The Market for War and Peace: An Economic Perspective on the Privatized Military Industry

Tomas Garcia

Tufts University Department of Political Science
Advisor: Dr. Kelly Greenhill
Reader: Dr. Dan Richards
Reader: Dr. Richard Eichenberg
May 1, 2012

Acknowledgements

I wish to acknowledge the contributions of several individuals to my Senior Honors Thesis.

First, I would like to thank my friends, family, and colleagues who supported me over the year.

Second, my sincere thanks to Dr. Dan Richards without whom the economic analysis developed in the thesis would not have been possible.

Third, I would like to thank Dr. Richard Eichenberg for agreeing to participate as a member of my thesis committee, in addition to providing me with welcome feedback through the fall thesis seminar.

Finally, I express my deepest gratitude to my Director, Dr. Kelly Greenhill, who has been an invaluable source of counsel over my four years at Tufts University, and who always provided me with encouragement when I needed it most.

Table of Contents

Introduction

"Every state is founded on force."
– Leon Trotsky

Modern theories of politics and economics rest on the assumption that force and statehood share an explicitly intimate bond. In addition to the lawful collection of taxes and secure control over territorial borders, the legitimate use of force rounds out the traditional trifecta of duties borne by the state. By maintaining control of all aspects governing violence, whether through sanction or use, the state preserves its inherent monopoly on the rightful use of military power. While physical violence is certainly not the sole method of coercion available to a state, the two prove inseparable. Max Weber's definition of the state, made in 1919, reigns as one of the most oft cited among academics, arguing that "a state is a human community that (successfully) claims the *monopoly of the legitimate use of physical force* within a given territory." Despite such a proclamation, Weber goes on to articulate that "the right to use physical force is ascribed to other institutions or to individuals only to the extent to which the state permits it."[1] While Weber's statements maintain a certain degree of legitimacy in modern times, they have arguably been eroded over the past two decades with a simultaneous rise in the activity of organized, privatized warfare. From the 1995 suppression of the Revolutionary United Front in Sierra Leone with novel tactics and relatively superior weaponry[2] to the training of Iraqi security forces in 2004[3], the private sector has expanded its reach over the years into the most sacred realm of the nation-state.

Exploring the intersection between the public and private sectors of the military complex requires first delineating the underpinnings of the two. The public sector operates on a

---

[1] Weber, "Politics as a Vocation," 1.
[2] Harding, "The Mercenary Business: 'Executive Outcomes'", 96.
[3] "Review of DynCorp International, LLC, Contract Number S-LMAQM-04-C-0030, Task Order 0038, For the Iraqi Police Training Program Support," 1.

straightforward model, based on the foundational assumption that a state's paramount concern is the security of its citizens. Primarily funded through an established system of taxation, a government seeks to safeguard its populace through physical protection and through social services targeted towards increasing a state's general standard of living. Consumers of public goods, in essence, trade a portion of their monetary freedom in exchange for the security provided by governments. In stark contrast, the private sector operates as an open market of sorts. Here, consumers choose how to allocate their income based on rationally perceived needs for goods and services. Instead of a government serving as the counterparty to each transaction, the sell-side is composed of private firms motivated first and foremost by profit. In such a fashion, "the distinctions between these two sectors" come down to "the sources of funding, the nature of the relationship between provider and user, and the employment status of the deliverers."[4] How then, have these two distinct sectors grown so inextricably linked? While not necessarily a recent phenomenon, the private sector has grown to fill demand in the previously public market for force by providing services including "combat operations, strategic planning, intelligence, risk assessment, operational support, training, and technical skills."[5] The world that Weber described then, finds itself standing at the edge of a precipice. The barriers preventing the private military industry from performing traditionally public functions have increasingly deteriorated, giving rise to "a burgeoning transnational market for force" that "now exists alongside the system of states and state forces."[6] The shift towards corporatized security raises numerous challenges to traditional assumptions governing politics and bloodshed.

The economic intricacies governing the deployment of Privatized Military Firms, or PMFs, prove relevant for both intellectual and pragmatic reasons. From an academic perspective, these firms represent a marked departure from the classical face of warfare in both their

---

[4] Singer, *Corporate Warriors: The Rise of the Privatized Military Industry*, 7.
[5] Ibid, 8.
[6] Avant, *The Market for Force: The Consequences of Privatizing Security*, 3.

structural organization and deployment. By providing a challenge to the assumption that the state possesses a monopoly on the legitimate use of force, PMFs raise questions about the relevancy of the sovereign nation-state. From an economic perspective, billions of dollars in U.S. Government contracts flow to PMFs every year. Taxpayers therefore have a vested interest in making sure that these firms are producing a perfect substitute for government services at a lower cost. From a sovereign state standpoint, PMFs offer a way out of otherwise undesirable involvement on the international level, providing new approaches to address delicate situations such as humanitarian interventions. Recent post-9/11 PMF deployments in Iraq and Afghanistan demonstrate the immediate relevancy of these companies to the American military machine, with the added unintended corollary of elevating debate on the ethics of privatized peace into the mainstream media. As such, the market for war and peace emerges as a significant area of study and raises academic, economic, and moral questions.

This thesis seeks to address the economic foundations of Privatized Military Firms in an objective manner, without pursuing a moral stance on the subject of their deployment. Rather, I intend to focus on the structures governing modern-day PMF employment. Four overarching questions govern my research, providing an ample framework for investigation.

What is a Privatized Military Firm? Beginning with an exploration of the rise and evolution of PMFs, from the date of their earliest existence to the modern-day process for defining them, I plan on establishing a typology within which to best view these organizations. Existing scholarly literature fails to agree upon one simple definition, with the main distinction drawn between authors' conceptualizations being the relevant unit of analysis, i.e. an individual employee or an entire corporation. After denoting a definition within which to study individual cases, I will turn to an in-depth economic analysis of PMF costs and benefits.

How does a contract, the fundamental underpinning of the way business in modern society is conducted, play a role in the employment of Privatized Military Firms? Following a theoretical overview of the contract law governing the privatized military industry, I delve into an exploration of how specific contracts are actually arrived upon, between a governmental agency and a PMF. I seek to investigate examples of structural inefficiencies built into the contracting system, particularly in the utilization of anti-competitive measures such as no-bid contracts and non-competitively extended contracts. Finally, I construct a model illustrating both the delicate contract bidding process and an ensuing inefficiency.

How do choices regarding corporate structure affect the privatized military industry? Far from the old image of a retired military officer in a room with a Rolodex,[7] I argue that PMFs are highly sophisticated organisms, operating in a dynamic, project-based environment. Further exploration of the mechanics of the industry will uncover an economic inefficiency known commonly as the problem of "double marginalization," revealing a mathematically derived and isolated price markup passed on from the top of the supply chain down to the consumer level. Finally, I will investigate the benefits of asset-light operations by detailing the history of a notorious PMF, Blackwater/Xe Services/Academi. The examination will reveal the unique advantages afforded by such a structural organization, advantages that often go unmentioned in analysis of the privatized military industry.

What are the challenges associated with constructing a proper cost-benefit analysis, accurately comparing the cost and effectiveness of a PMF employee to a U.S. military soldier? By incorporating transaction cost economics into traditional methods of analysis, I will develop a more complete picture of PMFs versus their public counterparts. Notably, the "ex-factor," or the sunk cost of training a U.S. soldier, as well as consideration of the actual value-add created by

[7] Silverstein, "Privatizing War: How Affairs of State are Outsources to Corporations beyond Public Control," *The Nation*, 11.

PMF contracting, are left out of prior analyses. These factors are critical to consider, ultimately yielding a comprehensive comparison between PMF employment and public-military provision of identical services.

Questions concerning economic inefficiencies in the market for force are the central focus of my research. While the privatized military sector indeed deserves investigation from multiple angles, I restrict the scope of my thesis to economic analysis of the political decision to outsource security. In my conclusions, I will briefly recapitulate my findings before providing overarching recommendations on how the United States government can better regulate the privatization of the military complex through expanded oversight, with the goal of addressing the economic inefficiencies therein.

Foundations: A Brief History of Privatized Military

"…and the life of man, solitary, poor, nasty, brutish, and short."
– Thomas Hobbes

A crucial mistake often made in the study of the private sector's intrusion upon conventionally public sector space is that such an action is relatively new, or unique to the 21st century. While the corporate structure arising from the ashes of the Cold War may well represent a new codification of an age old tradition, "the contemporary organization of global violence is neither timeless nor natural."[8] Contracted troops have fought in battles across the ages, whether next to Greek hoplites in ancient times or the British Royal Navy in the Victorian age. The prevalence of these soldiers over time demonstrates that "the monopoly of the state over violence is the exception in world history, rather than the rule."[9] In ancient times, a picture emerges of well-trained and well-organized private military organizations, available on the open market to the highest bidder. The first reference to such a privatized force in operation is the mention of foreign nationals being paid to serve in the army of King Shulgi of Ur, circa 2094-2047 B.C.E. The first explicitly documented use of mercenaries, meanwhile, is the battle of Kadesh, 1294 B.C.E., where in a battle between Egyptians and Hittites, Pharoah Ramses II employed troops of hired Numidians to bolster his own forces.[10] Even the ancient Roman army, characterized by its civilian base as opposed to military specialists, won and lost battles with privately employed soldiers. The Romans relied on these hired troops in order to fill demand for specialized warfare such as mounted units and archers. The rise of the Byzantines also saw heavy use of non-state troops. The Byzantine Empire's most elite force, the Varangian Guard, was composed entirely of paid Norsemen. And their opponents on the battlefield? Mamalukes, hired to fight for the

---

[8] Thomson, *Mercenaries, Pirates, and Sovereigns: State-Building and Extraterritorial Violence in Early Modern Europe Sovereigns*, 2.
[9] Singer, *Corporate Warriors: The Rise of the Privatized Military Industry*, 19.
[10] Taulbee, *Reflections on the Mercenary Option*, 145

Saracen Empire.[11] However, the private employment of military power was not simply bound to ancient history.

The fall of the Roman Empire and the resulting slide of Europe into the Dark Ages created a vacuum of power, and an ensuing open market to fill it. The rise of feudalism and the denouement of transactions-based economies allowed room for a privatized military system to flourish and develop. While at first glance, the levee-based system might appear to detract from the need for hired forces due to the feudal ruler having on-call troops at whim, the peasants' lack of specialization in the military profession meant that leaders could take the upper hand over one another by turning to the private sector. Even more pressing, rulers were "beholden to their own lieges for troops, despite the fact that their lieges were often the very opponents that they needed to put down."[12] Paradoxically, such constraints imposed on rulers by the feudal system to control their own men drove the increasing trend towards hiring outside soldiers. As time passed, Europe began to enter the middle ages, embracing a monetized economic system that allowed for the construct of wealth accumulation and the birth of the modern contract. Instead of pushing peasants into service, feudal rulers began to exclusively pay for force. Preparing for battle "now consisted of 'commissioning'… a private individual to raise troops, clothe them, equip them, train them, and lead them."[13] In exchange, the leader of the hired battalion would receive both payment up front, as well as potentially future gains as laid out in a pre-specified contract. The lucrative nature of combat created incentives for the sphere of private soldiers to expand dramatically, laying the groundwork for the evolution of modern corporatized warfare.

While private soldiers in ancient times and the Feudal Age typically acted as free agents, roaming from contract to contract independently, the 14th century and on saw the rise of organized companies of freelance troops. The concept of the company arose as a method of

[11] Singer, *Corporate Warriors: The Rise of the Privatized Military Industry*, 22.
[12] Ibid, 22.
[13] Ibid, 23.

hedging against times of peace or poverty. Ultimately, if there was no fighting to be done or money to be earned, private soldiers found themselves lacking employment. As a result, organizations developed in a loose hierarchical structure with the aim of providing security and sustenance through numbers. These newly created free companies contributed to the collapse of the very system under which they formed: "feudal ideals of noble birth, land as the basis of authority, the church as an unassailable structure, and loyalty and personal honor as the only motives for fighting were each undermined by the fact that the dominant military actors of the period were private companies…"[14] At the same time, the first instances of private military brand manipulation also appeared. Free companies deliberately pursued a word of mouth marketing strategy, spreading rumors of their victories and skill. Such tales deterred competitors from challenging them directly while also securing the patronage of clients. As Europe entered the 17th century, free companies evolved in their degree of sophistication, molded by a new breed of military entrepreneurs. The business of war grew strong under these individuals, who "recruited and equipped military units at their own cost and then leased them out, akin to pieces of property."[15] Throughout their development, military entrepreneurs made sure to concentrate on the specialization of troops. Sophisticated training took the advantage over sheer numbers on the battlefield. With privatization at an all time high, how then did the state regain control over the legitimate use of force in the Age of Enlightenment and beyond?

The development and advancement of previously limited firearm technology changed the rules of the game. While prior combat positions "such as crossbows and the early handguns and arquebus needed years of preparation," and thus took a highly specialized soldier to operate, "an individual could become an effective musketeer after a fairly short period of training."[16] As a result, the musket became the dominant weapon of the Renaissance era. Economies of scale

---

[14] Ibid, 24.
[15] Ibid, 28.
[16] O'Connel, *Of Arms and Men: A History of War, Weapons, and Aggression*, 111.

catapulted the importance of sheer troop numbers to the front of a leader's calculations. Rulers that were able to maintain larger-standing armies of musketeers were able to more easily acquire new territories to fuel the war effort. The capture of territory and the subsequent need to maintain ever-growing armies led to the development of a system of taxation, essentially formalizing the modern definition of the state. The newly emerging states grew distrustful of privatized armies as a result of the Enlightenment, as "ideas of the social contract, the prestige of natural science, and rationalism provided a new way of thinking about the relationship of state to soldiers and citizenship to service."[17] Due to new societal standards, private military organizations fell from grace. In a trend harkening back to ancient history, citizen-armies again became the norm. The rise of nationalism and the ensuing push towards nation-state ideology forced the privatized market for violence to shift into the peripheral roles of privateers and trading companies over the next several centuries. Although the Enlightenment period saw a decline in the operations of privatized military, the realization remains that "at numerous stages in history, governments did not possess anything approaching a monopoly on force."[18] The totality of Weber's statement and the underpinnings of many theories of modern politics limit the scope of analysis to too narrow a frame. By exploring the appearances of freelance soldiers over time, it becomes clear that the phenomenon of structured privatized violence is not new. Rather, a new conception of mercenaries emerges in which today's PMFs are merely a resurgence of organized, for-profit violence as seen throughout ancient times.

---

[17] Singer, *Corporate Warriors: The Rise of the Privatized Military Industry*, 30.
[18] Ibid, 39.

Foundations: Defining "Mercenary"

"We will push those crooks, those mercenaries back into the swamp."
–Mohammed Saeed al-Sahaf, Former Iraqi Information Minister (2001-2003)

Building an operational definition to describe the current state of the private sector's involvement in global warfare requires analyzing the myriad of labels ascribed to it by academics, lawyers, and the public. Indeed, no consensus currently exists on exactly what these firms are a manifestation of. The most commonly used word to define for-profit soldiers throughout history has been "mercenary." The term exemplifies the simple meaning behind blood money: wealth in exchange for bloodshed. Companies in operation today, however, go to great strides to avoid the mercenary label, and for good reason. The term brings to mind images of unscrupulous, unprofessional violence. Consulting *Webster's Dictionary* reveals a definition of "a soldier hired into foreign service."[19] While a starting point, this definition is ultimately too vague for the purposes of pinning down the intricacies of modern privatized military operations. For example, it includes international troops serving within domestic armies, such as the French Foreign Legion. The Geneva Conventions, or the international standards for matters concerning the treatment of prisoners of war, present a different definition of mercenaries that provides a more ample foundation from which to build. Under the Conventions, troops defined as mercenaries are not entitled to the same combat immunity as public sector forces. If captured, mercenaries may be tried and punished by the domestic legal system of the country within which they are caught operating. The full definition of mercenary as laid out in the Geneva conventions, from Article 47 of Protocol 1, is as follows:

> A mercenary is any person who:
> (a) Is specially recruited locally or abroad in order to fight in an armed conflict;
> (b) Does, in fact, take a direct part in the hostilities;
> (c) Is motivated to take part in the hostilities essentially by the desire for private gain and, in fact, is promised, by or on behalf of a Party to the conflict, material

[19] Webster's Dictionary (Springfield, Mass.: C.& G. Merriam Co., 1996) available at www.dictonary.com.

> compensation substantially in excess of that promised or paid to combatants of similar ranks and functions in the armed forces of that Party;
> (d) Is neither a national of a Party to the conflict nor a resident of territory controlled by a Party to the conflict;
> (e) Is not a member of the armed forces of a Party to the conflict; and
> (f) Has not been sent by a State which is not a Party to the conflict on official duty as a member of its armed forces.[20]

While providing an entry point into discussing proper terminology, the internationally accepted definition for mercenary falls short in key areas. First and foremost, as will be argued later, many modern private military organizations do not take a "direct part in the hostilities." Moreover, what exactly constitutes such participation is currently subject to divergent interpretation. Furthermore, the international definition becomes less useful when one takes into account the amendments to the Conventions that define "mercenaries as only operating in international conflicts… when, obviously enough, hired foreigners can and do fight in internal conflicts."[21] Examining the governing characteristics of mercenaries through the lens of basic economic principles provides a useful framework from which to develop a precise working definition.

At its core, the concept of a mercenary rests on the key motivation of profit. Mercenaries are soldiers that fight for monetary gain, not out of allegiance to a government, ideology, or system of beliefs. They do not espouse the Enlightenment-period idea of the social contract, or nationalistic tendencies. They do not fight for homeland, or for political, ethical, or religious reasons. Rather, their very vocation entails a professional commitment to combat as a means of generating their next paycheck. Analyzing mercenaries at the level of the individual soldier sheds further light on the trade, post-1800s. While delegitimized, the mercenary trade simply "devolved to the individual level and went underground."[22] The main actors in the private military sector in modern times, however, are not individuals, but firms operating within the free-market economy.

---

[20] Elsea, "Private Security Contractors in Iraq and Afghanistan: Legal Issues," 7.
[21] Singer, *Corporate Warriors: The Rise of the Privatized Military Industry*, 41.
[22] Ibid, 43.

Foundations: Defining "Privatized Military Firm"

"The only essential difference between mercenaries and PMFs [is] that the states are the ones doing the hiring of the firms."
– UN Special Rapporteur, 1997

An often used term to describe private military operations in the 21st century is Privatized Military Firm, or PMF. A PMF's purpose as an organization is to generate a profit within a competitive market. In short, PMFs are "private business entities that deliver to consumers a wide spectrum of military and security services, once generally assumed to be exclusively inside the public context."[23] The resurgence of such firms over the past two decades dovetails with the end of the Soviet Union and the fall of the Iron Curtain. The accelerated formation of the privatized market can be observed immediately following the collapse of the Cold War, tracking the resulting resurgence in intra-state war. Explosive growth in the influence of international markets and the rise of post-Cold War capitalism created a unique niche for the PMF industry to fill: "the idea that the marketplace should be the solution gained not only legitimacy but, in fact, became the de facto international model for efficient government and business practices."[24] The main distinction vital to separating PMF behavior from mercenary activity is that in looking at PMFs, the unit of analysis is the corporation, not the individual. Thus, for analytical purposes, particular employees are trivial. Rather, the corporate structure within which soldiers reside becomes all the more significant.

Indeed, the firms participating in the open market for force are distinguished across a host of variables ranging from financial details like market capitalization, P/E ratios and stock prices, to their number of employees, caliber of personnel, access to weaponry and intelligence, geographic location and operational theater. While the internal fragmentation of the PMF industry has gone largely unstudied in academic literature, in *Corporate Warriors*, Peter W.

[23] Ibid, 8.
[24] Ibid, 66.

Singer formulates a typology that filters firms into subsets and attempts to integrate both military and economic fundamentals. Singer adapts a commonly used metaphor from the military complex, or the "tip of the spear" typology. Such an approach allows for differentiation of firms based upon their proximity to actual front line combat (in this case, the tip of the spear). A firm that serves in a logistical support role would thus be considered as moving away from the spear's point. From a military perspective, Singer classifies three types of firms, as "those that operate within the general theater, those in the theater of war, and those in the actual area of operations, that is, the tactical battlefield."[25] Drawing on proximity to conflict as a deciding characteristic, Singer defines the three broad subsectors of the PMF industry: Military Provider Firms, Military Consultant Firms, and Military Support Firms. First, Military Provider Firms are generally defined by their focus on the tactical environment, serving on the front-lines of an active conflict. Second, Military Consultant Firms are characterized as companies that "provide advisory and training services integral to the operation and restructuring of a client's armed forces."[26] Third, Military Support Firms are firms that provide supplementary military services, such as logistics, intelligence, supply, technical support, and transportation.

While Singer's delineation of sectors for study is sound, his typology is not without fault. By focusing on the firm as the unit of observation, Singer makes a crucial mistake in how best to approach individual cases of PMF activity. Deborah Avant, in *The Market for Force,* rectifies this error by shifting the unit of analysis to each individual contract signed between governments and firms. Avant changes the lens of focus in order to capture an important reality: firms can fluidly adapt to different types of contracts due to their unique corporate structure. Avant notes that "given the way service firms fill contracts from databases and advertising, it is easy for them

---

[25] Ibid, 91.
[26] Ibid, 95.

to move from one service type to another."[27] Avant further broadens Singer's initial three categories into four distinct subsections: Armed Operational Support, Unarmed Operational Support on the Battlefield, Unarmed Military Advice and Training, and Logistical Support. Due to the inherent similarities between the first two of the four categories as a result of their combat-proximity, maintaining Singer's three subdivisions while adapting Avant's unit of analysis generates a more cohesive narrative in which to examine the PMF industry. With these adaptations to Singer's original metaphor, delving into the three subsets of PMF contracts becomes a simpler affair. In the following sections, Military Provider Contracts, Military Consultant Contracts, and Military Support Contracts will all undergo review.

Military Provider Contracts

Military Provider Contracts rest at the "tip of the spear," as they occur within the tactical area of operation. Either by engaging in front line fighting or by taking direct command and control of field units, these contracts are the most intimate in the PMF industry. Clients that request such direct action "tend to be those with comparatively low military capability faced with immediate, high threat situations."[28] These contracts are generally, one of two types: either full unit packages or "force multipliers" specializing in a particular area. Full unit contracts are when the firm "is not supplementing the client's pre-existing forces, but rather providing an alternative or even replacement to them."[29] A contract of Executive Outcomes (EO), a PMF notorious for operations in Sierra Leone during the 1990's, serves as an excellent example of the unit package. In Sierra Leone, EO deployed a full battalion in order to beat back the Revolutionary United Front. The EO ground troops were fully supported by EO artillery, EO helicopters, EO assault and transport aircraft, and EO non-combat specialists.[30] On the other hand "force multiplier"

[27] Avant, *The Market for Force: The Consequences of Privatizing Security*, 17.
[28] Singer, *Corporate Warriors: The Rise of the Privatized Military Industry*, 93.
[29] Ibid, 94.
[30] Harding, "The Mercenary Business: 'Executive Outcomes'", 96.

contracts are aimed at allowing states to shore up areas where they might not hold a comparative advantage. This type of contract distinguishes itself from the full unit package in that here, private and public sector forces work together in tandem, attempting to achieve greater results on the battlefield. Here, even clients with relatively robust military capabilities might find themselves an employer, in order to fulfill a previously weak combat domain such as air support. Taken together, both types of Military Provider Contracts make up the "tip of the spear."

Military Consulting Contracts

Military Consulting Contracts are those that take place in the military theater of operations. In essence, these contracts operate at all levels with the client except directly on the field of battle. Indeed, "while [PMF] presence can reshape the strategic and tactical environment through the re-engineering of a local force, it is the client who bears the final risks on the battlefield," in a key degree of separation from Military Provider Contracts.[31] An example of such a contract would be the ongoing business arrangement between Military Professional Resources Incorporated and the United States Government. MPRI as a firm is well known for its comprehensive strategic brain-trust, used to provide the U.S. military with expert advice: "the typical consultant contract specifies a situation facing the client… the firm then analyzes what might be done to solve the predicament."[32] The agencies engaging in Military Consulting Contracts have needs that are not quite as pressing as those in the Military Provider Contract camp, often resulting in a longer-term relationship between client and contractor.

---

[31] Singer, *Corporate Warriors: The Rise of the Privatized Military Industry*, 95.
[32] Ibid, 96.

Military Support Contracts

The final portion left in the "tip of the spear" metaphor is at the farthest proximity from the point, here represented by Military Support Contracts. While such contracts operate within the theater of war, their services are indirectly associated with battle. Support typically takes the form of anything that fits under the broad category of non-lethal aid and assistance. From serving meals to transporting supplies, these contracts do not place private military troops on the battlefield. The firms that provide these services often find themselves left out of analyses pertaining to the privatized military industry, due to their resemblance to mere support-staff. Leaving these contracts out of the analysis as often occurs is a grave mistake, "as with their equivalent support units in the military, although they do not participate in the execution or planning of combat action, they fill functional needs critical to overall combat operations."[33] The firm KBR, Inc. commonly takes these types of contracts, assisting the U.S. army abroad by taking care of traditional logistical support functions and routine maintenance of base operations including food-preparation and facilities upkeep.[34]

Foundations: Looking Forward

Through their employment in conflicts across the globe, PMFs have evolved over history as a unique, profit-driven intersection between the public and private sectors. The facts demonstrate that for-profit military employment is not a new phenomenon, but rather a reorganization of previously fragmented activity. Having classified the varying types of privatized actions into distinct sectors using an adaptive typology created by combining both Singer's "tip of the spear" metaphor with Avant's unit of analysis, I now seek to address the extent to which considerations of competition play a role in government contracting.

[33] Ibid, 97.
[34] Weinberger, "Windfalls of war: KBR, the government's concierge,'" available at http://www.iwatchnews.org/2011/08/30/5990/windfalls-war-kbr-governments-concierge.

The Contract: An Overview

"National Security is not a business decision."
- Commission on Wartime Contracting in Iraq and Afghanistan (2011)

Contracts, or legally binding agreements between two or more parties,[35] serve as the legal underpinnings of transactions in modern society. From simple exchanges of goods for services, to a more complex monetization of future cash flows, contractual obligations allow both creditors and debtors a degree of financial flexibility. Despite the dynamism they afford, contracts pose a variety of problems as a result of their very construction. Imperfect information regarding an opposite party's goals or behavior underlies nearly all such interactions. How can you be sure that a bank is charging you a fair rate on your mortgage? Are the services you are purchasing from a lawyer, handyman, or accountant being rendered faithfully and accurately to your specifications? Notably, are you being charged a fair price? These questions dominate the day to day usage of contracts in society. When applied to the realm of national security, the stakes are even higher. Here, contracts can total billions of dollars as opposed to millions, and success can be measured in lives saved as opposed to a fee paid.

Contracting between PMFs and governments introduces a hitch into an otherwise benign legal obligation. An undeniable tension exists between a state's desire for services paramount to national security and a firm's profit-oriented motivations, allowing the possibility of both battlefield consequences and varying margin calls. In an attempt to cut the cost of building a bunker for example, a firm free from proper oversight might utilize a lower grade of concrete in laying the building's foundation. A hired PMF employee as opposed to a volunteer soldier may be less willing to put their life on the line in pursuit of mission objectives. These choices, made at the periphery of contracts, exemplify the inherent conflict of interest between government and PMF. Proponents of privatized deployment cite Adam Smith's "invisible hand" as the ultimate

---

[35] Webster's Dictionary (Springfield, Mass.: C. & G. Merriam Co., 1996) available at www.dictonary.com.

arbiter of efficiency, reconciling supply and demand constraints in order to arrive at an optimal arrangement. Theories governing free-market operations are not without merit, though they rest heavily on the key tenet of ample competition. These assumptions deteriorate in the realm of privatized military contract auctions, a realm where the term "free-market" can be used only in the loosest capacity.

The rules and regulations governing how contracts are awarded by U.S. agencies provide a proper foundation for addressing several inefficiencies inherent in PMF outsourcing. First and foremost, as outlined in various government documents including the FAIR Act: 31 U.S.C. 501, and Circular No. A-76, contracting to commercial enterprises can only occur if the services rendered are deemed to not be "inherently governmental" in nature. U.S.C. 501 in particular defines "inherently governmental functions" as the interpretation and execution of the laws of the United States so as:

> (i) to bind the United States to take or not to take some action by contract, policy, regulation, authorization, order, or otherwise;
> (ii) to determine, protect, and advance United States economic, political, territorial, property, or other interests by military or diplomatic action, civil or criminal judicial proceedings, contract management, or otherwise;
> (iii) to significantly affect the life, liberty, or property of private persons;
> (iv) to commission, appoint, direct, or control officers or employees of the United States; or
> (v) to exert ultimate control over the acquisition, use, or disposition of the property, real or personal, tangible or intangible, of the United States, including the collection, control, or disbursement of appropriated and other Federal funds.

The law cites exceptions to the above definition as functions related to:

> (i) gathering information for or providing advice, opinions, recommendations, or ideas to Federal Government officials; or
> (ii) any function that is primarily ministerial and internal in nature (such as building security, mail operations, operation of cafeterias, housekeeping, facilities operations and maintenance, warehouse operations, motor vehicle fleet management operations, or other routine electrical or mechanical services).[36]

---

[36] FAIR Act, USC 501, 7-8.

The definition of “inherently governmental functions” has been used as a rallying point for outsourcing security, with a “because we can, we should” justification, under the assumption that a free market will yield more cost-effective results than nationalized security. The recent bipartisan Commission on Wartime Contracting in Iraq and Afghanistan (CWC) argued that the typology was inadequate, failing to “enable officials to decide whether contracting for non-governmental functions is *appropriate* or prudent in contingency operations.”[37] The CWC goes on to recommend to Congress that “systematic consideration of operational, political, and financial risks must be a factor in judging appropriateness, as opposed to assuming that any task not deemed inherently governmental is automatically suitable for performance by contract.”[38] Indeed, the financial risks associated with privatizing security depend in part on the nature of the contract awarded.

There exist a multitude of different government contract awards, outlined in the Federal Acquisition Regulation issued March 2005 jointly by the General Services Administration, the Department of Defense, and the National Aeronautics and Space Administration. The U.S. Government groups obligations into two broad fields: fixed-price contracts and cost-reimbursement contracts. These agreements cover the spectrum of arrangements by taking into account two key variables:

(1) The degree and timing of the responsibility assumed by the contractor for the costs of performance; and
(2) The amount and nature of the profit incentive offered to the contractor for achieving or exceeding specified standards or goals.[39]

Fixed-price contracts are the simpler of the two, wherein either a ceiling price, target price, or both are negotiated in advance of execution. In general, these contracts put the majority of the risk on the PMF, making them fully responsible for covering all costs in advance. Further

[37] Commission on Wartime Contracting in Iraq and Afghanistan, “Transforming Wartime Contracting: Controlling costs, reducing risks,” 3.
[38] Ibid, 3.
[39] Federal Acquisition Regulation, 403.

permutations of this contract type allow for the inclusion of an award-upon-completion fee, or even economic price adjustments to account for the uncertainty of long-term market or labor fluctuations. Fixed-price contracts allow for standard bidding auctions to occur, where the lowest-cost bidder wins the obligation.[40] Such contracts, when opened up to market competition, result in the best “bang-for-buck” deals for governments and their constituencies. While not without their faults, fixed-price contracts make up the majority of the U.S. Government’s obligations in the privatized security sector, totaling 93.28% of actions in Iraq, 95.40% of actions in Afghanistan, and 89.92% of actions in the surrounding theater.[41]

On the other end of the spectrum, cost-reimbursement contracts allow for maximum flexibility on the part of the provider, allowing them to work within a ceiling price with reimbursements on the fly. These types of contracts can also be modified through the addition of award-upon-completion fees, and in some cases, variable cost-ceilings. The Federal Acquisition Regulation released March 2005 explicitly states that cost-reimbursement contracts may only be used when circumstance does not allow for the implementation of a fixed-cost contract, or when uncertainties do not allow costs to be accurately estimated.[42] Such contracts are inherently more open to abuse by the private sector than fixed-cost contracts, due to their flexible nature. Cost-reimbursement contracts make up a minority of the U.S. government’s obligations, totaling 3.20% of actions in Iraq, 1.78% of actions in Afghanistan, and 1.92% of actions in the surrounding theater.[43] Wherever they fall on the spectrum of fixed-cost to cost-reimbursement, whatever legal implications might govern them, one thing is clear: not all contracts are created equal.

---

[40] Ibid.
[41] Commission on Wartime Contracting in Iraq and Afghanistan, “Transforming Wartime Contracting: Controlling costs, reducing risks,” 220.
[42] Federal Acquisition Regulation, 409.
[43] Ibid.

The Contract: Reality

"We're simply not going to go to war without contractors."
– Dr. Ashton B. Carter, Under Secretary of Defense for Acquisition, Technology, and Logistics, March 28, 2011

Privatized Military Firms, from the "tip of the spear" on down, have reaped a windfall over the past decade as the U.S. military has operated in a variety of theaters. Publicly available data shows that between 2002 and 2010, a total of roughly $2.67 trillion dollars were allocated by the Department of Defense to military contractors, or roughly $297 billion a year.[44] The microcosms of the wars in Iraq and Afghanistan, as detailed in the CWC report, allow for scrutiny of the theoretical issues posed by PMFs and serve as an indicator of the larger picture. Between 2002 and 2011, publicly disclosed contractual obligations by the U.S. government towards these contingences totaled approximately $192.5 billion dollars, spent on firms providing services on the ground.[45] A key point to take into account is that the data does not include contracts involving domestic production, "for example, mine-resistant, ambush-protected vehicles and tethered-aerostat radar systems for surveillance that are produced in the U.S. but used in Iraq and/or Afghanistan [are not] included."[46] In the end, these contracts all relate to physical actions performed in foreign arenas. A breakdown of these publicly available cash flows shows that the majority of taxpayer dollars go towards Military Consulting Contracts and Military Support contracts, with the top services in demand ranging from logistics support services to facilities operations.

---

[44] Weinberger, "Windfalls of war: Taxpayers get hammered by Pentagon attempts to 'one-stop-shop,'" available at http://www.iwatchnews.org/2011/09/01/6017/windfalls-war-taxpayers-get-hammered-pentagon-attempts-one-stop-shop.
[45] Commission on Wartime Contracting in Iraq and Afghanistan, "Transforming Wartime Contracting: Controlling costs, reducing risks," 225.
[46] Ibid, 208.

Table 1. Top 10 Contractor Provided Services[47]

Service description	Total (in billions)
Logistics support services	$46.50
Construction of miscellaneous buildings	10.5
Technical assistance	5.5
Other professional services	5.2
Guard services	3.8
Maintenance and repair, alterations of office buildings	3.5
Construction of office buildings	2.9
Lease-rent or restoration of real property	2.8
Facilities operations support services	2.5
Program management/support services	2.4
Total obligations for top 10 services	**$85.60**
Top 10 as percentage of total services obligations ($192.5)	**44%**

The CWC's data presents an incomplete and misleading picture. With the exception of "Guard Services," the lack of Military Provider Contracts in Table 1 is notable. Military Provider Contracts, being at the very "tip of the spear" in combat-proximity are often sensitive in subject and discrete in execution. Many of these contracts fail to appear in official reports due to their unofficial designation as "black" contracts, or obligations of a clandestine nature. The infamous PMF Blackwater began its rise with one such contract, specified by the Department of Defense as "urgent and compelling." Such a designation "[eliminated] all the competitive bidding requirements" resulting in "Blackwater [obtaining] a $5.4-million six-month contract."[48] While $5.4 million might seem paltry compared to the figures in Table 1, it takes on greater significance when placed in context. In 2006, nearing the height of Blackwater's operations, then president Gary Jackson admitted that "Blackwater [had] settled into a pattern of doing about 15 percent "black" contracts," the value of which would add up to nearly $100 million in annual revenue.[49]

Using Jackson's comment as a starting point, if a single firm operated "black" contracts on such a scale, hypothetically, the revenue generated over the time-span considered in Table 1

[47] Ibid, 23.
[48] Pelton, *Licensed to Kill: Hired Guns in the War on Terror*, 37.
[49] Ibid, 41.

would be roughly equivalent to $900 million. If even a nominal number of companies operated to this degree, these clandestine contracts would certainly break into the Top 10 Contractor Provided Services table. When it comes to the facts and figures, it bears keeping in mind the white-washed nature of the data. While the publicly available information certainly provides a starting point for investigation, the potential for unexplained expenses must be carefully considered. Issues of concealed, or purposefully obfuscated, data are important to consider when examining the privatized military industry. While outside the scope of my research, it is nevertheless a concern worth noting.

Still, looking at the dollar values of contractual obligations by firm, as presented by the CWC, provides an informative glimpse of where U.S. tax dollars are flowing.

Table 2. Top Military Contractors

Contractor	Obligations (in billions)
Kellogg Brown & Root	$40.8
"Miscellaneous Foreign Contractors"	38.5
Agility	9.0
DynCorp	7.4
Kuwait Petroleum Corporation	5.0
Fluor Intercontinental, Inc.	5.0
The Bahrain Petroleum Company	5.0
Combat Support Associates	3.6
ITT Federal Services International	3.4
The Louis Berger Group Inc.	2.3
International Oil Trading Company, LLC	2.1
Readiness Management Support, LC	2.0
L-3 Communications	1.7
Red Star Enterprises LTD	1.7
IAP Worldwide Services, Inc.	1.5
Environmental Chemical Corporation	1.5
Perini Corporation	1.5
Blackwater Lodge and Training Center, Inc.	1.5
Contrack International Inc.	1.4
Triple Canopy Inc.	1.2
DAI/Nathan Group LLC	1.1
Washington Group International	1.1
BearingPoint, LLC	1.0
Total	**$139.1**

The report notes that the “Miscellaneous Foreign Contractors” category represents “an unknown number of individual companies” and is “often used for the purpose of obscuring the identification of the actual contractor.”[50] Discarding the “miscellaneous” category reveals that roughly 52% of all contract dollars went to just 22 firms, out of the known 7,000 in operation in the relevant theaters.[51] When it comes to contractual inefficiencies, this concentration of obligations is just the beginning.

The Contract: Inefficiencies

“…and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention.”
– Adam Smith, Economist

The assumption of fair and robust competition underlies any explanation of a free and open economic marketplace. Competitive practices breed innovation, lower costs, and force industries to continually produce products of increasing utility to consumers. The privatized military industry is no exception to the benefits afforded by the capitalist system. In an efficiently functioning marketplace, where each action goes up to open bid, the government theoretically will arrive at contractual obligations that maximize taxpayer dollars. Still, “while a company’s self-interest in winning and retaining government contracts could prompt it to focus on efficiency, short-term pressures or a profit-maximization drive may lead it to cut corners.”[52] Although it may appear that the privatized military sector attempts to capitalize on the virtues of the free market, the industry’s evolution over the past decade demonstrates that significant room remains to address inefficiencies bred by government strategic direction and the inherent conflict of interest between PMFs and state authorities.

[50] Ibid, 209.
[51] Ibid, 209.
[52] Ibid, 33.

While the government is indeed a "customer" in accessing the market for privatized security, it is worth noting that as a client they face different pressures than the role traditionally implies. Government agencies, for example, may make a strategic choice to enter into an arrangement which is *not* economically efficient, for the sake of expediency. The existence of this choice is codified in the Federal Acquisition Regulation issued March 2005, stating that

> when the agency's need for the supplies or services is of such an unusual and compelling urgency that the government would be seriously injured unless the agency is permitted to limit the number of sources from which it solicits bids or proposals, full and open competition need not be provided for.[53]

Asides from expediency, there are other incentives for governmental agencies to engage in the outsourcing of military services. First, without the compelling force of competition created by the private sector, internal government-run suppliers would eventually stagnate in terms of innovation and development, leading to rising in-house costs of production. Second, those in command of the U.S. hierarchy may choose to privatize military functions in order to alleviate pressure stemming from conflict between internal subdivisions engaging in rent-seeking behavior, such as "corruption" which can "reduce growth by lowering overall incentives and opportunities for production and investment."[54] For instance, competition between individual agencies for budget distribution could result in false depictions of actual need, resulting in a misallocation of resources thus depriving the government of consumer surplus. Third, privatization of military services would allow the government to focus on its other core responsibilities without involving itself in matters that the private sector could potentially address in a more efficient and expedient manner. It is important to keep in mind these incentives on the part of government agencies to privatize when analyzing the extent to which contracting appears to be, on the surface at least, rife with inefficiency.

---

[53] Federal Acquisition Regulation, 168.
[54] Chakraborty and Dabla-Norris, "Rent Seeking," 1.

No-bid Contracts

Perhaps one of the most egregious violations of free-market thought, no-bid, or sole-source contracts are actions awarded by the government without the open solicitation of competing bids. Such grants remove the main benefits of privatization, namely, the drive to provide higher quality products at a lower cost. The same rationalization that allows an agency to engage in "black" contracts holds true here: if a project is deemed to be urgent and compelling, the rules governing competitiveness can be bypassed in the name of national security. An example of such an appropriation of funds would be the recent sole-source contract granted by The Missile Defense Agency to Raytheon Co., Integrated Defense Systems, on December 30, 2011, not to exceed $363.9 million. The obligation specifies "an undefinitized contract action to provide two AN/TPY-2 radars."[55] Without soliciting competitive bidders for the auction, the government has no checks in place to control for a firm's profit-maximizing strategy. Furthermore, in addition to costs, the government fails to capitalize on the benefits to quality that competition produces. If a company operates in a vacuum, there exists no incentive to create superior products. Competitive pressure, by its very nature, "is defined in terms of its effect on a firm's incentives to undertake product and process innovations."[56] These innovations in turn result in "a new product to introduce into the market… the incentive" for which "is determined by the profit level associated with the new product."[57] Entering into no-bid contracts, therefore, shields PMFs from the pressure to innovate and provide better goods and services.

Non-competitively Extended Contracts

In a similar vein to sole-source contracts, non-competitively extended contracts allow companies to operate under extension of contract deadlines, and increases to contract ceilings,

[55] U.S. Department of Defense, "No. 1052-11," available at http://www.defense.gov/contracts/contract.aspx?contractid=4695.
[56] Boone, "The Effects on Investments in Product and Process Innovation," 552.
[57] Ibid.

without having to re-compete for the action. Perhaps one of the most well known cases of wartime military contracting is the non-competitively extended contract to Kellogg Brown & Root (KBR), totaling approximately $40.8 billion as of 2011 as seen in Table 1. The action, known as LOGCAP (Logistics Civil Augmentation Program) III, was originally awarded through a competitive process in 2001. A LOGCAP obligation essentially serves as an umbrella contract with a cost-reimbursement structure, allowing the government access to unspecified goods and services over a set time-duration. The military was under great pressure when U.S. forces entered Afghanistan in 2001, with capacity stretched to the limit. The LOGCAP III contract essentially made KBR the official miscellaneous war-time provider of the U.S., providing services from "water systems, heaters, tents, and dining facilities," to "electricians, cooks, and cleaners."[58]

The flexibility of the contract came at great cost to the U.S., in the form of inefficiency as a result of non-competitive extension. In testimony before the Senate Democratic Policy Committee in June 27, 2005, the then United States Army Corps of Engineers senior procurement executive, Bunnatine Greenhouse, testified that "the fact that [the LOGCAP III extension] was a no-bid, sole source contract meant that the government was placing KBR in the position of being able to define what the reasonable costs would be to execute… and then charging the government what it defined as being reasonable."[59] The extent to which contracts are non-competitively extended remains unknown, perhaps even misreported. A member of the Wartime Contracting Commission, Charles Tiefer, stated that extended contracts "were counted as 'competitive' in federal data figures,"[60] due to the initial nature of the obligation. The level of

[58] Weinberger, "Windfalls of war: KBR, the government's concierge,'" available at http://www.iwatchnews.org/2011/08/30/5990/windfalls-war-kbr-governments-concierge.
[59] Senate Democratic Policy Committee Hearing, "An Oversight Hearing on Waste, Fraud, and Abuse in U.S. Government contracting in Iraq," available at http://democrats.oversight.house.gov/images/stories/documents/20050627170012-64293.pdf.
[60] Weinberger, "Windfalls of war: KBR, the government's concierge,'" available at http://www.iwatchnews.org/2011/08/30/5990/windfalls-war-kbr-governments-concierge.

competition, so vital to gaining the benefits of privatization, often finds itself subjugated to the demand for urgent and compelling assistance.

Other Complications from Contract Structure

As previously discussed, the type of contract awarded greatly affects the government's benefit per dollar in terms of output. While cost-reimbursement contracts provide flexibility, because the government doesn't need to know ahead of time exactly what services will be required, they allow ample room for profit-maximizing firm mischief. If, for example, the contract is determined by time duration, "the firm will bill up to the maximum allowable period."[61] On the other hand, if the contract value is determined by the number of boots required on the ground, "the firm will likely hire as many billable employees as possible or pad their numbers with 'shadow' employees."[62] These inefficiencies accumulate at a significant cost to the U.S. Government. Returning to the CWC's report on contractor obligations for the contingencies in Iraq and Afghanistan allows a glimpse at the disproportionate allocation of resources to different contract-types. Looking at Iraq as an example, approximately 93% of actions were awarded through a fixed-cost structure, however, these awards represented only 46% of the actual influx of cash into the region. On the other hand, cost-reimbursement contracts represented roughly 3% of the actions, with a monetary value of 46% of the dollars allocated. The remaining 4% of contracts fit somewhere in-between, on the scale from fixed-cost to cost-reimbursement.[63] The concentration of dollars into these less efficient contract structures is a worrisome trend, even noted in a memorandum from the desk of President Obama on March 4, 2009: "Between fiscal years 2000 and 2008… dollars obligated under cost-reimbursement

---

[61] Singer, Corporate *Warriors: The Rise of the Privatized Military Industry*, 156.
[62] Ibid.
[63] Commission on Wartime Contracting in Iraq and Afghanistan, 220.

contracts nearly doubled, from $71 billion in 2000 to $135 billion in 2008."[64] When confronting inefficiencies in the privatized military sector, the very makeup of contracts must undergo scrutiny.

A Competitive Inefficiency: Rational Bidding Strategy

Setting aside no-bid contracts and non-competitive extended contracts, let us turn to an inefficiency inherent even in a fair and open auction bidding process. The following model (Model 1) theoretically demonstrates how firms would interact in a contract auction to arrive at an outcome that is ultimately not economically efficient, from the perspective of the contracting government agency. The model first builds in less-than-ideal competition by assuming that only two firms are engaged in the auction, before expanding the results to a multi-firm general case. In the model, each bidding firm has knowledge of its own cost of performing the contract in question. On the other hand, each firm does *not* have knowledge of the opposing firm's cost of executing the obligation. What each firm knows, however, is the distribution of potential costs facing its opposition. Because a firm possesses such information, it can rationally calculate the probability that its bid will be lower than its rival's bid, ensuring the obligation award.

[64] Obama, Memorandum for the Heads of Executive Departments and Agencies, available at http://www.whitehouse.gov/the_press_office/Memorandum-for-the-Heads-of-Executive-Departments-and-Agencies-Subject-Government/.

Model 1. Rational Bidding Strategy

Variables:
B = Firm's Bid
Z = Firm's Cost of Contract
$\overline{Z}$ = Maximum Potential Cost of Contract,
π = Firm Profit

$$\text{Firm's Expected Profit Function: } E(\pi_1) = (B_1 - Z_1)PROB(B_1 < B_2)$$

$$\text{Nash Equilibrium Bidding Strategy: } B_i = \frac{\overline{Z} + Z_i}{2}$$

Hypothesis: The competition will follow a Nash Equilibrium Bidding Strategy

$$\text{Competition's Bidding Strategy: } B_2 = \frac{\overline{Z} + Z_2}{2}$$

$$E(\pi_1) = (B_1 - Z_1)PROB\left(B_1 < \frac{\overline{Z} + Z_2}{2}\right)$$

$$E(\pi_1) = (B_1 - Z_1)PROB\left(2B_1 - \overline{Z} < Z_2\right)$$

Assuming a uniform distribution of probabilities *F*, from 0 to $\overline{Z}$:

$$E(\pi_1) = (B_1 - Z_1)\left(1 - F\left[2B_1 - \overline{Z}\right]\right)$$

$$E(\pi_1) = (B_1 - Z_1)\left(1 - \frac{2B_1 - \overline{Z}}{\overline{Z}}\right)$$

Maximizing firm's expected profit with respect to firm's bid:

$$\frac{\partial E(\pi_1)}{\partial B_1} = -\frac{2}{\overline{Z}}(B_1 - Z_1) + 1 - \frac{2B_1 - \overline{Z}}{\overline{Z}} - \frac{2B_1 - 2Z_1}{\overline{Z}} + 2 - \frac{2B_1}{\overline{Z}} = 0$$

$$4B_1 = 2\overline{Z} + 2Z_1$$

$$B_1 = \frac{\overline{Z} + Z_1}{2}$$

$$B_1 = Z_1 + \frac{\overline{Z} - Z_1}{2}$$

In a competitive bidding process with n bidders, as opposed to two, bidding strategy becomes:

$$B_1 = Z_1 + \frac{\overline{Z} - Z_1}{n}$$

As demonstrated in the model, the bidding process requires striking a delicate balance between a lower bid, thus ensuring that the contract is secured, and the desire to capture as much profit as possible. The optimal bidding strategy arrived at in Model 1 captures these opposing incentives, with the optimal bid falling in price as more firms compete for the contract. With just two companies, the chance of one firm under-bidding the other with just a minor deviation in price is high. Alternatively, the chance of an incremental shift in price making a difference with greater competition in the market is quite low. Firms in a competitive bidding market would subsequently have to lower their bids substantially, in order to increase their odds of winning the contract. Thus, in scenarios with a relatively low number of bidders, the inefficiency is comparatively larger than if more firms had bid for the same contract. Model 1 demonstrates that increased competition is the only method of attacking the inherent inefficiency generated by a PMF's rational bidding strategy.

The Contract: Looking Forward

Having examined the Privatized Military Industry by using the contract as the unit of analysis, several economic inefficiencies have become apparent. By striving to push the industry towards free and open competition, the true benefits of marketplace pressures can ultimately see realization. What follows is an examination of the optionality afforded to PMFs by their unique choice of corporate structure, with an emphasis on firm behavior and decision-making processes.

Corporate Structure: The Foundation of Privatized Military Firms

"…differences between firms arise due to 'imperfections' in the competitive mechanism…"
-Mariana Mazzucato, Ecomonist

The privatized military industry has often been demonized for its ostensibly homogenous corporate structure. Outdated conceptions of the industry conjure up an image of "basically… a retired military guy sitting in a spare bedroom with a fax machine and a Rolodex."[65] In reality, there exists far greater diversity of corporate structure across PMFs: from more traditional companies that grow through acquisition in order to take advantage of economies of scale, to companies that are publicly traded on the New York Stock Exchange, to a wave of privatized security companies that operate in an asset-light fashion. The companies that are indeed capital-light focus their capabilities in an area where they excel at value creation: "that typically means owning (raising capital and shaping portfolios of investments), managing (deploying assets optimally into the marketplace), *or* operating physical assets—not all three, as is the case in most vertically integrated companies."[66] The differentiation between firms allows for the creation of unique products and services across the spectrum of contract types, ranging from Military Provider Contracts to Military Support Contracts. The industry serves as a prime example of a relatively new phenomenon in the business world: a shift that began in the 1990s away from the traditionally vertically integrated corporation towards a fluid, project-oriented approach to transactions.[67] The strategic approach to corporate structure taken by the majority of PMFs raises a number of questions, particularly concerning the connections between different segments of the supply chain.

---

[65] Silverstein, "Privatizing War: How Affairs of State are Outsources to Corporations beyond Public Control," *The Nation*, 11.
[66] Maly and Palter, "Restating the value of capital light," 5.
[67] Ibid, 1,

Upstream-Downstream Relationships

In 2008, *Bloomberg Businessweek* reported that they expected there to be "a rapid increase in the number of people who work in cyclical or project-based arrangements- many with no fixed affiliation to one corporation. It's even possible that project-based work will become the norm in several decades- with most workers operating as what some have called 'intellectual mercenaries' assembled by project, as needed."[68] Such a project-oriented approach to conducting business has been long practiced in the construction sector and in the production of films in Hollywood. In a competitive market, the looser structure allows firms to produce differentiated products while minimizing costs accrued due to the non-use of capital or labor at any given point in time. Take the movie industry for example. Hired by a studio, an actor, a director, a producer, and an operations crew come together. They spend several months fulfilling their contract to their employer. Once the film has been adequately shot and edited to contract specifications, the individuals involved in the production disband and look for more work, perhaps even at a competitor of their most recent employer.

Such a project oriented approach inherently assumes a vertical chain of production, leading from the consumer, who pays to watch cinema, to the film studio, which creates movies by putting together a variety of specialized inputs, to the individuals of the film crew, who serve as these very inputs, in addition to technical equipment. When it comes to vertical chains, "the convention is to label the items farthest from the final consumer of the product as upstream and those closest to the consumer as downstream."[69] Upstream-downstream relationships have played a crucial role in the rise and evolution of the privatized military complex. The industry has seized upon a project oriented approach with zeal. Applying the same framework as Hollywood, but to the arena of contracting, reveals a familiar picture.

---

[68] Erickson, "The Project-Based Workforce,'" available at http://www.businessweek.com/managing/content/jan2008/ca20080131_957836.htm.
[69] Pepall, Richards, Norman, *Contemporary Industrial Organization: A Quantitative Approach*, 325.

The consumers of PMF projects are governments. A PMF, as the downstream firm in this case, fulfills a contract by combining a set of specialized inputs, obtained from upstream suppliers. A set of such inputs could be as benign as the concrete required to lay the foundation for a new bunker in the field, in addition to the engineers and construction workers required to build it, such as in the case of a Military Support Contract.[70] An alternative set of inputs, for a Military Provider Contract, could look drastically different, including a mix of assault rifles, grenades, attack helicopters, mortars, and the specialized manpower required to operate such equipment.[71] The upstream-downstream relationships present in the privatized military sector share a common set of traits:

> First, the upstream suppliers, who come together to work on a project, supply specialized services that are typically *complementary* to each other. Secondly, any one upstream supplier could be working on *more than one* project at the same time. Thirdly, when these specialized input services are combined, they produce something that is itself *differentiated*.[72]

The relationship between upstream suppliers and downstream providers ultimately results in an economic inefficiency, here, a markup in on the price of sub-contracted inputs, the cost of which is passed through to the consumer, or the taxpayers in this case. The inefficiency comes about as the result of a pricing-coordination failure: without any mechanism to synchronize horizontally across firms with monopolistic power in their respective market-sectors, downstream firms are essentially held hostage to the whims of those above them in the supply chain. I have developed a model (Model 2) demonstrating the markup generated by this upstream-downstream coordination failure.

Model 2 is designed as a simplification of the market for sub-contracted, specialized inputs. The model is based on a Constant Elasticity of Substitution architecture, wherein the

---

[70] Weinberger, "Windfalls of war: KBR, the government's concierge,'" available at http://www.iwatchnews.org/2011/08/30/5990/windfalls-war-kbr-governments-concierge.
[71] Singer, *Corporate Warriors: The Rise of the Privatized Military Industry*, 271.
[72] Pepall, Norman, "Product Differentiation and Upstream-Downstream Relations," 202.

specified production technology, in this case the output function for a downstream supplier, changes at a constant rate due to incremental shifts in the percentages of specialized inputs. Here, the government solicits bids from PMFs, who participate in the auction process as described previously in Model 1, knowing that they will have to access the market for specialized inputs at a later point. Such a chain of events results in an inefficiency commonly referred to as the problem of "double marginalization." Take the steel industry for example. An ingot of steel is produced by combining a unit of iron with a unit of carbon. If both the markets for iron and carbon are competitive, then the price of a steel ingot will also be competitive, equal to the marginal cost of purchasing a unit of iron, a unit of carbon, and the necessary cost to process them. If the markets for both iron and carbon are not competitive, however, but rather, monopolistic in nature, then the price of a steel ingot will reflect the monopoly premium granted to both the iron and carbon producers in its cost to the consumer. The monopolized markup is passed from the upstream supplier to the downstream producer, and then on to the consumer.

Similar to Model 1, here I limit the number of bidders to just two. Notably, the producers of specialized inputs, as in the above example, possess monopoly power within their particular sectors of production.

Model 2: Upstream-Downstream Markup

Variables:
Q = Downstream Supplier's Output
L_i = Specialized Labor Inputs, N = Number of Specialized Labor Inputs,
σ = Elasticity of Substitution for Specialized Labor Inputs,
W_i = Cost of Specialized Labor Inputs (Wage Rate),
$\overline{W}$ = Geometric Mean of Weighted Costs of Specialized Labor Inputs
π = Upstream Supplier Firm Profit
r = Standardized Opportunity Cost of Specialized Labor Inputs

$$\text{Output Function for Downstream Supplier: } Q = \left(\sum_{i=1}^{N} L_i^{\frac{\sigma-1}{\sigma}} \right)^{\frac{\sigma}{\sigma-1}} \text{ , } \sigma > 1$$

$$\text{Demand Function for Specialized Labor: } L_i = \left(\frac{W_i}{\overline{\overline{W}}} \right)^{-\sigma} N^{\frac{\sigma}{1-\sigma}} Q \text{ , } \sigma > 1$$

$$\text{Upstream Supplier's Profit Function: } \pi = W_i L_i - rL_i$$

$$\pi = W_i \left(\frac{W_i}{\overline{\overline{W}}} \right)^{-\sigma} N^{\frac{\sigma}{1-\sigma}} - r \left(\frac{W_i}{\overline{\overline{W}}} \right)^{-\sigma} N^{\frac{\sigma}{1-\sigma}} \text{ , } \sigma > 1$$

$$\pi = \frac{W_i^{1-\sigma}}{\overline{W}^{-\sigma}} N^{\frac{\sigma}{1-\sigma}} - r \frac{W_i^{-\sigma}}{\overline{W}^{-\sigma}} N^{\frac{\sigma}{1-\sigma}} \text{ , } \sigma > 1$$

Maximizing Upstream Firm Profit with respect to Cost of Specialized Labor Inputs

$$\frac{\partial \pi}{\partial W_i} = (1-\sigma) \frac{W_i^{-\sigma}}{\overline{W}^{-\sigma}} N^{\frac{\sigma}{1-\sigma}} + r\sigma \frac{W_i^{-\sigma-1}}{\overline{W}^{-\sigma}} N^{\frac{\sigma}{1-\sigma}} = 0 \text{ , } \sigma > 1$$

$$(1-\sigma) W_i^{-\sigma} = -r\sigma W_i^{-\sigma-1} \text{ , } \sigma > 1$$

$$1 - \sigma = -r\sigma W_i^{-1} \text{ , } \sigma > 1$$

$$W_i = -r \frac{\sigma}{1-\sigma} \text{ , } \sigma > 1$$

$$W_i = r \frac{\sigma}{\sigma - 1} \text{ , } \sigma > 1$$

$$W_i = r\frac{\sigma - 1 + 1}{\sigma - 1}\ ,\ \sigma > 1$$

$$W_i = r\left(1 + \frac{1}{\sigma - 1}\right),\ \sigma > 1$$

The model isolates the markup that an upstream supplier firm passes on to a downstream PMF, subsequently increasing the burden of the taxpayer. The markup on W_i results from a relatively low elasticity of substitution for specialized inputs, as shown in Model 2. With a non-competitive, monopolistic upstream market, downstream firms find themselves pressed to find suppliers of specialized inputs in order to fulfill their contracts: "each firm's pricing decision imposes an externality on the other firm"[73] Thus, the more competition in the market producing specialized inputs, the higher the elasticity of substitution for specialized inputs rises, the lower the markup ultimately passed on to the consumer, as evidenced by the $\frac{1}{\sigma - 1}$ term in the final equation of Model 2. Aside from increasing the level of competition present in the upstream market, Model 2 suggests another method of minimizing the inefficiency, a solution that has been seen prior use in the privatized military industry, though rarely: vertical integration. In practice, a vertically integrated PMF would own, manage, and operate all assets along the supply chain. In other words, the model suggests that "cooperation (for example, through merger) by internalizing the externality leads to lower prices *and* higher profits—a Pareto improvement."[74]

Some PMFs are no strangers to vertical integration, a move that "explicitly [joins] firms operating at different levels of the production chain," enhancing efficiency, profits, and ultimately, consumer savings. [75] By controlling the supply chain, firms are able to take advantage of otherwise non-existing synergies as they seek to maximize profits. A vertically integrated

---

[73] Pepall, Richards, Norman, *Contemporary Industrial Organization: A Quantitative Approach*, 324.
[74] Ibid, 324.
[75] Ibid, 324.

PMF enjoys production capacities in addition to deployment capabilities, as opposed to a downstream-only asset-light PMF, which only possesses deployment capabilities. But shouldn't all firms act under the same unifying theory of behavior?

The underlying paradigm of PMF operations, like all businesses, assumes a motivation of profit maximization. A firm exists to generate wealth for its shareholders, if publicly traded, or its partners, if privately held. Such a principle holds true across the industry, regardless of corporate culture. Without such a guiding principle, the firm would ultimately fail in the marketplace. Why then, do we find differentiation in corporate structure from PMF to PMF? Why have some chosen to operate in an asset-light fashion while others have chosen to vertically integrate, taking advantage of controlling supply chains? From an economic perspective, a critical point in a firm's lifespan is reached "when the cost or organizing a transaction within the firm becomes equal to the cost of executing it through the market."[76] This tipping point is the barrier that prevents many firms from vertically integrating, subsequently affecting firms' decisions on optimal size. As firms develop, they consequently find themselves vulnerable to an ever growing set of externalities, some of which may negatively affect profits. As such, for many firms, vertical integration would result in an overexposure to potential risk. Furthermore, while a firm that vertically integrates may indeed capture the benefits of removing the monopolistic markup created by upstream-downstream relations, if every firm in the market behaved in the same manner and merged along the supply chain, the benefits of integration would evaporate due to a loss of firm differentiation. Indeed, "we can expect there to be a soft relationship between firm behavior and structural conditions as opposed to a unique behavioral theory which holds for all firms."[77] A case study of a PMF and its distinct choices regarding corporate structure aids in

[76] Dogru, "Outsourcing, Managing, Supervising, and Regulating Private Military Companies in Contingency Operations," 33-34.
[77] Mazzucato, Firm *Size, Innovation, and Market Structure*, 2.

illuminating the advantages afforded by non-vertically integrated, asset-light operations, as is more typically found in the privatized military industry.

Corporate Structure: The Dynamic Case of Blackwater/Xe/Academi

"When you ship overnight, do you use the postal service or do you use FedEx? Our corporate goal is to do for the national security apparatus what FedEx did to the postal service."
– Erik Prince, Blackwater CEO

From humble beginnings in the swamps of North Carolina, a mighty PMF empire grew. Before 9/11 and the resulting explosion in the growth of the PMF industry, Blackwater was a relatively small company. In 1997 the company fielded a staff of only six at its Blackwater Training Center, a six-thousand acre property designed to offer specialized police and military training.[78] In early 2001, founder and CEO, former Navy SEAL Erik Prince, was struggling to make the business profitable. Eventually, Prince decided to expand services by creating Blackwater Target Systems, self-resetting steel targets for shooting ranges.[79] The company found its real niche in the after 9/11, as the United States mobilized in the War on Terror. Under the direction of Vice President Jamie Smith, it doggedly pursued government connections in search of a piece of the burgeoning contracting business. Smith envisioned a "market in hiring out men skilled in State-Department-style personal protection skills and wanted to create a division that had potential as a growth industry."[80] The timing of Blackwater's breakthrough into the privatized military market could not have been more fortuitous. With operations in the Afghan theater stretching U.S. forces thin, the Global Response Staff, or, the division within the CIA responsible for providing protection for both agency employees and facilities abroad, began contracting out field-officer security to the private military industry. Blackwater received its first

[78] Pelton, *Licensed to Kill: Hired Guns in the War on Terror*, 36.
[79] Ibid, 36.
[80] Ibid, 37.

security contract with a $5.4-million six-month obligation.[81] Despite starting off as a model of how a PMF could grow from nothing into one of the predominant security-providers in the world, after several years of successful operations Blackwater eventually faced complications in regard to its overseas conduct.

Why were PMFs initially afforded such latitude when it came to operating in foreign theaters? At the crux of the issue is the fact that laws governing the deployment and conduct of PMFs are underdeveloped due to the relatively new status of the industry. The legal, regulatory, and institutional architecture constructed over the past centuries to govern our public forces were "built in an era when governmental actors fought our wars, delivered our aid, and rebuilt failed states."[82] The agency rules in place are designed to protect against violations committed predominantly by governmental actors, not private actors. For example, the "primary treaty that prohibits torture only bans the practice when a 'public official' commits it… likewise various rules designed to ensure greater transparency and governmental accountability often do not apply to private contractors."[83] The absence of legal governance does not necessarily excuse morally reprehensible actions, but it does aid in partially explaining the legal leeway PMFs have had in operations over the past decades.

From an internal perspective, many PMFs at the outset of the industry's rise did not possess compliance departments as part of their composition. Compliance departments pose a financial burden to firms- while costly to maintain and operate, they produce no revenue. Indeed, "committing a larger share of available human and financial resources to compliance-related activities necessitates that other priorities be deferred or cancelled."[84] From a firm's perspective, internal compliance means that fewer resources are available to develop and expand other,

---

[81] Ibid, 37.
[82] Dickinson*, Outsourcing War & Peace*, 10.
[83] Ibid.
[84] Securities Industry Association, "The Costs of Compliance in the U.S. Securities Industry," 12.

profitable segments of business operations. For these reasons, when the PMF industry first began to develop in unregulated conditions, internal compliance was largely left out of consideration in regards to corporate makeup. While not operating entirely free from consequences, PMFs essentially found themselves on the border of a new, unregulated frontier. Without such appropriate external and internal checks in place, Blackwater was eventually embroiled in several legal complications.

Time and time again, Blackwater found itself testifying before Congress to defend its conduct in the Iraqi theater. The number of reports of employees behaving in an unprofessional manner, such as in the December 24, 2006 shooting of the guard of the Iraqi Vice President, Adil Abdul-Mahdi, or the September 16, 2007 shooting of eleven Iraqi civilians, steadily rose. In 2007, the Iraqi government stripped Blackwater of its license to operate in the country.[85] The close level of attention brought upon the firm revealed a startling number of truths, the most important of which helps illustrate the dynamic and fluid nature of the industry. The relatively loose corporate structure adopted by project-based enterprises such as Blackwater means that "firms offering private security services generally have little capital and are not attached to a particular location. Indeed, [PMFs] have a fluid structure and can rapidly dissolve and recreate themselves as need be."[86] Furthermore, PMFs can also take advantage of existing laws governing corporations in America. These flexible laws allow for the creation of subsidiary shell companies, known as "cover corporations." PMFs engaging in such behavior do so with the ultimate intention of minimizing risk: protecting the parent-firm's reputation and minimizing damages should the firm find itself on the wrong side of the law. If, for example, evidence of legal transgressions were uncovered in relation to the cover corporation, ensuing actions would

---

[85] Hodge, "Company Once Known as Blackwater Ditches Xe for Yet Another New Name," *The Wall Street Journal*, available at http://online.wsj.com/article/SB10001424052970204319004577089021757803802.html.
[86] Avant, *The Market for Force: The Consequences of Privatizing Security*, 67.

be taken against the cover corporation specifically, leaving the parent-company relatively unharmed.

Blackwater found itself under fire for minimizing risk in precisely such a fashion in a hearing before the Committee on Armed Services of the United State Senate. The Committee inquired as to an arrangement Blackwater had entered into as a subcontractor for another PMF, Raytheon. Notably, as part of the agreement, Blackwater created a cover-corporation through which to handle the operation: Paravant. In testimony, Fred Roitz, the former Vice President for Contracts and Compliance at Blackwater, went on record stating that "Raytheon… requested that [the] company name be other than Blackwater."[87] The ease with which PMFs can create subsidiaries in order to protect the parent firm from repercussions is quite astonishing. As Senator Claire McCaskill clarified during the hearing, Paravant and Blackwater were literally identical in all but name, working from the same basic supply of troops, equipment, and resources, citing a prior witness's testimony to that effect:

> Like the previous witness, that was looking at these contracts, he said in the hearing today that he had no idea that Paravant was Blackwater. But yet, the people that were working for you in the theater said, "well, yeah, we worked for Blackwater. Everybody knew we worked for Blackwater. Our paychecks came from Blackwater. We were Blackwater." Blackwater, Blackwater, Blackwater, Blackwater. Paravant just appears to be a classic example of a cover corporation in order for the people who were doing the contract not to know who they were really contracting with.[88]

Creating cover corporations is just one way that PMFs take advantage of the fluid corporate structure afforded by the industry. In addition, PMFs often go through firm rebranding efforts in order to escape from potential blows to public image as a result of their pasts. Reforming an asset-light company proves to be less costly than engaging in alternative strategies, such as media campaigns. Why spend millions on a potentially risky public-relations push when simply

[87] Hearing before the Committee on Armed Services, "Contracting in a Counterinsurgency: An Examination of the Blackwater-Paravant Contract and the Need for Oversight," 64.
[88] Ibid, 64.

starting from scratch is an option? Blackwater has undergone such rebranding efforts, not once, but twice in recent years.

In the aftermath of the bad press stemming from the 2006 and 2007 incidents, Blackwater undertook extensive steps in order to distance itself from the past. In February of 2009, Blackwater began the transition toward rebranding itself as Xe Services. With Erik Prince still at the helm, the firm attempted to shed the stigma associated with its old name "without obliterating its legacy, which [included] a willingness to risk death or injury to protect clients in combat zones."[89] The firm physically relocated its headquarters to Arlington, VA and undertook several efforts in order to convince the State Department and the Pentagon that it was an ethical contractor. The company began marketing itself as "a reformed company with a different approach" with a strengthened "focus on corporate governance and accountability," engaging in a "top-to-bottom review of all company contracts… [identifying] gaps in the performance of regulatory and administrative functions."[90] As a result of its review, a new governance chief in charge of overseeing ethics and legal compliance was installed. In addition, nine vice presidents and sixteen directors were asked to leave the firm, albeit for unspecified reasons.[91] Still, the changes were not enough. The firm struggled to convince clients that it had turned over a new leaf. In 2010, founder and CEO Erik Prince left the firm, selling his stake to investor group USTC Holdings LLC.[92] Eventually, the company formerly known as Blackwater underwent another transition, taking advantage of the fluidity afforded by its corporate structure. It became the company formerly known as Xe Services.

---

[89] Hodge, "Contractor Tries to Shed Blackwater Past," *The Wall Street Journal*, available at http://online.wsj.com/article/SB10001424052970203405504576599123967308168.html

[90] Hearing before the Committee on Armed Services, "Contracting in a Counterinsurgency: An Examination of the Blackwater-Paravant Contract and the Need for Oversight," 52.

[91] Ibid.

[92] Hodge, "Company Once Known as Blackwater Ditches Xe for Yet Another New Name," *The Wall Street Journal*, available at http://online.wsj.com/article/SB10001424052970204319004577089021757803802.html.

On December 12, 2011, Xe officially renamed itself Academi. With a new CEO, Ted Wright, in charge, Academi is striving to change its public image in a way that Xe ultimately failed to do. In an interview, Wright stated: "Do I think the rebranding of Xe was successful? Absolutely not. Here's the reason why: All they did was change the name of the company; they didn't change the company."[93] Wright aims to turn the firm around by trying to be more "boring... the new corporate identity [is] supposed to stress the company's focus on regulatory compliance and contract management."[94] Wright's plan involves a fundamental shift in the company's strategy, changing from a reputation of being a fulfiller of Military Provider Contracts to a repertoire of Military Support Contracts and Military Consulting Contracts. In doing so, Academi seeks to focus on a new sector of business, hoping to avoid connections to its controversy-marred past. Still, the allure of the market for Military Provider Contracts may prove to be influential in the company's decision-making going forward- Academi is putting forth an application to resume conducting guard services operations in Iraq. Coinciding with the withdrawal of U.S. troops at the end of 2011, a recent boom in demand for PMF operators in Iraq has emerged, according to scholar Deborah Avant.[95] Future operations aside, only time will tell if the firm's most recent rebranding will successfully shake the company's past history.

The failure of Blackwater to successfully brand itself as Xe Services raises an important corollary to the fluidity afforded by PMF corporate structure. While the option to rebrand is always present, a successful turnaround of a company must involve more than simply applying a new coat of paint and changing the name. Tangible steps to rectify the problems of the past must occur, such as the expansion of internal compliance services seen in the transition from Xe Services to Academi. While the asset-light corporate structure offers PMFs the *option* of

[93] Hodge, "Contractor Tries to Shed Blackwater Past," *The Wall Street Journal*, available at http://online.wsj.com/article/SB10001424052970203405504576599123967308168.html.
[94] Hodge, "Company Once Known as Blackwater Ditches Xe for Yet Another New Name," *The Wall Street Journal*, available at http://online.wsj.com/article/SB10001424052970204319004577089021757803802.html.
[95] Ibid.

rebranding, a successful turnaround involves more than simply the opportunity. Whether or not Academi is ultimately successful in achieving its goals, one thing is certain: the dissolution and reformation of an entire firm is a result of the unique structural advantage afforded by project-based, asset-light operations.

Corporate Structure: Looking Forward

PMFs are highly sophisticated organisms, operating in a dynamic, project-based environment. Investigating the case of Blackwater/Xe Services/Academi exemplifies the argument that PMFs take advantage of the current statutes governing PMF operations in order to both defend their brand reputations and escape potential legal ramifications for their actions. The study serves as a testament to the unique structural advantages afforded by project-based, asset-light operations, advantages that often go unmentioned in examinations of the privatized military industry. I now turn to an assessment of the cost-benefit analyses currently conducted by governmental agencies, in order to compare the costs of employing a PMF to the cost of utilizing existing military structures.

Cost-Benefit Analysis: The Introduction of Transaction Cost Economics

"The aim of economic policy is to ensure that people, when deciding which course of action to take, choose that which brings about the best outcome for the system as a whole."
– R.H. Coase, Economist

The subject of cost has been discussed previously, in relation to both corporate structure and specific contracts within the privatized military industry. Herein I focus primarily on the subject of cost-benefit analysis. I will explore economic pressures underlying government outsourcing before ultimately concluding with a look at the flawed nature of current analyses conducted by government agencies regarding the use of PMFs. While actors such as the Department of Defense and the Department of State are indeed public institutions, the shift to outsourcing has exposed these agencies to the market pressures on the supply side of the equation, subsequently affecting their internal decisions regarding demand for goods and services.

Transaction Cost Economics: A Primer

The growth and survival of firms in a market has long solicited competing theories from economists seeking to explain such phenomena. A school of thought particularly helpful in explaining interactions between governmental organizations and the private military industry is that of Transaction Cost Economics, first popularized by the economist Ronald Harry Coase. Coase approaches the question of why firms exist in a specialized exchange market by arguing that they are organizations specifically created in order to cut down on inefficiencies caused by a world of imperfect information. The lack of information available to any given individual or firm results in "a cost of using the price mechanism."[96] In other words, transaction costs are the consequences incurred upon an individual or organization attempting to access the market for goods and services. Coase defines markets as infrastructures that exists simply "to facilitate

[96] Coase, *The Firm, the Market, and the Law*, 38.

exchange, that is, they exist in order to reduce the cost of carrying out exchange transactions."[97] With this in mind, firms' decisions are ultimately reduced to two options, both affected by the transaction costs associated with accessing the market: they can contract out for a particular service, or they can perform it internally. As Coase notes, it is vital to "[incorporate] transaction costs into the analysis, since so much that happens in the economic system is designed either to reduce transaction costs or to make possible what their existence prevents."[98]

It would seem impossible to consider any form of market interactions without the incorporation of transaction costs. The privatized military industry is no exception to this rule. Here, "the operation of a market costs something and that, by forming an organization and allowing some authority to direct the resources, certain marketing costs are saved."[99] Governmental agencies face transaction costs embedded in their decision to hire a PMF. These costs are mainly associated with "accessing market information, selection, contract management, and monitoring,"[100] in addition to other expenses such as the penalties associated with training, retirement salaries, and incremental pay increases for soldiers above a standardized salary.[101] Even though transaction costs would appear to compose a significant portion of the financial burden placed upon taxpayers when it comes to contracting for contingencies, they go largely ignored when governmental agencies or committees conduct cost-benefit analyses.

According to Circular No. A-76 regarding the performance of commercial activities, cost-benefit analyses are required to be conducted "whenever commercial sector performance of a Government-operated commercial activity is permissible," adhering to the strict requirement that "when conducting cost of comparisons, agencies must ensure that all costs are considered

[97] Ibid, 7.
[98] Ibid, 30.
[99] Ibid, 40.
[100] Dogru, "Outsourcing, Managing, Supervising, and Regulating Private Military Companies in Contingency Operations," 28.
[101] Williams, *Filling the Ranks*, 11.

and that these costs are realistic and fair."[102] While governmental agencies are intuitively held to less rigorous standards of cost-efficiency than firms due their demand for expediency, in addition to other internal incentives as previously discussed, they are still held accountable by public pressure against wasteful use of taxpayer dollars. What then, is the actual cost of deploying U.S. soldiers to perform a service versus the cost of employing a PMF to execute the identical task?

The Construction of a Cost-Benefit Analysis

The Commission on Wartime Contracting in Iraq and Afghanistan conducted a cost comparison analysis of employing PMFs versus their military counterparts in 2011, based on years of data gathered from United States' contingency operations in Afghanistan, Iraq, and the surrounding theater of war. The Commission ultimately concluded that:

> for lower- and mid-level-worker skills, contractors employing local or third-country nationals are less costly than military or federal civilian employees. However, when contractors employ U.S. citizens in higher-skill positions… their costs are roughly equivalent to military and federal civilians in comparable grade levels. The military is substantially more expensive when the contingency extends beyond rotation cycles and dwell costs are recognized.[103]

In its analysis, the Commission thoroughly takes into account the "full cost to the government" of deploying a U.S soldier.[104] The "full cost to the government" measurement includes the following litany of considerations: average basic pay, retired-pay accrual, Medicare-Eligible Retiree Health Care accrual, housing and subsistence allowances, incentive and special pay, permanent change of station expenses, miscellaneous pay, cost of recruitment, cost of advertising, cost of training, Department of Education impact aid to schools and Department of Labor training and employment of veterans among others.[105] In coming to its conclusions, the Commission included the associated cost to the U.S. Government of rotation cycles and dwell costs, or, the cost of the time soldiers spend between deployments. The Army, for example, seeks

[102] Circular No. A-76, 1, available at www.whitehouse.gov/sites/default/files/omb/assets/omb/circulars/a076.pdf.
[103] Commission on Wartime Contracting in Iraq and Afghanistan, 226.
[104] Ibid, 228.
[105] Ibid, 228.

to hold a 1-to-2 dwell ratio, or 24 months of rest, recovery, and family time following 12-months of combat deployment.[106] While the dwell ratio significantly affects cost-benefit analysis, I choose to not incorporate it in the subsequent examination. When attempting to construct a comparison between PMF services and government services, I believe the most accurate representation will be a 1-to-1 Full-Time Employment (FTE) analysis, or, a comparison that includes all associated financial burdens and transaction costs going into the full time deployment of either a U.S. soldier, or a PMF employee. I make the choice to look at 1-to-1 FTE data, omitting dwell ratio consideration, in order to observe the situation with the same time-unit of analysis. In order to begin assessing the comparative value-added by both the private and public sector when performing an identical task, they must be observed under equivalent circumstances. The following table presents a detailed deconstruction of the FTE costs associated with deploying a U.S. soldier for a year. The Commission's estimates here take into account the full cost of training a soldier.

Table 3. Military FTE Cost Estimates

	O-3 (Army Captain)	E-4 (Corporal)	E-3 (Private 1/C)
Annual Defense Composite Rate (2010 dollars)	$122,616	$56,378	$47,221
Adjustments from DTM 09-007 for Defense costs (2008 dollars)	16,997	16,997	16,997
Additional adjustments from DTM 09-007 for other costs to the government (2008 dollars)	12,659	12,659	12,659
Overhead (12 percent on Composite Rate)	14,715	6,765	5,667
Contingency special pay (5 percent)	8,349	4,640	4,127
Total FTE cost for year deployed	**$175,335**	**$97,439**	**$86,671**

Of particular interest are the costs included in the DTM 09-007 adjustments, which cover the "costs for recruitment and advertising, training, subsidized groceries (commissaries), education assistance, child-development service, and other costs that are incurred through the

[106] Commission on Wartime Contracting in Iraq and Afghanistan, 230.

provision of non-monetary benefits to military members"[107] It is these non-monetary benefits, provided before a soldier is even deployed, that traditional cost-benefit analyses ignore when comparing privatized service offerings to identical government services.

In addition to estimates of FTE military deployment costs, the Commission's report includes estimates for the FTE cost of a PMF employee. Here, billing costs per FTE are based on a data sample of 1,000 contracts compiled by the Theater Financial Management Cost Team (TMFCT), a U.S. Army task force created with the purpose of calculating the "actual" cost to the U.S. government of both public and private field operations.[108] The TMFCT's results were reported in two distinct methods: the first, a July 17, 2009 memorandum from the Commanding General, Joint Contracting Command-Iraq/Afghanistan; the second, a partial reproduction of the report in a briefing presented to the Commission by the Chief of Staff, U.S. Army Material Command.[109] The values presented by these two sources for hiring Third Country Nationals (TCN) and Local Nationals (LN), coincide. However, a curious incongruence occurs in the reporting of the contract billing costs per FTE for U.S. contractors, as seen in the following table:

Table 4. Contractor Costs in Iraq

	U.S. Citizen	LN	TCN
Contract billing costs per FTE	**$185,700 or $231,600**	**$35,700**	**$65,000**

The inexplicable difference between the two sources asides, Table 4 represents a snapshot of contractor cost to the government, including both their overhead and contingency special fees. What Table 4 omits, however, are the sunk costs of contract billing per FTE previously incurred by the U.S. government, specifically, the burden created by the DTM 09-007 adjustments.

[107] Ibid, 228.
[108] Memorandum for Senior Executive Service (SES) Selection Committee, 1. available at http://www.anvari.net/1_PorfAnvari%5CSES/3_Anvari_Letters%20of%20Recommendation%20.pdf.
[109] Commission on Wartime Contracting in Iraq and Afghanistan, 234.

The privatized military industry fills its ranks with ex-soldiers- soldiers previously trained by sovereign governments and tax dollars. From the firm's perspective, "this means that the cost of investment in employees' skills, including the most specialized of military proficiencies that took years and tens of thousands of dollars of public spending to develop, is almost negligible..."[110] It is impossible to put a precise number on the value of this "ex-factor" sunk cost, as indeed, perhaps one of the main reasons for PMF employees receiving higher salaries is their wealth of prior experiences: "hardware can be acquired from almost any source, but appropriate expertise is hard to come by."[111] With this in mind, simply subtracting DTM 09-007 adjustments away from contractors billing costs per FTE would result in a faulty conclusion. Ultimately, the U.S. government is implicitly making a value judgment about the sunk costs of training soldiers each and every time a new contract is signed with a PMF. The judgment is one of critical importance- the U.S. President's FY2012 budget currently allocates over $11.5 billion for recruiting, advertising, examining, training and educating of U.S. military personnel.[112] Cost-benefit analyses that fail to take into account the fact that PMFs rely on former military personnel to fill their ranks present a false portrait of the contracting choices facing our government. Such calculations artificially inflate PMF value without factoring in an appropriate counter-balance that gives consideration to prior sunk transaction costs.

In its analysis, the Commission found that, in general, LNs and TCNs were employed for lower-skilled work than their U.S. counterparts, performing duties on par with the technical sophistication of Private 1/Cs and Corporals, such as food service and construction respectively.[113] Taking the Commission's findings into account allows for the creation of an all

---

[110] Singer, *Corporate Warriors: The Rise of the Privatized Military Industry*, 77.
[111] Ibid, 77.
[112] Office of the Under Secretary of Defense (Comptroller), "Operation and Maintenance Overview, Fiscal Year 2012, Budget Estimates," 167-176.
[113] Commission on Wartime Contracting in Iraq and Afghanistan, 226.

inclusive table, providing a side-by-side look at how complexity of work affects the price per FTE.

Table 5. Cost-Comparison of Contractor FTE Costs vs. Military FTE Costs

Skill Level Required	Work Example	Contractor FTE Costs	Military FTE Costs
Lower	Food service	LN = $35,700 TCN = $67,600	E-3 (Private 1/C) = $86,671
Middle	Construction; plumber; electrician	LN = $35,700 TCN = $67,600	E-4 (Corporal) = $97,439
Higher	Communications support; guard services	U.S. Citizen = $185,700 or $231,600	O-3 (Army Captain) = $175,335

For services of a higher technical value such as communications support or guard services, PMFs appear to charge either a 6% or a 32% premium over their U.S. government equivalent counterparts, dependent on the source of contractor FTE costs. The percentages themselves, it should again be noted, are artificially low. They fail to take into account the previously mentioned transaction cost, the "ex-factor" sunk charge to the U.S. taxpayer of training future privatized military employees. The above table reveals that the employment of LNs and TCNs for less technically sophisticated contracts that move further and further from the "tip of the spear" has the potential to be of great cost-savings to taxpayers. This revelation is particularly noteworthy, as it suggests a much more dynamic answer to question of whether or not outsourcing military action is cost-effective. In some cases, where LNs and TCNs can be heavily relied upon as a source of relatively cheap labor, "local and third-country nationals… offer significant cost advantages."[114] On the other hand, when it comes to providing services for contracts edging closer to the "tip of the spear," it may be significantly more costly to employ PMFs than the U.S. military, to the tune of a 32% premium for PMF services.

[114] Commission on Wartime Contracting in Iraq and Afghanistan, 235.

A Question of Value

A final consideration for an accurate cost-benefit analysis is the issue of the quality of goods and services provided by both PMFs and their public military counterparts- are taxpayers actually receiving a perfect substitute in terms of the outcome value of the exercised contract? Although assessing the value of a construction job or janitorial services is relatively simple, measuring the value created by, or the transaction cost of, contracting out work such as guard services or military strategizing is more difficult. In order to determine such measures of value and to see exactly in what areas PMFs might perform a service equal to, or greater than, their counterparts in the public military, "performance of [PMFs] and militaries must be measured and compared on a case-by-case," or, contract-by-contract, basis. [115] Looking at one particular example, the deployment of Blackwater employees in order to provide guard services in Iraq, suggests that at the very least, PMFs are as effective as, if not as cost-effective as, the U.S. military at what they do. In testimony before the Committee on Oversight and Government Reform in the House of Representatives, Blackwater founder and former CEO Erik Prince testified about his firm's success in fulfilling contracts. The following is an excerpt, detailing an exchange between Prince and Representative Christopher Shays, on the subject of contract-fulfillment, using the metric of the asset-protection:

> Mr. Shays: I am going to do year by year. Did you have anyone wounded or killed in 2004?
> Mr. Prince: No, sir.
> Mr. Shays: Did you have anybody wounded or killed in 2005?
> Mr. Prince: No, sir.
> Mr. Shays: These are the people you are trying to protect.
> Mr. Prince: I mean wounded, yeah. A big IED [(Improvised Explosive Device)] ruptured an eardrum. That is the most serious level there.
> Mr. Shays: Did you have anyone wounded or killed in 2006?
> Mr. Prince: People that we were protecting?
> Mr. Shays: Yes.

[115] Dogru, "Outsourcing, Managing, Supervising, and Regulating Private Military Companies in Contingency Operations," 33.

> Mr. Prince: No, sir.
> Mr. Shays: Did you have anyone who was wounded or killed in 2007 that you were to protect?
> Mr. Prince: No, sir.
> Mr. Shays: That is a perfect record, and you don't get any credit for it for some reason.
> …
> Mr. Shays: Every year, you have had men who have risked their lives and who have been killed, fulfilling their mission, and they have succeeded 100 percent, and I just want to be on record as thanking you for an amazing job that you do.[116]

While only the results from one particular relationship between sovereign government and PMF, the testimony in the case of Blackwater provides an indelible reminder that by certain metrics, the privatized sector can be exceedingly successful in handling contracts.

Incorporating transaction cost economics into the more traditional method of conducting a cost-benefit analysis yields a more complete picture of PMFs vs. their counterparts providing goods and services in contingencies. The "ex-factor," or the sunk cost of training a U.S. soldier, as well as consideration of the actual value-add created by PMF contracting, are two glaring issues that must be more closely examined by appropriate oversight boards within the government. Through delineation and exploration, an accurate assessment of the overall utility of employing PMFs, under varying circumstances and for provision of differing services, could see fruition.

Cost-Benefit Analysis: Looking Forward

The inclusion of transaction cost economics is essential to producing a comprehensive study of how much a PMF employee truly costs in comparison to their government counterpart. The prior analysis demonstrates how sunk costs, such as those associated with the government training of soldiers who later go on to join PMF ranks, are imperative to consider. The analysis raises concerns regarding the imperfect nature of current cost-benefit analyses, and raises suggestions for how future examinations might be conducted.

---

[116] Hearing before the Committee on Oversight and Government Reform, "Serial No. 110-89," 68.

Conclusion

"Just as the public institutions of the state have served both good and evil ends, so too can the privatized military industry."
– Peter Singer

Overview

This thesis sought to analyze the intricacies of the privatized military industry, with a specific intent to examine the operations of PMFs from an economic perspective. The academic literature surrounding PMFs often focuses on the sector's effects in regards to foreign policy, yet fails to take into account the specific economic forces driving both the rise and evolution of the industry. In this respect, employment of PMFs by United States governmental agencies often overlooks the incentives shaping firm choices, resulting in potentially higher net costs to taxpayers than if the functions in question had not been outsourced. I sought to address previous academic oversights by introducing questions surrounding the inherent lack of competitiveness in today's PMF contracting process; the dynamism, and subsequent inefficiencies, resulting from a project-based asset-light corporate structure; and the failure of the government to take into account transaction-cost economics when conducting cost-benefit analyses comparing a PMF employee to their public counterpart. I now seek to provide an overarching argument for how incorporation of economic drivers into the conversation surrounding the privatized military industry could affect the regulation of the field in the future, ensuring that the government can better outsource security in both an efficient and effective manner.

Recommendations

The economic intricacies governing the use of Privatized Military Firms prove relevant for both academic and pragmatic purposes. PMFs stand at the intersection between the public and private sectors, introducing layers of complexity into the already murky realm of contingency operations. A key is to recognize the tension that fundamentally exists between economic efficiency and military priorities. What makes the most fiscal sense from the perspective of a taxpayer might not always align with national security interests, and vice versa. Still, the importance of PMF contingency contracting cannot be overstated, with billions of dollars in U.S. Government funds flowing to the private sector every year. A pressing policy concern is the clash of incentives at work in the contracting industry, both on the part of governments and on the part of PMFs. In order to address the specific issues in the field, I recommend the expansion of governmental oversight of the industry. Regulation carried out by the public sector is the only manner in which the economic inefficiencies within the field can undergo consideration and mitigation.

Such calls to act are not new. In 2003, Singer articulated the "importance of sophisticated mechanisms of monitoring and oversight"[117] Six years later, in a memorandum on government contracting, President Obama called for "the Federal Government [to] have the capacity to carry out robust and thorough management and oversight of its contracts in order to achieve programmatic goals, avoid significant overcharges, and curb wasteful spending."[118] The calls to act have gone largely ignored, as military contracting continues today in much the same way as when it came to prominence in the aftermath of 2001. As of this thesis' writing, no other order has been issued from the Office of the President on the subject of military contracting waste, despite the U.S. Government's vested interest in eliminating economic inefficiencies within the system of privatization. Doing so will result in cost savings that can be redirected elsewhere, in addition to an increase in the efficacy of U.S. military power. The creation or advancement of positions of oversight, tasked with ensuring that the government reaps the benefits of the competitive market, would relieve the significant burden as a result of waste currently placed on every tax-paying individual in society.

---

[117] Singer, *Corporate Warriors: The Rise of the Privatized Military Industry*, 152.
[118] Obama, Memorandum for the Heads of Executive Departments and Agencies, available at http://www.whitehouse.gov/the_press_office/Memorandum-for-the-Heads-of-Executive-Departments-and-Agencies-Subject-Government/.

The ability to contract out to PMFs for non-inherently governmental functions would appear to be a boon to taxpayers, if the obligations to be awarded were subject to market pressures. Unfortunately, a dangerous, anti-competitive precedent has been set where no-bid contracts are a part of the norm and where contracts are extended without being recompeted. In order to establish PMFs as a legitimate alternative to public providers, the cost-saving advantages of free and fair competition must be maintained. To this end, government oversight should target and end the present practice of awarding no-bid contracts, whenever possible. While in conflict with government pressures to respond expediently to unusual and compelling circumstances, the move to eliminate anti-competitive contracting will reduce waste in the system. Currently, U.S. governmental agencies have been too quick to deem contracts as urgent, discarding the clearest benefit to privatization. To enact a reversal in this trend, oversight must be implemented and tasked with individually reviewing and assessing contracts for compliance with their designation as pressing matters.

In a similar vein, governmental oversight should encourage a move away from cost-reimbursement contracts towards fixed-cost contracts, with the understanding that such a policy shift would dramatically reduce the capacity on the part of PMFs to engage in profit-maximizing margin calls. Pushing the industry in the direction of fixed-cost contracts will force firms to provide the government with their best possible offer from the start, instead of allowing the opportunity to build in rent-seeking behavior. Such a shift will save taxpayer resources, solicit improved privatized performance, and ultimately result in greater accountability.

In addition to regulating the nature of contracts, Government oversight should investigate the current methods of contract-advertisement. Ensuring a dedicated effort to market contracts as widely as possible would mitigate the concerns raised in Model 1. By soliciting a higher degree of competition, PMFs following a rational bidding strategy will be forced to lower their cost-bids in order to increase their chance of winning the contract. Even if the government only intends to seriously contemplate a small number of firms for a particular contract, the inclusion of as many firms as possible in the auction process will force the firms under consideration to produce the same service at a cheaper price.

Government oversight, while not capable of eliminating the inefficiency caused by upstream-downstream monopolistic relationships as shown in Model 2, is capable of targeting and improving the fundamental foundations of PMFs. As demonstrated through the complications that shrouded Blackwater, a great need exists for proper legal regulation within the industry. At present, PMFs operate with relative impunity from the law thanks to a lack of internal compliance requirements and external legislation governing their actions. While encouraging PMFs to develop internal monitoring departments would help defray the ultimate cost of regulation to the Government, only external oversight carried out by a public body will ensure appropriate behavior and adherence to the law. Developing a national agenda to PMF employment, picking up where Barack Obama left off in his 2009 memorandum, should be a priority of the legislative branch of the U.S. Government. The clear delineation of PMF actions and their resulting consequences will ultimately be the only method with which firms can be held accountable for indiscretions, in a court of law.

Finally, U.S. Government oversight should take into account the questions raised by transaction cost economics when considering whether or not to contract out a service to a PMF. Officials should revaluate the current techniques used by governmental agencies to construct cost-benefit analyses, in order to incorporate the sunk costs associated with government training of soldiers who later go on to join PMF ranks. A consistent methodology for conducting cost-benefit analyses should be designed and implemented across the spectrum of military divisions, ensuring that a standardized approach to cost versus benefit is employed.

The implementation of proper oversight and legal regulation will require both time and political will. It is my hope that consideration of economic inefficiencies inherent in the privatized military sector will draw attention to the need for such a movement and provoke future studies in the areas discussed.

Final Thoughts

Modern theories of politics and economics assume that force and statehood share an inseparable bond. This notion has arguably been eroded over the decades as a new breed of for-hire soldier emerged on the battlefield, eventually forming the basis for a robust and thriving privatized military sector. At the crux of the matter lies the question of whether or not a Privatized Military Firm can, and should, be involved in the security of a state. As has been demonstrated throughout the thesis, the industry is far from perfect in terms of economic efficiency, introducing a host of externalities upon an already complex world of military interactions. These externalities range from potential positives such as the success rate of PMFs carrying out guard operations, to potential negatives such as the possibility of higher costs as a result of the problem of "double marginalization." While proponents would say that a free and fair market would limit private military firms from producing negative externalities, weeding out the firms that might otherwise engage in questionable behavior and practices, the very trouble is that the system of private security contracting in place today is a far cry from a free and fair open market. Absent competition, as a result of the government's lack of oversight and clearly demonstrated willingness to distribute non-competitive contracts, there is no check in place to make sure that private commercial aspirations for profit-maximization align with the public's desire for security and ethical conduct.

As long as war exists, there will be soldiers. As long as the demand for soldiers continues, there will be a supply-side push on the part of the free markets to fill the need for properly trained, equipped, and commanded troops. PMFs have indeed proven themselves over the past decade to be an effective, if not efficient, supplement to traditional state-run armies. The same conditions that led to the rise of the market for force in the aftermath of the Cold War still, for the most part, remain: the world market continues to have an abundant, cheap supply of weaponry; changes in military capabilities as a result of technological progress show no signs of abatement; and both inter and intra-state conflict show no sign of letting up. This thesis made no attempt to say that turning to the market is in any way the wrong direction for war to take. Rather, it attempted to argue the importance of viewing the industry through the proper lens, in order to understand broader policy implications of employing PMFs.

When studying the privatized military industry, it is crucial to bear in mind the economic externalities imposed through PMF employment. In the end, policy prescriptions towards the industry cannot be effective without a robust understanding of its economic underpinnings. It is my hope that this work has begun to shed light on an otherwise un-scrutinized aspect of the crucial security sector. Truly, the ability to access the markets in the pursuit of security has shifted global paradigms under which all countries operate. Thus, it is vital that our understanding of the privatized military sector continue to evolve, considering all facets of the fascinating industry in the pursuit of the efficient and effective use of force.

References

Avant, Deborah. *The Market for Force: The Consequences of Privatizing Security*. New York: Cambridge University Press, 2005.

Bagget, Rex. "Memorandum for Senior Executive Service (SES) Committee: Recommendation of Mr. Morteza Anvaari for Promotion to SES Position." June 29, 2010, http://www.anvari.net/1_PorfAnvari%5CSES/3_Anvari_Letters%20of%20Recommendation%20.pdf.

Boone, Jan. "The Effects on Investments in Product and Process Innovation," *The RAND Journal of Economics*, vol. 31, no. 3, (Autumn, 2000), 549-569.

Commission on Wartime Contracting in Iraq and Afghanistan, "Transforming Wartime Contracting: Controlling costs, reducing risks." (August 2011).

Chakraborty, Shankha and Dabla-Norris, Era, "Rent Seeking," *IMF Staff Papers*, vol. 52, No. 1 (2006), 28-49.

Coase, Ronald Harry. *The Firm, the Market, and the Law.* Chicago: The University of Chicago Press, 1988.

Committee on Armed Services. "S. HRG. 111-571: Contracting in a Counterinsurgency: An Examination of the Blackwater-Paravant Contract and the Need for Oversight." February 24, 2010.

Committee on Oversight and Government Reform House. "Serial No. 110-89." October 2, 2007.

Dickinson, Laura A. *Outsourcing War & Peace*. New Haven: Yale University Press, 2011.

Dogru, Ali Kemal. "Outsourcing, Managing, Supervising, and Regulating Private Military Companies in Contingency Operations." September, 2010.

Elsea, Jennifer. "Private Security Contractors in Iraq and Afghanistan: Legal Issues." *Congressional Research Service.* January 7, 2010.

Erickson, Tammy. "The Project-Based Workforce." *Bloomberg Business Week*, January 31, 2008, accessed March 12, 2012, http://www.businessweek.com/managing/content/jan2008/ca20080131_957836.htm.

Greenhouse, Bunnatine. "An Oversight Hearing on Waste, Fraud, and Abuse in U.S. Government Contracting in Iraq." *Senate Democratic Policy Committee Hearing*, June 27, 2005, http://democrats.oversight.house.gov/images/stories/documents/20050627170012-64293.pdf

Hodge, Nathan. "Contractor Tries to Shed Blackwater Past." *The Wall Street Journal*, September 29, 2011, accessed April 4, 2012, http://online.wsj.com/article/SB10001424052970203405504576599123967308168.html.
"Company Once Known as Blackwater Ditches Xe for Yet Another New Name." *The Wall Street Journal,* December 12, 2011, accessed April 4, 2012, http://online.wsj.com/article/SB10001424052970204319004577089021757803802.html.

Harding, Jeremy. "The Mercenary Business: 'Executive Outcomes.'" *Review of African Political Economy*, vol. 24. No. 71 (March 1997), 87-97.

Mazzucato, Mariana. *Firm Size, Innovation and Market Structure*. Northampton: Edward Elgar Publishing Limited, 2000.

Maly, Jiri and Palter, Robert N. "Restating the value of capital light." *McKinsey on Finance*, no. 5, (Autumn 2002), 1-5.

O'Connel, Robert L. *Of Arms and Men: A History of War, Weapons, and Aggression* (New York: Oxford University Press, 1989)

Obama, Barack. "Memorandum for the Heads of Executive Departments and Agencies. Subject: Government Contracting." March 4, 2009, http://www.whitehouse.gov/the_press_office/Memorandum-for-the-Heads-of-Executive-Departments-and-Agencies-Subject-Government.

Pelton, Robert Young. *Licensed to Kill: Hired Guns in The War on Terror*. New York: Three Rivers Press, 2006.

Pepall, Lynne and Norman, George. "Product Differentiation and Upstream-Downstream Relations." *Journal of Economics & Management Strategy*, vol. 10. no 2. (Summer 2001), 201-233.

Pepall, Lynne, Richards, Dan, and Norman, George. *Contemporary Industrial Organization: A Quantitative Approach.* New Jersey: John Wiley & Sons, Inc.

Securities Industry Association. "The Costs of Compliance In the U.S. Securities Industry: Survey Report." February 2006.

Silverstein, Ken. "Privatizing War: How Affairs of State are Outsourced to Corporations beyond Public Control." *The Nation*, vol. 7 (28 July 1997), 11-17.

Singer, Peter. *Corporate Warriors: The Rise of the Privatized Military Industry*. New York: Cornell University Press, 2003.

Taulbee, Larry. "Reflections on the Mercenary Option." *Small Wars and Insurgencies* 9, no.2 (Autumn 1998): 145-163.

Thomson, Janice. *Mercenaries, Pirates, and Sovereigns: State-Building and Extraterritorial Violence in Early Modern Europe*. Princeton, N.J. Princeton University Press. 1994.

United States. Department of Defense, Office of the Assistant Secretary of Defense. "No. 1052-11." December 30, 2011.
"Operation and Maintenance Overview: Fiscal Year 2012 Budget Estimates." February 2011.

United States. General Services Administration, Department of Defense, National Aeronautics and Space Administration. *Title 48 - Federal Acquisition Regulation*. March, 2005.

United States. Office of the Special Inspector General for Iraq Reconstruction. "Review of DynCorp International, LLC, Contract Number S-LMAQM-04-C-0030, Task Order 0338, For The Iraqi Police Training Program Support." (2007).

United States. The Office of Management and Budget. "FAIR Act: 31 USC 501." (2009).

United States. The Office of Mnagement And Budget. "CIRCULAR NO. A-76." August 4, 1983, (Revised 1999), www.whitehouse.gov/sites/default/files/omb/assets/omb/circulars/a076.pdf.

Weber, Max. "Politics as a Vocation" 1919. Available at: http://www2.selu.edu/Academics/Faculty/jbell/weber.pdf.

Weinberger, Sharon. "Windfalls of war: KBR, the government's concierge." *iWatch News by The Center for Public Integrity*, August 30, 2011, accessed March 8, 2012, http://www.iwatchnews.org/2011/08/30/5990/windfalls-war-kbr-governments-concierge.
"Windfalls of war: Taxpayers get hammered by Pentagon attempts to 'one-stop-shop'," *iWatch News by the Center for Public Integrity*, September 1, 2011, accessed March 8, 2012, http://www.iwatchnews.org/2011/09/01/6017/windfalls-war-taxpayers-get-hammered-pentagon-attempts-one-stop-shop.

Webster's Dictionary. (Springfield, Mass.: C & G. Merriam Co., 1996)

Williams, Cindy. *Filling the Ranks: Transforming the U.S. Military Personnel System.* Cambridge: The MIT Press, 2004, 1-28.