contractors stationed in Afghanistan reached an all-time high of approximately 117,000 (Peters and Plagakis 2019). At the same time, roughly 88,000 U.S. soldiers were deployed in the state (Peters and Plagakis 2019). Between the 2008 and 2017 fiscal years, the level of U.S. troops rarely exceeded those of private contractors (Peters and Plagakis 2019). In 2017, it was estimated that there were more than double the number of private contractors in Afghanistan than there were U.S. forces (Peters and Plagakis 2019).

Previous literature has largely focused on the status of PMCs under international humanitarian law and the need for regulation within the industry (Cameron 2006; Carney 2006; Doswald-Beck 2007). The relatively-undefined and nonspecific status of PMCs under a multitude of U.N. articles and conventions has led to an abundance of scholarly debate regarding the legal definition of these actors (Millard 2003; Cameron 2006; Doswald-Beck 2007). In turn, this has led to discussion regarding the domestic and international regulation of PMCs through contractual obligation and the use of oversight by third-party actors (Carney 2006).

Additionally, the literature discusses the ability of PMCs to increase conflict severity, within states experiencing civil conflict, by increasing the military effectiveness of the client (Petersohn 2017). However, there is a dearth of literature on the specific relationships between PMCs and the duration of conflict. In one of the only articles on the subject, Akcinaroglu and Radziszewski (2012) argue that competition between PMCs during civil conflict is important because, without it, these actors may exploit the limited monitoring capabilities of clients. When hired by the governments experiencing civil

2

conflict, competition among PMCs is found to decrease conflict duration (Akcinaroglu and Radziszewski 2012).

Despite this, it is still unknown if the mere presence of PMCs within civil conflict, whether hired by government or rebels, contribute to conflict duration – as no known literature examines this effect. To resolve this gap in the literature, I focus on PMCs in Africa and analyze the relationship between conflict duration and the contracting of security services by governments and rebel groups. Because of the increased use of PMCs in intrastate and international conflicts (Singer 2003; Akcinaroglu and Radziszewski 2012; Petersohn 2017), this study will contribute to existing literature by further exploring the effect of PMCs on conflict duration.

In this thesis, I review the literature pertaining to third-party interventions within civil conflict (Balch-Lindsay and Enterline 2000; Regan 2002a; 2002b; Balch-Lindsay et al. 2008) and the domestic conditions influencing conflict duration (Fearon 2004; Collier and Hoeffler 2004; Collier et al. 2004). In addition, I examine the current literature describing the effects of PMCs on conflict duration (Akcinaroglu and Radziszewski 2012; Petersohn 2017; Faulkner 2017). I then test this relationship by conducting a multivariate analysis using a Cox proportional hazards model. I find that PMCs, when contracted by either government or rebel forces, have no effect on the duration of civil conflict. Despite these findings, this study is of importance as it finds that the effects of PMCs on conflict duration may not be as pronounced as the literature assumes. However, because the use of PMCs in weak or failed states could lead to these actors becoming the most able and lethal military force within a region (Singer 2003), this topic may soon become more relevant.

CHAPTER II

LITERATURE REVIEW

Until recently, the impacts of PMCs on civil conflict duration appear not to have been assessed quantitatively. Instead, much of the relevant literature has studied the role of third-party intervention – meaning the effect of external actors in civil conflict - and its effects on the duration of civil conflict (Balch-Lindsay and Enterline 2000; Regan 2002a; 2002b; Balch-Lindsay et al. 2008). This literature provides a range of empirical findings giving credence to the circumstances third-party interventions are effective in reducing conflict duration. Because the definition of third-party interveners is not strictly defined, the findings of this literature can be useful in studying the intervening effects of PMCs on the duration of conflict. Included within the civil war literature, scholars also discuss and provide evidence for a variety of domestic factors affecting the duration of civil conflict. Because the focus of this thesis is of civil conflict, this literature will aid in determining both the factors and conditions associated with conflict duration.

INTERVENERS IN CIVIL CONFLICT

Third-party interventions in intrastate conflicts are a heavily-studied section of the civil war literature (Balch-Lindsay and Enterline 2000; Regan 2002a; 2002b; Balch-Lindsay et al. 2008). Often described as economic or military involvement by an outside actor (Regan 2002b), these interventions are described as ineffective in their ability to decrease conflict duration. In fact, both economic and military intervention are associated with increased conflict duration – especially when either type of intervention alone is relied upon for conflict cessation (Balch-Lindsay and Enterline 2000; Regan 2002b). Reliance on only economic intervention often fails to change the "cost-benefit calculations of the antagonists" due to the costs incurred throughout the conflict (Regan 1996, 347). The sole use of military intervention by third parties is ineffective because "the role of affective motivations will take on a higher salience to the combatants, making outside participants either largely irrelevant or a target and a cause to continue the struggle" (Regan 1996, 347). However, by utilizing a mixed strategy – meaning the use of both military and economic intervention – third-party interveners are able to simultaneously affect both the costs of continued fighting and the anticipated benefits of conflict cessation (Regan 1996). In turn, this strategy is associated with a decrease in conflict duration (Regan 1996).

In addition, the literature discusses the effects of biased interventions – third-party intervention in support of either the government or rebel group; and neutral interventions – third-party intervention without declared support to any one party (Regan 2002b). Collier et al. (2004) find biased third-party interventions on behalf of rebel groups to result in a decrease in conflict duration. The authors suggest that with sufficient military

support, government forces can be defeated because rebel groups are able to conceal themselves. Regan (2002b) finds that biased third-party interventions are associated with shorter conflict duration. This may occur because third-parties may only intervene in cases where they believe intervention will end the conflict in their favor (Regan 2002b). Furthermore, Regan (2002b) finds that neutral third-party interventions, when compared to biased interventions, dramatically increase time until conflict cessation. In explaining this finding, Regan (2002b) provides two arguments: (1) third-parties are not always impartial mediators and (2) remaining impartial may not be sufficient in convincing warring actors to forgo hostilities.

Unlike Collier et al. (2004) and Regan (2002b), Balch-Lindsay and Enterline (2008) and Balch-Lindsay et al. (2008) find that biased military interventions increase conflict duration. In explaining this discrepancy, Balch-Lindsay and Enterline (2008) argue that when a third-party intervener commits resources to one party within a conflict, other third-parties are encouraged "to counterbalance these contributions by committing resources to the opposite side in the conflict" (Findley and Teo 2006; Balch-Lindsay and Enterline 2008, 632). The explanation of Balch-Lindsay and Enterline (2008) is similar to the findings on simultaneous third-party interventions – described as countervailing intervention on behalf of both parties engaged in conflict. Simultaneous third-party interventions are reported to increase conflict duration by providing continued motivation for warring parties to continue hostilities and increase time until negotiated settlement (Regan 2002b; Balch-Lindsay et al. 2008).

The timing of third-party intervention within intrastate conflict is of equal importance to the type and form of intervention and can significantly aid in conflict

termination (Regan and Aydin 2006). Regan and Aydin (2006) find that diplomatic interventions during the "middle stages of conflict" are effective in resolving intrastate conflict (749). This occurs because third-party interveners, at a certain point in the conflict, are able to "more effectively communicate information about the utility of continued fighting and the terms of potential settlements to warring parties" (Regan and Aydin 2006, 742). These findings are contrary to the results of Regan and Stam (2000), who conclude intervention in intrastate disputes is most effective during early and later stages. Furthermore, third-party interventions supporting government opposition during the early onset of conflict are found to increase duration by shifting "the balance of capabilities towards parity" (Regan 2002, 61).

DOMESTIC FACTORS IN CIVIL CONFLICT

Although third-party interventions are found to influence the outcomes of civil conflict, the literature also examines the effects of certain domestic factors on conflict duration (Fearon 2004; Collier and Hoeffler 2004; Collier et al. 2004). Ethnic fractionalization, described as the probability that two randomly-selected individuals are from different ethnolinguistic and religious groups (Fearon and Laitin 2003), is an important factor described within the civil war literature. Fearon (2004) finds ethnic fractionalization to increase civil war duration (287). Collier et al. (2004) find the effects of ethnic fractionalization on conflict duration most significant when approximately "two or three large ethnic groups" are present within the society, and the level of ethnic fractionalization is approximately equal (263). Elbadawi and Sambanis (2000) and Collier and Hoeffler (2004) find similar results with intermediate levels of ethnic

fractionalization attributing to an increase in conflict duration. Furthermore, Collier et al. (2004) determine that higher levels of national diversity reduce social cohesion among rebel groups – causing a decrease in conflict duration. Lower levels of ethnic diversity are associated with an increase in social cohesion among rebel groups through the creation of ethnic group affiliations – causing an increase in conflict duration (Collier et al. 2004).

Mentioned within the civil war literature, the geographical terrain of a state is often found as having an impact on conflict duration (Collier and Hoeffler 1999; Collier et al. 2004). Mountainous and forested regions are described as offering rebel groups "safe haven" and opportunity to reorganize and rearm before reengaging government forces (Collier et al. 2004). Although emphasizing the importance of geographical terrain, Collier and Hoeffler (1999) and Collier et al. (2004) find no support for the relationship between mountainous or forested terrain and conflict duration. In addressing this finding, the authors suggest that when conflicts are escalated to a "substantial scale," the conflict can be sustained regardless of geography (Collier et al. 2004, 266). However, Lujala (2010) finds that mountainous terrain and rainy seasons decrease the duration of conflict. This occurs because mountains provide locations to conceal forces, and rainy seasons may damage roads and isolate the warring parties.

The literature identifies a relationship between the ability of rebel groups to access natural resources and conflict duration (Collier 1999; Collier et al. 2004; Fearon 2004; Lujala 2010). Fearon (2004) and Collier et al. (2004) find that natural resources controlled by rebel movements allow for a source of revenue to finance rebellion – thus increasing the duration of conflict. Furthermore, conflict duration may be influenced by

rebel group investment in the illicit sale of natural resources leading to the acquisition of the weapons and materials required to gain a competitive edge on government forces (Fearon 2004; Collier et al. 2004). However, the geographic location of these natural resources is important in determining their impact on conflict duration (Lujala 2010).

Heavily noted within the literature, certain economic factors are shown to significantly contribute to an increase in conflict duration (Collier 1999; Collier et al. 2004; Collier and Hoeffler 2004; Fearon 2004). Collier and Hoeffler (2004) and Collier et al. (2004) cite low per capita income as contributing to increased conflict duration by decreasing the opportunity costs of conflict. Fearon (2004) suggests low per capita income increases civil war duration by supporting ethnic conflict and the financing of contraband. Collier et al. (2004), further discussing the effects of domestic economic conditions on conflict duration, find high income inequality to increase conflict duration by proxy of "the difference between the victory and defeat payoffs" and lowering the cost of recruitment for rebel groups (262).

THE FIRM IN CIVIL CONFLICT

Due to the involvement of PMCs in civil conflict, literature pertaining to third-party interventions and the domestic factors influencing conflict duration are of importance to the study of PMCs. However, the effects of PMCs on the duration of civil conflict is a widely under-documented area of the literature (Akcinaroglu and Radziszewski 2012). In addressing this oversight, Akcinaroglu and Radziszewski (2012) study the effects of competition between PMCs on the duration of civil conflict in African. In their research, the authors seek to determine "when these companies can be

agents of insecurity and when their presence can generate positive dividends for peace"

(815). Akcinaroglu and Radziszewski (2012) find that when PMCs are hired by the

government, competition between firms is associated with a decrease in conflict duration.

This occurs because governments in the post-Cold War era often hire multiple PMCs,

thus creating competition in delivery of the services requested by the client (Akcinaroglu

and Radziszewski 2012). This produces desirable results on behalf of the client and aids

in the efficient delivery of firm services, as anything less could hamper the firm's ability

to acquire future contracts with the government (Akcinaroglu and Radziszewski 2012).

Furthermore, Akcinaroglu and Radziszewski (2012) find that when hired by a rebel

group, competition between PMCs is not enough to guarantee rebel victory and decrease

conflict duration.

Competition is not the only factor influencing the behavior of PMCs in favor of

conflict termination. Strategic privatization is the selling of natural resources by the

government to the PMC as payment for security services (Singer 2003). Akcinaroglu and

Radziszewski (2012) find that when receiving payment for services through concessions

to extract natural resources, PMCs are driven to deliver decisive victory for the

government. Because microeconomic theory holds all firms seek to maximize profits, a

peaceful environment allows the PMC to achieve this goal (Akcinaroglu and

Radziszewski 2012). If the resource being sold is under rebel control, the PMC must

attack the government's opposition to receive payment (Singer 2003). Upon success of

the PMC in gaining control of the natural resource, the rebel group is then deprived of a

source of revenue to finance rebellion – further ensuring government victory (Singer

2003).

Because PMCs have increasingly become more involved in conflict for the past two decades, a common view is that these actors routinely increase the severity of armed conflict (Petersohn 2017). By establishing a relationship between military effectiveness and conflict severity, Petersohn (2017) finds that PMCs increase conflict severity within failed or weakened states. PMCs are recruited to increase the military effectiveness of the client by contributing to the fighting capability of standing forces and improving military responsiveness to combat operations – thus contributing to an increase in conflict severity (Petersohn 2017). However, the increase in conflict severity is not due to the PMCs "particular bloodlust" for conflict, but instead the firm fulfilling the negotiated contractual obligations and increasing the client's ability to neutralize opposition forces (Petersohn 2017, 1066).

By noting the differential effects of PMC security services, Petersohn (2017) finds that not all services offered by PMCs are equally effective in increasing the military capabilities and responsiveness of the government's standing forces. Offering the greatest increase in military capability and responsive, PMCs specializing in armed services can directly contribute to the client's forces by introducing additional soldiers and advanced battlefield tactics, conducting air-to-ground strikes, and establishing command-and-control systems (Petersohn 2017). These security services further enable the client's standing forces to launch offensive operations by supporting the availability of resources – resulting in an increase in conflict severity (Petersohn 2017).

Commonly provided to foreign forces, PMCs which specialize in providing consultancy and training serve to improve both the military capability and responsiveness of the client (Petersohn 2017). Unlike PMCs specializing in armed combat, firms

dedicated to providing consultancy and training services do not directly contribute to the client's military capabilities (Petersohn 2017). Instead, by providing a focus on improving the current state of the client's standing forces, these PMCs enable current forces to conduct "elaborate battlefield maneuvers and better adjust to opponent tactics" (Petersohn 2017, 1050). By improving the client's ability to eliminate the opposition and broaden combat operations, the services of consultancy and training contribute to an increase in conflict severity – although to a lesser extent (Petersohn 2017, 1050)

Improving only the responsiveness of the client's military forces, PMCs specializing in intelligence gathering are contracted to provide "commanders with a clearer picture of the enemy's positions and intentions" (Petersohn 2017, 1050). By allowing the client's standing forces to adjust offensive or defensive operations, soldiers are better able to counter the opposition (Petersohn 2017). Due to an increase in military effectiveness, the intelligence gathering services offered by PMCs are found to increase the severity of conflict. However, because these security services only address the responsiveness of the client's forces, conflict severity will increase less than both armed security and consultancy and training services (Petersohn 2017).

Having no effect on either the military capability or responsiveness of the client, PMCs providing logistics and support services "improve the availability and quality of weapon systems and the logistics chain" (Petersohn 2017, 1050). By providing efficiency, PMCs engaging in logistics and support services allow the client's military to properly maintain weaponry and bolster "weapons-ready ratios" by reducing maintenance cycles (Petersohn 2017, 1050). By managing support functions, PMCs are able to reduce the number of client forces dedicated to logistics and support tasks (Petersohn 2017). In

turn, this increases the number of client forces available for assignment to combat duties

(Petersohn 2017). Despite this, Petersohn (2017) finds PMCs specializing in logistics and

support services have no effect on conflict severity. This is because logistics and support

services "do not directly translate to improved war-fighting skills," but instead contribute

to resource expansion and availability (Petersohn 2017, 1050). The decrease in military

effectiveness of PMCs providing logistics and support services may be attributable to the

preoccupation of client forces with unrelated war-fighting tasks and the inability of the

client to effectively utilize enhanced weapon systems (Petersohn 2017).

The civil war literature describes the impacts of third parties on the survivability of peace

post-conflict (Lo et al. 2008). While not directly related to the subject of this thesis,

PMCs do have an effect on post-conflict peace duration (Faulkner 2017). Faulkner (2017)

suggests firm variation in security services can alter rebel group perceptions regarding the

relative capabilities of the government – thus influencing the probability civil conflict

will reemerge. In particular, Faulkner (2017) finds that PMC security services involving

the use of armed combat increase the likelihood of commitment problems among rebel

groups in the post-conflict environment. This occurs because, in an already delicate

peace-agreement process, rebel groups may attribute defeat to the PMCs involvement

within the conflict – thus making the post-conflict environment even more unsteady

(Faulkner 2017). PMCs engaging in the use of consultancy and training security services,

by forgoing direct engagement with the rebel group, improve the duration of peace post-

conflict through a credibly-viewed shift in relative military capabilities (Faulkner 2017).

CHAPTER III

THEORY AND HYPOTHESES

Unfortunately, previous literature studying the relationship between PMCs and civil conflict is largely incomplete. Petersohn (2017) concludes PMCs contribute to an increase in conflict severity by increasing the military effectiveness of the government. However, the author offers no evidence to determine if the increase in conflict severity affects conflict duration – as this falls outside the scope of the intended research. In addition, although finding PMCs increase the military effectiveness of government clients, Petersohn (2017) overlooks whether PMCs can increase the military effectiveness of rebel groups. In turn, this further contributes to the gap in literature regarding the relationship between PMCs and rebel groups.

In one of the only pieces of literature connecting PMCs to conflict duration, Akcinaroglu and Radziszewski (2012) rely upon competition between firms as the independent variable responsible for conflict duration. Although the findings presented by the authors contribute to the existing literature, the analysis of how firm competition affects conflict duration introduces further gaps within the literature. By ignoring variation among the services provided by PMCs, Akcinaroglu and Radziszewski (2012) inadvertently overstate the effects of competition on conflict duration. Rather, because

Petersohn (2017) finds that certain security services increase military effectiveness, competition is likely only between PMCs providing similar security services (Lowery and Gray 1995; Nemeth 2014).

While it is important to understand how competition among PMCs may influence conflict duration, the literature first must explain how the simple presence of PMCs impacts the duration of conflict. By removing Akcinaroglu and Radziszewski's (2012) variable for competition and replacing it with presence, I argue that PMCs have an effect on the duration of civil conflict and that these effects will differ depending on whether the client is a government or a rebel group. In doing so, I propose two mechanisms by which this occurs. First, through power aggregation, PMCs impact the duration of conflict by supplementing the standing forces of the government or the rebel group. Second, the informational asymmetry between the PMC and the client, whether it is a government or a rebel group, also affects conflict duration. By utilizing these two mechanisms, I expect PMCs to decrease conflict duration when contracted by a government and increase conflict duration when contracted by a rebel group.

ASSUMPTIONS OF PMCs

Before exploring the effects of PMC presence on conflict duration, I establish a set of assumptions regarding the behavior of these firms. I will use these assumptions to define the relationship between PMCs and conflict duration. In addition, these assumptions will serve to address the theorized effects of PMCs on both government actors and rebel groups.

First, I assume PMCs, as with all organizations, are rational actors seeking to further their own self-interests (Wilson 1995; Singer 2002; 2003; Akcinaroglu and Radziszewski 2012). As with all firms in the study of microeconomics, PMCs are market-driven businesses subject to the goal of any firm: the maximization of profits (Koplin 1963; Singer 2002; 2003; Akcinaroglu and Radziszewski 2012). In pursuing this goal, PMCs may be tempted to reduce costs by delivering inadequate services to the client (Singer 2002). Brown and Root, a PMC contracted by the United States military during the Balkans conflict, both failed to deliver and overcharged for services on several contracts through the desire to reduce costs and increase profit margins (Singer 2002).

Second, the propensity to secure long-term profits can be offset by the firm's desire to maintain a reputable image (Singer 2002; 2003; Akcinaroglu and Radziszewski 2012). PMCs are incentivized to uphold their contracts and complete them in a timely manner (Singer 2003). This argument is grounded in the assumption that the reputation of the firm is a factor in the likelihood of attracting and maintaining future business. Any harm to the PMC's reputation may lead to the firm's being unable to compete in a growing market for security services and to maintain profitability (Singer 2002; 2003). PMCs can gain an undesirable reputation through a variety of methods. This can include shirking, the inability to complete a contract or abandoning it altogether, and the purposeful extending the length of the conflict to engage in profit maximization (Singer 2003; Akcinaroglu and Radziszewski 2012). In addition, PMCs may refuse to provide services altogether and enter into noncompliance of the contractual terms. (Singer 2003).

Third, if faced with no reputational costs, I assume PMCs will prolong the duration of conflict in the pursuit of maximizing profits (Singer 2003; Akcinaroglu and

Radziszewski 2012). Previous literature has indicated that PMCs can heighten or prolong conflict within the host state by contracting with the client's opposition and maintaining the future extraction rights of a natural resource used as payment (Francis 1999; Sherman 2000; Berman and Florquin 2005). Because PMCs operate in the security services market, these firms depend on the existence of security threats, and the creation of new ones, to maintain profitability (Singer 2003; Akcinaroglu and Radziszewski 2012). This encourages the PMC to pursue its own self-interest instead of addressing the security interests of the client (Singer 2003; Akcinaroglu and Radziszewski 2012). During the 1997-1999 conflict with the Eritreans, the government of Ethiopia contracted the services of a Russian PMC in providing an air force (Singer 2002; Akcinaroglu and Radziszewski 2012). Unknown to Ethiopia, because employees of the Russian PMC were also contracted by the Eritreans, the firm refused to fully engage the opposition (Singer 2002). As a result, by withholding information from the Ethiopian government, the PMC may have extended the length of this conflict.

Furthermore, it is important to note that not all security services offered by PMCs are as equally effective in increasing the military capabilities and responsiveness of the government's standing forces (Petersohn 2017). However, my theoretical mechanisms do not distinguish between the security services contracted by the client. Because contracts between PMCs and the client are difficult to obtain and can include covert operations, it is often difficult to identify the specific service or contractual terms negotiated between the two parties (Akcinaroglu and Radziszewski 2012). Instead, I examine the general presence of PMCs on conflict duration, regardless of the type of services provided.

Because I measure the presence of PMCs within the conflict, this effect should not be overstated.

GOVERNMENT CLIENTS

Previous literature (Akcinaroglu and Radziszewski 2012) finds that competition among PMCs, when hired by governments, decreases the duration of conflict. However, the authors' explanation does not account for the effects of power aggregation and informational asymmetry. In turn, I explore the effect of PMCs on conflict duration when hired by governments. I propose that these actors decrease the duration of conflict by increasing the military strength of the government. In addition, I argue that conflict duration may also be affected by informational asymmetry, although this effect may be heavily moderated by governments.

During March 1993, UNITA (National Union for the Total Independence of Angola) forces captured oil facilities within the Angolan coastal town of Soyo (Singer 2003). The rebel forces, unwilling to relinquish the drilling equipment to the state, soon became the target of Executive Outcomes – a PMC hired by the Angolan government to recapture the town and reclaim the leased drilling assets on behalf of the respective banking institutions (Singer 2003). Executive Outcomes, with only 80 commandos, launched an assault on the occupied oil facilities and successfully forced the retreat of the UNITA forces (Singer 2003). The competence and efficiency of Executive Outcomes, during their initial involvement with the Angolan government, eventually paved the way for further opportunities in the Angolan government's fight against the UNITA rebels. (Singer 2003).

First, as with the case of Executive Outcomes within Angola, PMCs can increase the military effectiveness of government forces and aid in the fight against rebel groups, thereby reducing the duration of conflict (Millett et al. 1986; Petersohn 2017). This occurs because the capabilities of the PMC increase government superiority over the rebel group, as illustrated in Figure 1. In turn, this further increases the balance-of-power ratio between the government and the rebel group, a key determinant in the duration of conflict, more in favor of the government (Bennett and Stam 1996). With greater forces at their disposal, the government can quickly and effectively contain and eliminate rebel opposition. Because of this, I assume governments are always more capable than their rebel group opponents, and that PMCs add to this capability (Gent 2011).

FIGURE 1: GOVERNMENT HIRING OF PMC
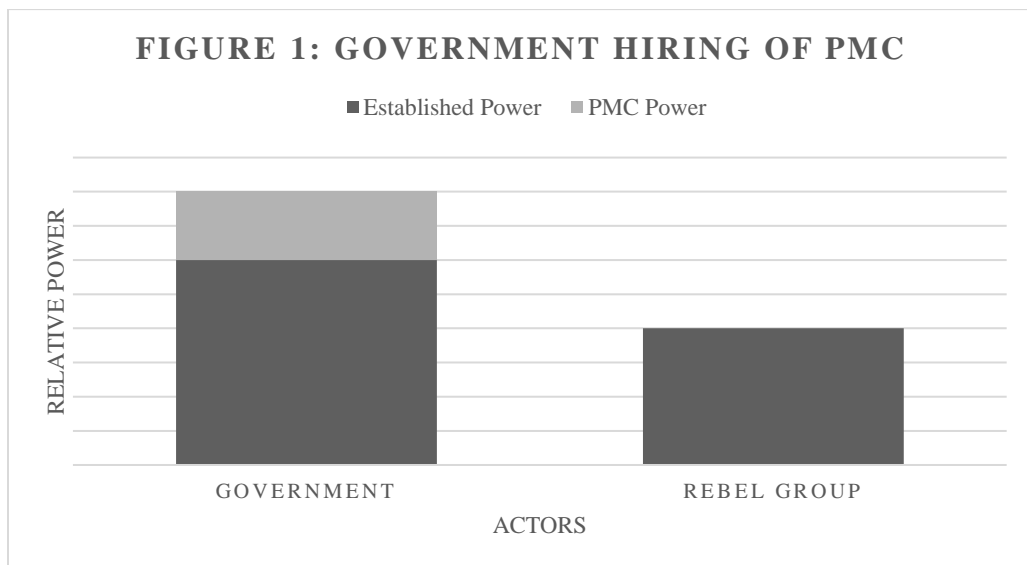
The greatest effects on conflict duration should occur when the "force ratio" is immediately outside of parity (Bennett and Stam 1996, 251). However, as the force ratio moves away from parity, there are suggested diminishing marginal returns on the reduction of conflict duration resulting from further increases in military power (Organski and Kugler 1980; Bennett and Stam 1996). This is not to be interpreted as extending the duration of conflict evenly for each additional increase in the ratio, but that additional increments in military power result in less of an effect on decreasing conflict duration (Bennett and Stam 1996). Although the above argument is traditionally applied to interstate conflict, the same effect is suggested to occur within intrastate conflicts (Cunningham and Lemke 2013).

Second, informational asymmetries between the PMC and government may influence conflict duration; however, I expect this to have a minimal effect on states. This occurs because states have structural characteristics and practices, unlike rebel groups, who can allow for the mitigation of informational asymmetry (Zartman 1996; Gent 2011). Governments accomplish this by (1) utilizing strategic privatization to force the PMC in eliminating government opposition and receive payment and (2) investing in greater levels of monitoring to ensure contract completion. Additionally, because states are sovereign entities, governments can enter enforceable contracts with PMCs (Dickinson 2003). Nondeliverance of the contractual terms, or shirking, can be met with legal repercussions (Dickinson 2003). Being mindful of reputation, PMCs will then quickly and efficiently execute the terms of the contract.

State governments, in incentivizing PMCs to fulfill the terms of their contract, have the ability to use market-based incentives to ensure a satisfactory level of

completion (Singer 2003; Akcinaroglu and Radziszewski 2012; Kramer 2017). One incentive measure is strategic privatization: when a government trades, as payment, a natural resource located within enemy territory (Singer 2002; 2003; Akcinaroglu and Radziszewski 2012; Kramer 2017). In order to receive payment, the private military firm must locate and eliminate the government's opposition (Singer 2002; 2003). Entering into such an agreement, let alone allocating resources towards its completion, could be interpreted as a form of formal commitment to the completion of the contract's negotiated terms due to the potential losses the firm may incur if it were to fail or void the terms of the contract. Because firms seek to maximize profits, they are inclined to effectively deliver upon the terms of the contract.

Strategic privatization seems to be limited in its use to state governments (Singer 2003). This could be for a variety of reasons, but the most notable involves the legal ownership of the natural resource (Singer 2003). For example, in order to protect reputation and profits, the PMC may only work with the legally and internationally recognized government of a state. Because only governments have legal ownership of the natural resources within state borders (Singer 2003), this can be used as leverage in controlling the propensity for PMCs to shirk or maximize profits with disregard for the client's security interests.

The Wagner Group, a Russian PMC fighting in the Syrian Civil War, is noted as having been incentivized through the Syrian government's use of strategic privatization to capture territory controlled by the Islamic State (Kramer 2017). In particular, the Wagner Group's contract with the Syrian government stipulated that this corporation was to be awarded a share of the oil and mining rights seized from the Islamic State as

payment for successful completion of the contract and its negotiated terms (Kramer 2017).

Due to the government's unique relationship with territory, the issue of informational asymmetry may be further lessened. Territory controlled by the state holds significant importance to the government, for both tangible and intangible reasons – including wealth and strategic value (Vasquez 1993; Hensel 1996; Hensel and Mitchell 2005). Because of the value associated with this territory, these areas hold salience within the government (Vasquez 1993; Hensel 1996; Hensel and Mitchell 2005). This ensures both government interest and a level of monitoring within the region occupied by rebel groups. Because strategic privatization requires PMCs to eliminate government opposition before controlling the natural resource and collecting payment (Singer 2002; 2003), even the weakest governments, because of their interest in the territory, can acknowledge when the PMC has competed the contract and its negotiated terms.

Furthermore, unlike rebel groups, governments can enter legally binding contracts with PMCs (Dickinson 2003). Governments may enhance monitoring capabilities by legally requiring the PMC to abide by international and humanitarian laws and obtain accreditations from independent organizations (Dickinson 2003). Furthermore, governments may include contractual termination provisions to remedy the profit maximizing nature of PMCs who choose to shirk, enter noncompliance, or violate international and humanitarian law (Dickinson 2003). Because state governments are legally recognized, claims can be heard in adjudication courts – a luxury rebel groups do not possess (Dickinson 2003).

In conclusion, by contracting the security service of PMCs, states experience an increase in military power. This allows governments to tilt the balance-of-power to their advantage and accelerate the time until conflict cessation. In addition, governments of weak and failed states can offset the propensity of PMCs to maximize profits by increasing the length of conflict through the exploitation of informational asymmetry. This is accomplished through the government's use of strategic privatization and the government's ability to enforce the contract and its negotiated terms. Because of these factors, I propose that:
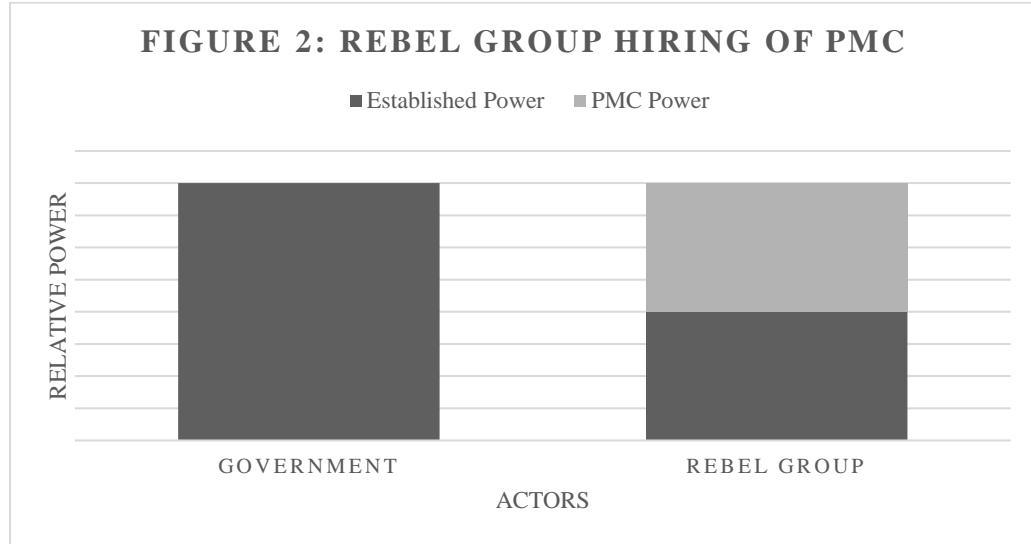
Hypothesis 1: If hired by a state government, private military firms will decrease the duration of a conflict.

REBEL GROUP CLIENTS

Despite finding no relationship between competition among PMCs and rebel groups on conflict duration (Akcinaroglu and Radziszewski 2012), current literature largely ignores the mechanisms by which PMCs influence conflict duration when contracted by a rebel group. I explore how rebel group contracting of a PMC affects the duration of conflict. Through a change in power aggregation between government forces and the rebel group, due to the security services provided by the PMC, I argue that rebel groups move towards parity with government forces. In addition, because rebel groups are largely unprofessional in nature, PMCs may exploit the informational asymmetry between themselves and the group.

In 1989, former Israeli Defense Force officers, associated with Hod Hahanit, a PMC whose name roughly translates from Hebrew as "Glory of the Spear," trained Colombian paramilitaries associated with the state's drug cartels and death squads (Singer 2001). After receiving training in military tactics and sophisticated weaponry, the paramilitaries were later involved in the assassination of two Colombian presidential candidates and the bombing of a civilian airliner (Singer 2001). The security services provided by Hod Hahanit increased the military effectiveness of the rebel group, allowing them to effectively campaign against the government.

First, PMCs expand the military power of rebel groups and increase the duration of conflict. As seen in Figure 2, by contracting the security services of a PMC and increasing the military effectiveness of the standing forces, rebel groups can diminish the superiority of the government. This reorients the balance-of-power between the rebel group and the government, moving the force-ratio closer to parity. In turn, because the rebel group's military capabilities become more balanced with that of the government, the conflict will increase in duration (Bennett and Stam 1996).

FIGURE 2: REBEL GROUP HIRING OF PMC

■ Established Power ■ PMC Power

(bar chart: vertical axis labeled RELATIVE POWER, horizontal axis labeled ACTORS with two categories: GOVERNMENT and REBEL GROUP)

Because rebel groups are structurally disadvantaged when compared to the state, PMCs will seek to exploit the group. In other words, rebel groups experience greater informational asymmetry while employing the services of a PMC when compared to the governments of weak and failed states. This occurs because governments can minimize their informational asymmetry through structural factors and the use of strategic privatization. Unlike governments of weak and failed states, rebel groups do not hold international legitimacy and sovereignty (Gent 2011). Because of this, rebel groups cannot legally offer natural resources as payment by utilizing strategic privatization (Singer 2003). However, rebel groups may offer captured or held natural resources as payment for the services provided by a PMC.

Second, the lack of professionalism of most rebel groups makes them vulnerable to exploitation by PMCs. Rebel groups, when compared to the forces of governments and PMCs, are often highly unorganized because of forced recruitment, inadequate training,

inconsistent discipline, and a drive for looting (Gates 2002). Unlike government forces, compliance is often maintained through the minimum "allocation of pecuniary rewards" obtained through looting and other financial means (Gates 2002, 119). These characteristics, when faced with the polish and professionalism of PMCs, imply that informational asymmetry exists between the rebel groups and the PMC. Because of these factors, PMCs are expected to exploit the rebel group by withholding information and prolonging conflict duration to maximize profits.

In conclusion, rebel-contracted PMCs are anticipated to increase the duration of a conflict. This occurs because the contracting of a PMC allows rebel groups to achieve parity, or near parity, with government forces. Additionally, rebel groups lack the structural characteristics, professionalism, and resources required to reduce the informational asymmetry with the PMC. Because of these two factors, I propose that:

Hypothesis 2: If hired by a rebel group, private military companies will increase the duration of a conflict.

CHAPTER IV

METHODOLOGY AND FINDINGS

I adopt the data and basic methodology of Akcinaroglu and Radziszewski (2012) to analyze the effect of PMCs on African civil wars from 1990-2008. The focus of these data is not freelance mercenaries or groups of soldiers – but instead the modern-day PMC. I analyze the post-Cold War era because PMCs within this period are described as having structure, organization, reputational awareness, and a variety of security services (Musah and Fayemi 2000; Singer 2003; Akcinaroglu and Radziszewski 2012). Modern-day PMCs are corporations with permanent locations and specified internal regulations (Singer 2003; Akcinaroglu and Radziszewski 2012). Before 1990, PMCs "were often ad-hoc groupings of former soldiers" and behaved substantially differently from their modern-day counterparts (Singer 2003; Akcinaroglu and Radziszewski 2012). This distinction is important because the inclusion of mercenaries and spontaneous makeshift groups would introduce measurement bias into the data due to fundamental differences in behavior between these actors and PMCs. The behaviors of these groups often include obtaining individual contracts directly from clients and not being subject to common institutional rules or norms – behaviors PMCs are unlikely to condone

(Singer 2003; Akcinaroglu and Radziszewski 2012).

Following Akcinaroglu and Radziszewski (2012), I narrow the focus of this analysis to African states because of the concentration of PMCs within the region and to limit the scope of analysis to a manageable level. This region attracts the greatest number of PMCs due to an abundance of weak states within the region and the high likelihood of armed conflict among rival factions (Akcinaroglu and Radziszewski 2012). In addition, because of limited international and regional involvement, governments of weak states often rely upon the security services provided through PMCs (Akcinaroglu and Radziszewski 2012). In turn, this has aided in the expansion of PMCs throughout the region (Olonisakin 2000; Akcinaroglu and Radziszewski 2012). However, because PMCs tend to operate in weak states experiencing political and economic failure, such as the case with locations outside of Africa, the data should be generalizable and representative of other civil conflicts involving the use of a PMC (Elbadawi and Sambanis 2000; Akcinaroglu and Radziszewski 2012).

DEPENDENT VARIABLE

The dependent variable is the duration of civil conflict in African states from 1990-2008. Duration, measured in years, is a continuous variable with values ranging from a minimum of one year to the maximum of sixteen years; with an average length of 4.3 years. The COW dataset does not include right censored cases – meaning no conflicts are considered ongoing after 2008. Data for this variable is available through the Correlates of War (COW) Intra-State War Dataset, 1818-2007 (v4.0) (Sarkees and Wayman 2010). Although the COW dataset fails to measure civil conflicts with low

battle-related deaths, these data are preferred because the UCDP/PRIO data do not make

strong determinations regarding the start and end dates of conflicts. I follow the

methodology of Akcinaroglu and Radziszewski (2012) and include conflicts beginning

before 1990 that are still considered ongoing in 1990 – allowing for the full conflict to be

measured instead of a portion of its duration.

The COW data defines civil war as involving "the government of the state against

a non-state entity" (Sarkees 2010, 2). Intrastate conflicts must include sustained combat

involving the use of organized armed forces and result in a minimum of 1,000 battle-

related deaths within a one year period (Sarkees 2010). To be considered a participant in

the conflict, state governments must either commit 1,000 soldiers to the conflict or suffer

100 battle-related deaths per year (Sarkees 2010). Non-state entities are required to

commit a minimum of 100 personnel or suffer at least twenty-five battle-related deaths

per year (Sarkees 2010). Conflicts within the COW dataset are considered as ended when

fatalities fall below the required threshold (Sarkees 2010). The original data had 135

observations, which encompass thirty-three conflicts, and fifteen African states. I

dropped twelve observations with missing and incorrect values. The data now have 123

observations and encompass twenty-eight conflicts within fourteen African states. These

observations, civil war/state/year, comprise my unit of analysis.

INDEPENDENT VARIABLE

The main independent variable is the presence and provision of security services

by a PMC within the state experiencing civil conflict. Data for this variable are derived

from Akcinaroglu and Radziszewski's (2012) measure of PMC competition, who built

their data by utilizing information from the British Foreign and Commonwealth Office reports from 1990-1999. The authors supplement the data with various sources, including newspaper articles, books, reports, blogs, and contracts to update the data to 2008. To ensure the reliability of the dataset, Akcinaroglu and Radziszewski (2012) consulted with country experts to verify the information, in addition to having multiple individuals collect data on the same conflict. I dichotomize the author's variables for PMC competition to indicate whether a PMC was present within the state on behalf of either the government or rebel group. This variable, varying over time, includes 5 civil wars where a PMC did not remain present for the entire duration of a conflict on behalf of a government, and 2 where a PMC did not remain present for the entire duration of a conflict on behalf of a rebel group.

CONTROL VARIABLES

I control for nine variables known to impact conflict duration; the first being proportion of forces. Cunningham et al. (2009) discuss the importance of the mobilization capacity for both rebel and government actors. The ability to mobilize or draft preponderant forces pressures the opposition and creates the opportunity to engage in direct attack (Cunningham et al. 2009). This variable is calculated by dividing government forces by rebel forces. Data for government forces is derived from two sources; the COW National Material Capabilities dataset (v4.0) (Singer et al. 1972) for the years 1990-2001 and data provided by the World Bank Indicators (World Bank 2011) for 2001-2008. Data on the size of rebel forces is provided by Cunningham et al. (2009). I log transform this variable to account for the diminishing effect of higher government

ratios. I expect the duration of conflict to be shorter when the proportion of government forces is larger than rebel forces.

Second, I account for the level of ethnic fractionalization within the state. The empirical findings on the significance of ethnic fractionalization are mixed (Fearon 2004). Collier et al. (2004) and Elbadawi and Sambanis (2000) find support for intermediate levels of ethnic diversity increasing conflict duration. Balch-Lindsay and Enterline (1999), although using a different measure of ethnic fractionalization, find no significant relationship regarding its effect on conflict duration. Fearon and Latin (2003) find states with higher levels of ethnic fractionalization are prone to experiencing increased risk for civil conflict. As the number of ethnic groups increases, brokering an agreement acceptable to all parties becomes increasingly implausible, and issues of commitment among individuals become volatile (Fearon 2004; Akcinaroglu and Radziszewski 2012).

Despite the mixed empirical evidence, I expect ethnic fractionalization to prolong conflict duration through hampering conflict resolution, as suggested by Akcinaroglu and Radziszewski (2012). Data for this variable are derived from Fearon and Laitin (2003) and is measured as the probability that two randomly-drawn people in a state are from different ethnic groups. Values near 0 represent a homogenous society, and those close to 1 indicate more heterogeneous states (Fearon and Laitin 2003). Important to note, this variable does not vary over time and was not logged due to the dichotomy of the variable.

Third, I control for state GDP per capita. I expect higher levels of GDP per capita to decrease conflict duration. Previous research (Collier et al. 2004) provides some support for GDP per capita as being negatively associated with conflict duration. As GDP

per capita increases, opportunity costs for rebellion becomes higher while state capacity to combat rebellion increases (Fearon and Laitin 2003; Collier and Hoeffler 2004), thus reducing conflict duration. I create this variable by using the Penn World Table (v6.3) (Heston et al. 2009). In addition, this variable is log transformed.

Fourth, I control for the type of issues involved within civil wars. Conflicts fought over ethnic issues are difficult to resolve due to nationalist rhetoric cementing group cleavages. In turn, these ethnic issues then create difficulty for intergroup dialogue to emerge (Akcinaroglu and Radziszewski 2012). This increases the duration of conflict by leading to an increase in distrust among ethnic groups and intensifying the security dilemma (Kaufmann 1996). Derived from Cunningham (2006), this variable is dichotomous and measured by determining the level of cohesiveness of group leadership over the course of the conflict.

Fifth, I control for regime type and expect democratic regimes to be associated with prolonged conflict duration. Previous research (Cunningham et al. 2009; Buhaug et al. 2009) has found that conflict duration differs between democracies and nondemocracies. Although seemingly counter-intuitive, democracies are expected to experience longer conflicts than nondemocracies because of a reluctance "to apply massive military force to quell" government opposition (Cunningham et al. 2009; Buhaug et al. 2009, 563). I measure this by using scores from the *Polity2* variable available from the Polity IV Project (Marshall et al. 2019). I use this variable because it allocates regime scores for those instances in which the original *Polity* variable might measure cases of interruption, interregnum, and transition. This reduces the number of missing observations that would otherwise occur.

Sixth, I control for the intensity of conflict. Previous research (Regan 2002a; 2002b) has indicated intensity, measured by the number of battle deaths per year, as influencing conflict duration. Conflicts of increasing intensity are expected to decrease the duration of conflict by "creating a mutually hurting stalemate" and encouraging negotiations between the warring parties (Regan 2002a; 2002b; Akcinaroglu and Radziszewski 2012, 808). In measuring this variable, I utilize the UCDP/PRIO Battle Deaths Dataset Version 3.0 (Lacina and Gleditsch 2005). This variable is dichotomous and measures the intensity of conflicts; wars with 25-999 battle-related deaths are measured as "0" and those with 1,000 or more are measured as "1".

Seventh, I account for a state's mountainous terrain. Terrain is a central component of military strategy used by both governments and rebel groups. Mountainous terrains serve as safe haven for rebels to hide and prolong conflict by obstructing the government's ability to achieve victory (Fearon and Latin 2003; Akcinaroglu and Radziszewski 2012). I expect this variable to increase the duration of conflict. This variable, derived from Fearon and Latin 2003, is measured by calculating the proportion of the state that is mountainous. This variable is log transformed.

Last, I control for third-party support of both the government and rebel groups. Empirical studies find simultaneous third-party interventions to increase conflict duration and to provide warring parties with continued motivation to engage in conflict (Regan 2002b; Akcinaroglu and Radziszewski 2012). Biased interventions in support of one party decrease conflict duration (Regan 2002b). The data for these two variables are derived from Cunningham et al. (2009) and is dichotomous, indicating whether third parties have aided government or rebel forces.

EMPIRICAL MODEL

Because I analyze the impact of the independent variable in determining the duration of

conflict, the use of a survival model is the preferred method. To test my hypotheses, I

will utilize a Cox proportional hazard model. Parametric models, such as the Weibull

model, apply restrictive assumptions on the dependent variable (Box-Steffensmeier and

Jones 1997). However, because I do not make assumption regarding the survival rate of

civil conflicts with the data, the Cox model is recommended in estimating the time until

conflict termination. Given the model, I test the proportional hazards assumption and find

no violations regarding any of the variables used within this analysis.

RESULTS AND ANALYSIS

As shown below, Figure 3 describes the average duration of all civil conflicts

included within this analysis. In addition, Figure 4 illustrates the survival rate for civil

conflicts where government or rebel forces contract a PMC. The figure shows civil

conflicts involving the use of a government contracted PMC as being shorter than those

where no PMC is present. In fact, half of these conflicts are shown to be over within four

years. Of the eight conflicts where the government contracts the security services of a

PMC, the average duration is 2.5 years. The twenty-six conflicts where the government

does not contract a PMC last an average of 4.5 years. Additionally, a similar relationship

is shown for rebel groups' contracting a PMC. Civil conflicts with a PMC are shorter in

duration compared to those where no PMC present. These four conflicts involving rebel

contracting of a PMC have an average duration of 1.25 years. Of the twenty-six civil

conflicts without rebel contracting of a PMC, the average duration of a conflict is 4.7

years. Furthermore, Table 1 shows the descriptive statistics of the variables used throughout the analysis.

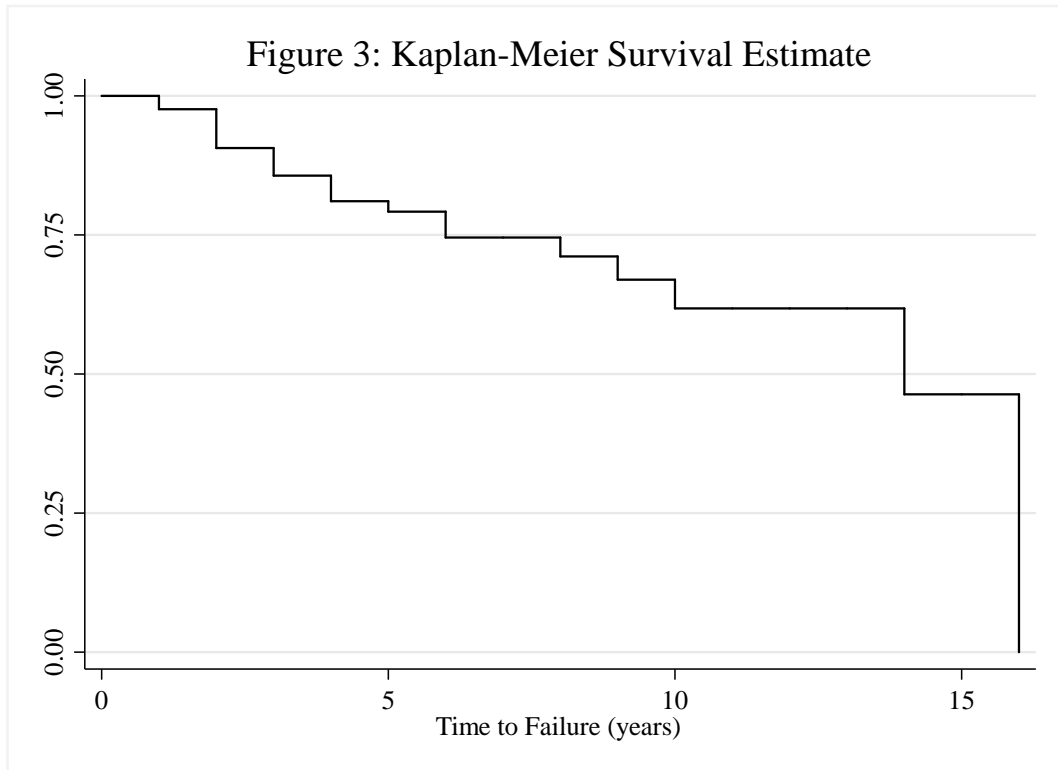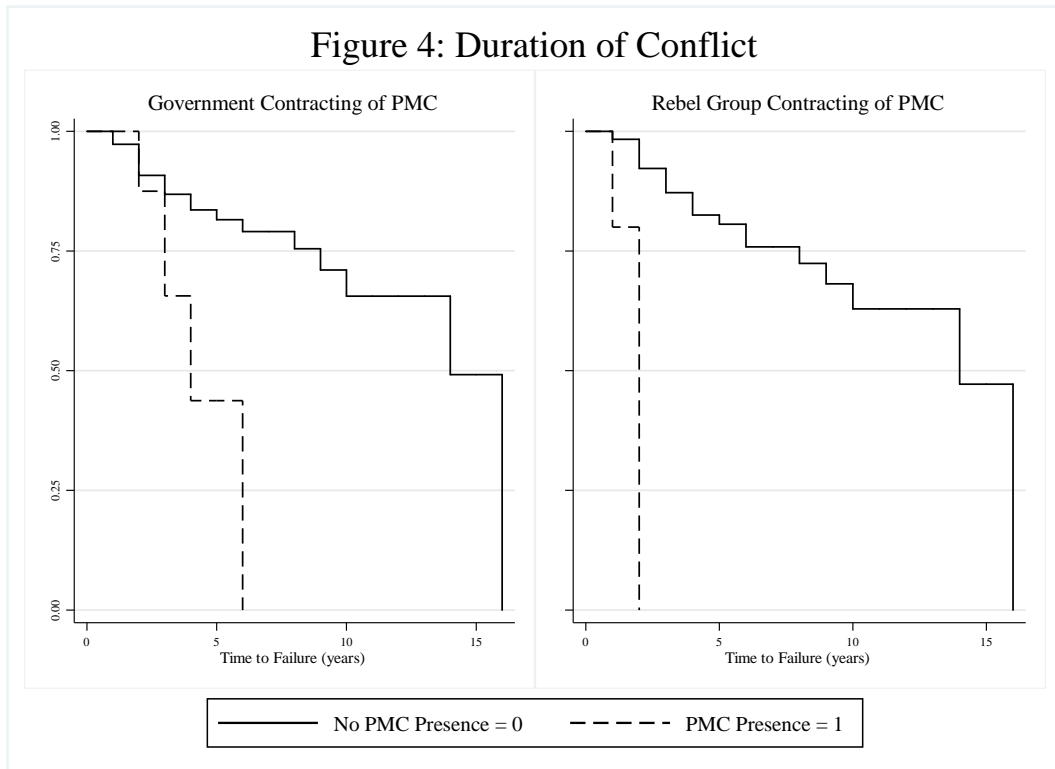## Figure 3: Kaplan-Meier Survival Estimate

Figure 4: Duration of Conflict

While Figure 4 suggests PMCs may affect conflict duration, it is important to note that this effect might not be causal. For instance, conflicts involving the contracting of a PMC could be different from those where security services are not provided. For example, the firm, concerned about its reputation, may only enter conflicts they perceive as having minimal risk. This is to ensure that the PMC emerges as the victor and to limit the danger to its deployed assets (Singer 2002; 2003). On the other hand, this relationship may be causal, suggesting that PMCs do affect conflict duration, thus warranting further investigation.

In addition, although Figure 4 showcases an interesting narrative, it merely describes a bivariate relationship between PMCs and conflict duration and does not

consider the effects of other variables. Table 2 presents the results of a multivariate

survival analysis testing the impact of PMC presence on conflict duration. I use hazard

ratios for the coefficients of my model; these are interpreted on whether the values

exceed 1 (Box-Steffensmeier and Jones 1997; Bueno de Mesquita et al. 1999). Ratios

greater than 1 are interpreted as the variable increasing the risk of failure – or the

shortening of conflict duration. Hazard ratios less than 1 indicate a decrease in the risk of

failure – or the prolonging of civil conflict.

Table 1. Statistics

Variables	rho	chi^2	Degrees of Freedom	Prob>chi^2
PMC Presence Government	0.142	0.95	1	0.329
PMC Presence Rebel Group	0.043	0.16	1	0.69
GDP per capita	0.104	0.32	1	0.572
Ethnic Fractionalization	-0.065	0.27	1	0.601
Ethnic Conflict	0.007	0.00	1	0.957
Conflict Intensity	-0.034	0.04	1	0.842
Mountainous Terrain	0.025	0.03	1	0.844
Regime Type	-0.023	0.05	1	0.862
Proportion of Forces	0.031	0.48	1	0.824
Support Government	0.150	1.75	1	0.489
Support Rebel Group	0.099	0.48	1	0.186

Table 2. PMC Presence on Conflict Duration in Africa, 1990-2008

Variables	
PMC Presence Government	1.686
	(1.470)
PMC Presence Rebel Group	9.684
	(14.676)
GDP per capita	0.828
	(0.225)
Ethnic Fractionalization	0.115
	(0.156)
Ethnic Conflict	0.853
	(0.536)
Conflict Intensity	0.954
	(0.593)
Mountainous Terrain	0.762***
	(0.053)
Regime Type	1.183***
	(0.069)
Proportion of Forces	1.173
	(0.152)
Support Government	0.443
	(0.336)
Support Rebel Group	1.701
	(1.625)
N	123
Failures	24
Log Likelihood	-76.421
LR chi^2	56.06***

Note: Hazard ratios with robust standard errors clustered on group in parentheses
*$p < .1$, **$p < .05$, ***$p < .01$

Table 2 provides the results from my tests of the two hypotheses. My first hypothesis suggested that government contracting of a PMC decreases conflict duration. This occurs by augmenting the military power of the government, increasing its preponderance over the rebel group. Informational asymmetry, in this case, is hypothesized to have a minor, if any, effect. Furthermore, by utilizing enforceable contracts, governments can limit PMC noncompliance and shirking. Unfortunately, I find no support for this hypothesis as my main independent variable, *PMC Presence Government* fails to achieve significance.

Although it is difficult to determine the precise cause of this result, the possibilities include the use of guerilla warfare by rebel groups and the effect of different types of PMC services. Previous literature (Wood et al. 2012) indicates that armed intervention, altering the balance-of-power on behalf of government forces, may lead rebels to change their tactics. This altering of rebel group behavior then results in the use of guerilla warfare and the targeting of civilian populations (Wood et al. 2012). Because of these tactics, the government and PMC, working in concert, may be unable to effectively combat the hostilities of rebel groups. The mix of these types of conflicts, coupled with more traditional civil conflicts in the data, may affect my results.

Furthermore, (Petersohn 2017) suggests a differential effect between the types of security services provided by PMCs. Because my data does not measure the type of security services provided by the PMC, this may account for the result see in Table 2. Additionally, because there are only eight conflicts involving governmental use of PMCs, the data may be limited in that some of these conflicts may include the contracting of security services suggested to be less effective in combating rebel opposition.

In my second hypothesis, I suggest that rebel contracting of a PMC increases conflict duration. In doing so, rebel groups move toward parity with government forces. In turn, this increases the duration of conflict by providing the government with a more capable adversary. Additionally, because of the limited monitoring capabilities and the lack of professionalism within rebel groups, PMCs are prone to exploit their informational asymmetry with rebel groups – thus increasing conflict duration. Here too, I fail to find support for my main independent variable.

As with Hypothesis 1, it is difficult to determine the precise cause of this result. Possible explanations could include a higher-level of professionalism among rebel groups and the small sample of cases within the data involving rebel contracting of PMCs. For example, through the exploitation of natural resources, rebel groups have been able to acquire the funds required to obtain the services provided by PMCs (Singer 2002; 2003). These resources, such as various rare earth minerals, oil and natural gas, and drugs, have been recorded as a viable method of constructing a private army or supplementing current forces (Singer 2003). For instance, UNITA financed "the private construction and maintenance of an entire mechanized field army through a nearly $2 billion diamond trade" (Singer 2003, 61). This has allowed non-state actors to gain a nearly-equal, militarily-competitive edge with government forces and may indicate a level of competence and professionalism within the rebel group.

Of my nine control variables, only mountainous terrain and regime type are significant. With a hazard ratio of 0.762, this suggests an increase in conflict duration of 23.8% per unit increase. In line with previous literature (Fearon and Laitin 2003; Lujala 2010), mountainous terrain is found to increase the duration of conflict by providing

areas of refuge for rebel groups to reorganize and obstruct government victory through

evasion, thus increasing the duration of a conflict.

Contrary to previous research, I find that regime type decreases conflict duration.

For this variable, the hazard ratio is 1.183, which indicates an 18.3% decrease in conflict

duration per unit increase. Previous literature (Cunningham et al. 2009; Buhaug et al.

2009) suggests that democracies experience longer conflicts due to their reluctance to

issue the utmost force against the opposition. However, the overwhelming number of

cases in my data are from nondemocratic or anocratic regimes. Because anocracies are

suggested to be the government type most prone to experiencing civil conflict (Walter

2004; Muller and Weede 1990; Ellingsen and Gleditsch 1997), this may explain the result

of the variable. Furthermore, this result may also be the result of the limited variance with

the regime type variable and the constrained temporal domain of the data, as there is only

one democratic state within the data.

CHAPTER V

CONCLUSION

Previous literature has primarily concentrated on the negative aspects associated

with PMCs. Researchers have thoroughly investigated the relationship between human

rights violations and the legal status of PMCs under international law, along with the

methods best able to remedy these dilemmas (Cameron 2006; Carney 2006; Doswald-

Beck 2007). However, a minimal amount of literature has examined the effects of PMCs

on conflict (Akcinaroglu and Radziszewski 2012; Petersohn 2017). As previous literature

has failed to consider the mere presence of these actors on conflict duration, I sought to

explore this effect by conducting an empirical analysis on the relationship between PMCs

and civil conflict duration in Africa.

I contribute to the current literature by theorizing new and exploring previously-

mentioned, mechanisms by which PMCs may influence conflict duration when

contracted by a government. Through power aggregation, PMCs are able to increase the

military power of both government and rebel group clients – thus contributing to conflict

duration. I propose that government clients, in contrast to rebel groups, are better able to

offset the propensity for PMCs to exploit the limited monitoring capabilities of the state.

This occurs through the government's increased ability to monitor territory, engage in the

use of strategic privatization, and enter legally-binding contracts with negotiated terms. In turn, upon government contracting of a PMC, these factors were suggested to reduce conflict duration.

In addition, I theorize the mechanisms by which PMCs may contribute to conflict duration when employed by a rebel group. Through an increase in military power, the security services provided by the PMC move the rebel group towards parity with government forces. In turn, this makes the rebel group a more formidable adversary. Furthermore, because most rebel groups lack professionalism, are unable to engage in the use of strategic privatization, and are unable to enter legally binding agreements, the PMC is expected to exploit their informational asymmetry to engage in the maximization of profits. In turn, these theorized mechanisms were hypothesized to increase conflict duration. Because previous literature (Akcinaroglu and Radziszewski 2012; Petershon 2017) fails to mention the mechanisms by which PMCs contribute to rebel groups, I believe this thesis has taken the necessary steps to begin discussion and promote future research among scholars.

In measuring this relationship, I utilize the COW data and include control variables expected to impact conflict duration. Through the use of a multivariate Cox proportional hazard model, I find no support for either hypothesis. Despite this, these findings contribute to the current literature by suggesting that the mere presence of a PMC within civil conflict may not be essential in determining conflict duration. Furthermore, because these results are contrary to the findings of Akcinaroglu and Radziszewski (2012), these findings may suggest that competition, rather than presence,

is an essential factor in determining whether PMCs have an effect on intrastate conflict duration.

LIMITATIONS

Because my data does not measure the type of services offered by PMCs, this may be the result of my many contrary findings. Petersohn (2017) describes the individual effects of private security services on conflict severity and suggests a differential effect. Future research should account for variation in PMC services as this could produce meaningful results. Because governments may employ multiple services, such as the case with the United States in Afghanistan, this would allow researchers to determine the security service most effective in reducing conflict duration.

In addition, my data are temporally limited. Because I only measure conflicts from 1990 to 2008, the results may not be indicative of all civil wars. There are a number of civil conflicts within Africa occurring after 2008, such as in Nigeria (Bayley 2016), where governments have contracted the security services of a PMC. As such, these cases would provide more cases within the data and could produce fruitful results. Also, the cases included within the data should predate 1990, as it is still important to distinguish between modern-day PMCs and those of the past.

Furthermore, the data are limited as it only includes civil conflicts within Africa. This reduces the number of conflicts where the security services of a PMC were contracted by either government or rebel group forces. While Africa has suffered a disproportionate share of civil conflicts since the mid-1990s (Elbadawi and Sambanis 2000; Blattman and Miguel 2010), making the region suitable for testing theories

concerning civil conflict, a broader dataset of cases could allow scholars to determine conclusively whether these effects are consistent in a broader range of cases. In addition, future data efforts should include insurgencies, as these conflicts often include unique features distinguishing themselves from civil conflicts (Fearon and Laitin 2003).

FUTURE RESEARCH

The contracting of PMCs in both international and intrastate conflict has increasingly become more common since the 1990s (Singer 2003), and there is no indication of a decline in the states' frequency to utilize private security services. The war in Afghanistan is largely built upon contracted military, as further involvement of U.S. troops within the region has often been considered "political suicide" for public officials (Singer 2002; 2003; McFate 2016). Additionally, with Congress establishing limits on the number of U.S. troops which may be deployed to a region, the United States is seemingly left to resort to the security services provided by PMCs (McFate 2016).

Currently, peace negotiations are underway between U.S. forces and the Taliban to end the nearly 20-year war in Afghanistan. During a press conference, President Donald Trump commented that it is "time for someone else to do that work [referring to the war in Afghanistan]" (BBC News 2020). However, Blackwater and DynCorp, at the request of Steve Bannon and Jared Kushner, proposed that the United States should use PMCs to "fix" Afghanistan (McFate 2017). With U.S. and allied forces slowly leaving the region upon the successful negotiation of the agreement, the possibility exists that "someone else" could be PMCs.

Regardless of the United States future strategy in Afghanistan and with the continued rise of PMCs throughout the globe, there are many avenues for further research. The contracting of private security services by failed or weak states and rebel groups has lowered the barriers to achieve military power (Singer 2002; 2003). No longer are states required to dedicate the time, the economic resources, or the industry necessary to wage conflict (Singer 2002; 2003). Future research must continue to evaluate the relationship between the ability of weak states to acquire such services and conflict duration as the impacts of intrastate conflicts could have enormous regional and international implications. Additionally, future contributions to the literature should not be limited to civil or regional conflicts, but instead expand into the use of PMCs by those states with considerable and established military strength. For example, future research should examine the use of PMCs by the United States in Iraq and Afghanistan and determine whether private security services had an effect on the duration of those insurgencies.

Researchers must begin constructing reliable, complete, and comprehensive data to properly measure the relationship between PMCs and conflict. Because the utilization of PMCs occurs on an international level, this data should include cases of both interstate and intrastate conflicts where both governments and rebel groups contract private security services. In addition, this data should attempt to expand the temporal and spatial range of cases within the data. By measuring conflicts post-2008, and by including cases of PMC contracting by governments in the fight against global terrorism, this data would capture an increased number of cases that may potentially alter the understanding of relationship the between PMCs and conflict. Furthermore, instead of being measured by

year, this data could include observations by month. In turn, this would allow for the

measurement of brief conflicts within a variety of regions where PMCs are deployed.

REFERENCES

Akcinaroglu, Seden, and Elizabeth Radziszewski. 2013. "Private Military Companies, Opportunities, and Termination of Civil Wars in Africa." *Journal of Conflict Resolution* 57 (5): 795-821.

Balch-Lindsay, Dylan, and A. J. Enterline. 2000. "Killing Time: The World Politics of Civil War Duration, 1820–1992." *International Studies Quarterly* 44 (4): 615-642.

Balch-Lindsay, Dylan, Enterline, A. J., and Kyle A. Joyce. 2008. "Third-Party Intervention and the Civil War Process." *Journal of Peace Research 45* (3): 345-363.

Bayley, Bruno. 2016. "What Does Nigeria's Use of Private Military Companies Against Boko Haram Mean for the World?". *Vice News*. https://www.vice.com/en_us/article/exqe9z/nigeria-pmcs-boko-harem

BBC News. 2020. "Afghan Conflict: US and Taliban sign deal to end 18-year War." *BBC News*. https://www.bbc.com/news/world-asia-51689443

Bennett, Scott D., and Allen C. Stam. 1996. "The Duration of Interstate Wars, 1816–1985." *American Political Science Review* 90 (2): 239-257.

Berman, Eric G., and Nicolas Florquin. 2005. "Armed Groups and Small Arms in ECOWAS Member States (1998-2004)." In *Armed and Aimless: Armed Groups, Guns, and Human Security in the ECOWAS Region*, edited by Berman and Florquin, 224-388. Geneva, Switzerland: Small Arms Survey.

Blattman, Christopher and Edward Miguel. 2010. "Civil War." *Journal of Economic Literature*. 48 (1): 3-57.

Box-Steffensmeier, Janet M., and Bradford S. Jones. 1997. "Time Is of the Essence: Event History Models in Political Science." *American Journal of Political Science* 41 (4): 1414–61.

Broder, John M. and Brian Knowlton. 2007. "Blackwater Chief Defends Employees Before House Panel." *The New York Times*. https://www.nytimes.com/2007/10/02/washington/02cnd-blackwater.html

Buhaug, Halvard, Gates, Scott, and Paivi Lujala. 2009. "Geography, Rebel Capability, and the Duration of Civil Conflict." *Journal of Conflict Resolution* 53 (4): 544-569.

Cameron, Lindsey. 2006. "Private Military Companies: Their Status under International Humanitarian Law and Its Impact on Their Regulation." *International Review of the Red Cross* 88 (863): 573-598.

Carney, Heather. 2006. "Prosecuting the Lawless: Human Rights Abuses and Private Military Firms." *George Washington Law Review*. 74 (2): 317-344.

Collier, Paul. 1999. "Doing Well Out of War." *Conference on Economic Agendas in Civil Wars, London* 26 (27): 1-15.

Collier, Paul, and Anke Hoeffler. 2004. "Greed and Grievance in Civil War." *Oxford Economic Papers* 56 (4): 563-595.

Collier, Paul, Hoeffler, Anke and Mans Soderbom. 2004. "On The Duration of Civil War." *Journal of Peace Research* 41 (3): 253-273.

Cunningham, David E. 2006. "Veto Players and Civil War Duration." *American Journal of Political Science* 50 (4): 875-92.

Cunningham, David E., Gleditsch, Kristian Skrede, and Idean Salehyan. 2009. "It Takes Two: A Dyadic Analysis of Civil War Duration and Outcome." *Journal of Conflict Resolution* 53 (2): 570-97.

Cunningham, David E. and Douglas Lemke. 2013. "Combining Civil and Interstate Wars." *International Organization* 67 (3): 609-627.

De Mesquita, Bruce B., Morrow, James. D., Siverson, Randolph. M., and Alastair Smith. 1999. "Policy Failure and Political Survival: The Contribution of Political Institutions." *Journal of Conflict Resolution* 43 (2): 147-161.

Dickinson, L. A. 2003. "Chapter 12 – Contract as a Tool for Regulating Private Military Companies." *Columbia Law Review* 103: 1367-1390.

Doswald-Beck, Louise. 2007. "Chapter 7 - Private Military Companies under International Humanitarian Law." In *Mercenaries to Market: The Rise and Regulation of Private Military Companies*. 115-139.

Elbadawi, Ibrahim and Nicholas Sambanis. 2000. "External Interventions and the Duration of Civil War." Manuscript, World Bank, DECRG. http://econ.worldbank.org/programs/conflict

Elbadawi, Ibrahim and Nicholas Sambanis. 2000. "Why Are There So Many Wars in Africa? Understanding and Preventing Violent Conflict." *Journal of African Economies* 9 (3): 244-269.

Ellingsen, Tanja and Nils P. Gleditsch. 1997. "Democracy and Armed Conflict in the Third World." *Causes of Conflict in Third World Countries*. 69-81.

Faulkner, Christopher M. 2019. "Buying Peace? Civil War Peace Duration and Private Military & Security Companies." *Civil Wars* 21 (1): 83-103.

Fearon, James D. 2004. "Why Do Some Civil Wars Last So Much Longer Than Others?." *Journal of Peace Research* 41 (3): 275-301.

Fearon, James D., and David D. Laitin. 2003. "Ethnicity, Insurgency, and Civil War." *American Political Science Review* 97 (1): 75-90.

Findley, Michael G., and Tze Kwang Teo. 2005. "Coding Rules and Methodological Appendix for Rethinking Third Party Interventions into Civil Wars: An Actor-Centric Approach." *Journal of Politics* 68 (4): 828-837.

Francis, David J. 1999. "Mercenary Intervention in Sierra Leone: Providing National Security or International Exploitation?" *Third World Quarterly* 20 (2): 319-38.

Gent, Stephen E. 2011. "Relative Rebel Strength and Power Sharing in Intrastate Conflicts." *International Interactions* 37 (2): 215-228.

Gates, Scott. 2002. "Recruitment and Allegiance: The Microfoundations of Rebellion." *Journal of Conflict Resolution* 46 (1): 111-130.

Gillan, Audrey. 2009. "Blackwater: Private US Security Firm Mired in Iraq Controversy." *The Guardian*. https://www.theguardian.com/world/2009/jan/29/blackwater-iraq-security-contractor

Hensel, Paul R. 1996. "Charting a Course to Conflict: Territorial Issues and Interstate Conflict, 1816-1992." *Conflict Management and Peace Science* 15 (1): 43-73.

Hensel, Paul R., and Sara M. Mitchell. 2005. "Issue Indivisibility and Territorial Claims." *GeoJournal* 64 (4): 275-285.

Heston, Alan, Summers, Robert and Bettina Aten. 2009. *Penn World Table Version 6.3*. Center for International Comparisons of Production, Income and Prices, University of Pennsylvania.

Kaufmann, Chaim. 1996. "Possible and Impossible Solutions to Ethnic Civil Wars." *International Security* 20 (4): 136-75.

Kramer, Andrew E. 2017. "Russia Deploys a Potent Weapon in Syria: The Profit Motive." *The New York Times*. https://www.nytimes.com/2017/07/05/world/middleeast/russia-syria-oil-isis.html.

Koplin, H. T. 1963. "The Profit Maximization Assumption." *Oxford Economic Papers* 15 (2): 130-139.

Lacina, Bethany, and Nils P. Gleditsch. 2005. "Monitoring Trends in Global Combat: A New Dataset of Battle Deaths." *European Journal of Population* 21 (2-3): 145-66.

Leander, Anna. 2005. "The Market for Force and Public Security: The Destabilizing Consequences of Private Military Companies." *Journal of Peace Research* 42 (5): 605-622.

Leander, Anna. 2005. "The Power to Construct International Security: On the Significance of Private Military Companies." *Millennium* 33 (3): 803-825.

Lo, Nigel, Hashimoto, Barry and Dan Reiter. 2008. "Ensuring Peace: Foreign-Imposed Regime Change and Postwar Peace Duration, 1914–2001." *International Organization* 62 (4): 717-736.

Lowery, David and Virginia Gray. 1995. "The Population Ecology of Gucci Gulch, or the Natural Regulation of Interest Group Numbers in the American States." *American Journal of Political Science* 39 (1): 1–29.

Lujala, Paivi. 2010. "The Spoils of Nature: Armed Civil Conflict and Rebel Access to Natural Resources." *Journal of Peace Research* 47 (1): 15-28.

Marshall, Monty G., Gurr, Ted R., and Keith Jaggers. 2019. *Polity IV Project. Political Regime Characteristics and Transitions, 1800-2009*.

McFate, Sean. 2016. "America's Addiction to Mercenaries." *The Atlantic*. https://www.theatlantic.com/international/archive/2016/08/iraq-afghanistan-contractor-pentagon-obama/495731/

McFate, Sean. 2017. "The 'Blackwater 2.0' Plan for Afghanistan." *The Atlantic*. https://www.theatlantic.com/international/archive/2017/07/afghanistan-erik-prince-trump-britain/533580/

Millett, Allan R., Williamson, Murray and Kenneth H. Watman. 1986. "The Effectiveness of Military Organizations." *International Security* 11 (1): 37-71.

Milliard, T. S. 2003. "Overcoming Post-Colonial Myopia: Call to Recognize and Regulate Private Military Companies." *Military Law Review 176*: 1-95.

Moul, William. 2003. "Power Parity, Preponderance, and War between Great Powers, 1816-1989." *Journal of Conflict Resolution* 47 (4): 468-489.

Muller, Edward. N. and Erich Weede. 1990. "Cross-National Variation in Political Violence: A Rational Action Approach." *Journal of Conflict Resolution* 34 (4): 624-651.

Musah, Abdel-Fatau, and J. Kayode Fayemi. 2000. "Africa in Search of Security: Mercenaries and Conflicts—an Overview." In *Mercenaries: An African Security Dilemma*, edited by Abdel-Fatau Musah and J. Kayode Fayemi, 13-42. London: Pluto.

Nemeth, Stephen. 2014. "The Effect of Competition on Terrorist Group Operations." *Journal of Conflict Resolution* 58 (2): 336-362.

Olonisakin, Funmi. 2000. "Arresting the Tide of Mercenaries: Prospects for Regional Control." In *Mercenaries: An African Security Dilemma*, edited by Abdel-Fatau Musah and J.Kayode Fayemi, 233-57. London, England: Pluto.

Organski, Abramo F.K., and Jacek Kugler. 1981. "*The War Ledger.*" University of Chicago Press.

Peters, Heidi M. and Sofia Plagakis. 2019. "Department of Defense Contractors and Troop Levels in Afghanistan and Iraq: 2007-2018." *Congressional Research Service*. 1-18.

Petersohn, Ulrich. 2017. "Private Military and Security Companies (PMSCs), Military Effectiveness, and Conflict Severity in Weak States, 1990–2007." *Journal of Conflict Resolution* 61 (5): 1046-1072.

Regan, Patrick. 1996. "Conditions of Successful Third-Party Intervention in Intrastate Conflicts." *Journal of Conflict Resolution* 40 (2): 336-359.

Regan, Patrick. 2002a. "The Short-term Effects of Military Interventions in Civil Conflict." *International Negotiation* 7 (3): 1-19.

Regan, Patrick. 2002b. "Third Party Interventions and the Duration of Intrastate Conflicts." *Journal of Conflict Resolution* 46: 55-73.

Regan, Patrick, and Aysegul Aydin. 2006. "Diplomacy and Other Forms of Intervention in Civil Wars." *Journal of Conflict Resolution* 50 (5): 736-756.

Regan, Patrick, and Allen C. Stam. 2000. "In the Nick of Time: Conflict Management, Mediation Timing, and the Duration of Interstate Disputes." *International Studies Quarterly* 44 (2): 239-260.

Sarkees, Meredith Reid and Frank Wayman. 2010. "*Resort to War: 1816 - 2007.*" *Washington DC: CQ Press.*

Sherman, Jake H. 2000. "Profit vs. Peace: The Clandestine Diamond Economy of Angola." *Journal of International Affairs Editorial Board* 53 (2): 699-719.

Singer, J. David, Bremer, Stuart and John Stuckey. 1972. "Capability Distribution, Uncertainty, and Major Power War, 1820-1965." In *Peace, War, and Numbers, Beverly Hills*, edited by Bruce Russett, 19-48. Sage.

Singer, P. W. 2001/2002. "Corporate Warriors: The Rise of the Privatized Military Industry and Its Ramifications for International Security." *International Security* 26 (3): 186-220.

Singer, P. W. 2003. "*Corporate Warriors: The Rise of the Privatized Military Industry*." Ithaca, NY: Cornell University Press.

Sukhankin, Sergey. 2018. "Continuing War by Other Means: The Case of Wagner, Russia's Premier Private Military Company in the Middle East." *Russia in the Middle East*. 290-319.

Vasquez, John A. 1993. "*The War Puzzle*." Cambridge: Cambridge University Press.

Walter, Barbara F. 2004. "Does Conflict Beget Conflict? Explaining Recurring Civil War." *Journal of Peace Research* 41 (3): 371-388.

Wilson, James Q. 1995. "*Political Organizations*." Princeton University Press.

Wood, Reed. M., Kathman, Jacob D., and Stephen E. Gent, 2012. "Armed Intervention and Civilian Victimization in Intrastate Conflicts." *Journal of Peace Research* 49 (5): 647-660.

World Bank Development Indicators Database, 2020. http://databank.worldbank.org

Zartman, William I. 1995. "Dynamics and Constraints in Negotiations in Internal Conflicts." In *Elusive Peace: Negotiating an End to Civil Wars*, edited by Zartman, William I. Washington. DC: Brookings Institution.

VITA

Dalton Shane Woodring

Candidate for the Degree of

Master of Arts

Thesis: PRIVATE MILITARY COMPANIES IN AFRICA: A STUDY ON THE
EFFECTS OF CONFLICT DURATION

Major Field: Political Science

Biographical:

Education:

Completed the requirements for the Master of Arts in Political Science at
Oklahoma State University, Stillwater, Oklahoma in May, 2020.

Completed the requirements for the Bachelor of Arts in Political Science at
Oklahoma State University, Stillwater, Oklahoma/United States of America in
2020.

Experience:

Professional Memberships: