MONEY WAR: OBSERVING TRENDS IN MILITARY EXPENDITURE AND
CONFLICT DEATHS

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Abstract

This study looks at trends between data on military expenditures and conflict deaths to better understand how military and fiscal policy influences the outcomes of war. Although strong correlations between military expenditures and conflict deaths do not exist in most of the cases described in this study, years in which expenditures and deaths trend together often draw attention to significant events or policy changes that are ripe for qualitative analysis.

The primary methodology herein is to chart countries military spending and conflict deaths and to examine years, or periods of years, where military spending and conflict deaths either trended closely together or strongly diverged. Spending data throughout the study is in U.S. dollars. This data is also depicted at constant rates as noted to help readers better compare trends across years. Although this methodology does not control for the many intervening variables inherent in politics or conflict, it does reveal insights when applied across the range of cases observed in the following chapters.

Chapter two of this study specifically examines the U.S. program of Foreign Military Sales, in which the U.S. Government sells military technology, hardware, and training directly to foreign governments. These sales rarely proceeded increases in conflict deaths, suggesting that this program does not drive increased conflict violence and is thus a safe tool to employ over the short-term. Chapter three examines the military budgets of Colombia, Sri Lanka, Ethiopia, and Israel, and demonstrates significant

variance in military spending and conflict deaths between countries based on both a country's overall level of expenditure and their primary security threat. Chapter three looks primarily at countries facing insurgencies and confirms the findings from chapter three by showing reliably negative correlations between high military spending and conflict deaths in countries with internal conflicts.

This study concludes that although strong correlations between military expenditures and conflict deaths are the exception, these cases should be examined to expand the understanding of conflict resolution and strengthen policymaking. Counterinsurgency efforts appear to benefit from high military spending when such funding is applied through local government channels and low military spending in poorer countries may be the product of necessity but interventions from allies may help prevent conflict catastrophes.

Primary Reader: Jacob R. Straus, Ph.D.

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Chapter One

Introduction

At 2 trillion dollars, global military expenditures accounted for over two percent of the total wealth generated worldwide in 2019.[1] With a budget of 686 billion dollars, the U.S. accounts for 36 percent of this total[2] spending just over three percent of GDP on defense in 2019. Some countries with smaller budgets spend equally high amounts, such as Colombia, which also spent fully three percent of its GDP on defense in 2018.[3] With spending at such a high level, understanding the consequences of these expenditures, positive or negative, should be of great interest to scholars and policymakers alike. If two or three percent of a country's GDP is the cost of the safety and security of a nation and its people, this is likely money well spent. If this spending is drawing a country into conflict, causing the deaths of a nation's citizens or those in neighboring countries or further afield, it should be viewed with skepticism.

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[1] See: "Global Military Expenditure Sees Largest Annual Increase - Says SIPRI – reaching $1917 billion in 2019," Stockholm International Peace Research Institute, 27 April 2020, https://www.sipri.org/media/press-release/2020/global-military-expenditure-sees-largest-annual-increase-decade-says-sipri-reaching-1917-billion. And: "GDP (Current US$)," The World Bank, 2020, https://data.worldbank.org/indicator/NY.GDP.MKTP.CD.

[2] "FY 2019 Defense Budget," U.S. Department of Defense, February 2018, https://dod.defense.gov/News/SpecialReports/Budget2019.aspx.

[3] Calculated based on World Bank GDP data and military spending figures from SIPRI. See note 1.

Scholars have examined how military spending has affected conflict outcomes,[4] and how it is used to procure and equip soldiers with new technologies.[5] With such vast wealth at the disposal of military leaders and a vast array of tasks to spend it on, from research and development, to training, to supplying troops on the battlefield, there are many ways to account for and quantify military expenditures. One of the most fundamentally unique elements of military activity, however, is the military's state sanctioned ability to kill. With the exception of some recent studies,[6] the relationship between military spending and military killing has largely avoided systematic scrutiny. This study begins to apply some scrutiny by examining the relationship between military expenditure and conflict deaths.

Scholars have been concerned with military use of force, perhaps never more so than during the Cold War, when they had to grapple with the new reality of nuclear weapons and were thus faced with the existential concern of human annihilation resting under the control of just a few powerful men. The rise of nuclear arsenals also coincided with an increase in military spending, which became a topic of additional concern among theorists of military strategy.[7] In the nuclear context, however, there is little point in quantifying the killing potential for which a country may have paid, in light of the reality

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[4] Errol A. Henderson and Reşat Bayer, "Wallets, Ballots, or Bullets: Does Wealth, Democracy, or Military Capabilities Determine War Outcomes?" *International Studies Quarterly* 57, no. 2 (June 2013): 303–17. doi:10.1111/isqu.12026.

[5] Warren Chin, "Technology, War and the State: Past, Present and Future," *International Affairs* 95, no. 4 (July 2019): 767. doi:10.1093/ia/iiz106.

[6] Carrie A. Lee, and John Kendall, "Use It or Lose It: The Political Economy of Counterinsurgency Strategy," *Armed Forces & Society* 45, no. 3 (July 2019): 399–429. doi:10.1177/0095327X18790570.

[7] See note 5: p. 770.

that even by the 1950s, the U.S. and Russia could both likely kill every person on Earth many times over.[8]

President Ronald Reagan's (R) concept of "peace through strength" was the U.S.'s answer to this existential problem. It established a defensive military regime based on the high levels of military spending required to develop the needed "strength" in this new world of nuclear weapons, intercontinental ballistic missiles, and missile defense systems. His White House biography links this concept to a 35 percent increase in military spending during his presidency.[9] The premise behind this concept, built upon the neorealist political theories of Kenneth Waltz and others, is that by building up insurmountable military force, a country can protect itself against attack.[10] Naturally, adherents to this philosophy advocate for high levels of military spending to build up the forces viewed as necessary to create strength and the resultant peace they believe will follow. This view has persisted in U.S. foreign policy with the current administration's 2018 budget proposal citing "peace through strength" in conjunction with a 65 billion dollar requested increase in military spending.[11]

President Reagan's foreign policy is not without critics who view the increased military spending called for by peace through strength adherents as a false premise. Scholar Andrew Bacevich describes Reagan's 1983 assurances that the United States was

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[8] Max Roser and Mohamed Nagdy, "Nuclear Weapons," *OurWorldInData.org.* (2013). https://ourworldindata.org/nuclear-weapons'. From: Hans M. Kristensen and Robert S. Norris, "Nuclear Weapons Inventory by Country," Federation of American Scientists. http://thebulletin.org/nuclear-notebook-multimedia.

[9] Frank Freidel and Hugh Sidey, "Ronald Reagan," (The White House, 2006) https://www.whitehouse.gov/about-the-white-house/presidents/ronald-reagan/.

[10] Kenneth N. Waltz, "The Origins of War in Neorealist Theory." *The Journal of Interdisciplinary History* 18, no. 4 (1988): 616. doi:10.2307/204817.

[11] Office of Management and Budget, "America First: A Budget Blueprint to Make America Great Again," (March 16, 2017): 15. https://www.whitehouse.gov/wp-content/uploads/2017/11/2018_blueprint.pdf.

inherently peaceful as "at least 50 percent bunkum," writing that "American military tradition has never viewed defense as anything other than a pause before seizing the initiative and taking the fight to the enemy."[12] In the strategic context of the Cold War, however, the conflicts that did occur were not nuclear but conventional and often fought between proxies.

In fact, violent conflict among major powers ceased in the form it was known prior to 1945 and the modern era has seen a series of proxy conflicts play out between global powers from Latin America to Southeast Asia and the Middle East. Despite the great existential worries of Cold War scholars, their worst fears have not been realized. Cold War concepts of defense and international security have altered the new conflict environment, however. The paradigm of high military spending has set the stage for numerous modern conflicts and in many cases contributed to their development by supplying arms or allowing militarized actors to get involved. The question is, to what end?

Thinking outside the Cold War concepts of defense strategy, which have diminished,[13] particularly in the post 9/11 context, questions relating to military spending and conflict can be grounded in observations and data rather than philosophy and hypotheticals. Globally, military budgets and the associated "strength" they bring have soared while conflict deaths have trended downwards. Despite this broad finding, it may seem logically obvious that the development and distribution of increasingly efficient and deadly weapons of war could only lead to an increase in death and misery. In the complex geopolitical world in which conflicts exist, this does not appear to be the case.

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[12] Andrew J. Bacevich, *Twilight of the American Century*. (Notre Dame: University of Notre Dame Press, 2018): 310.
[13] William J. Crowe Jr., and Alan D. Romberg. "Rethinking Security in the Pacific." *Foreign Affairs* 70, no. 2 (Spring 1991): 123–40. doi:10.2307/20044713.

One can argue that proliferating conventional weapons creates a deterrent effect just as Cold War theorists proposed. Countries with evenly matched arsenals would be left afraid to challenge each other and outmatched armies could be forced to capitulate thereby avoiding potential conflict. Similarly, efficient arsenals may lead to quick victories ultimately saving much time, suffering, and many resources in the process. Military spending can also buy more than weapons. Improved training may increase troops' lethality or help them practice restraint. Likewise, improved battlefield medicine and faster medical evacuations on planes, helicopters and ground transports could reduce battlefield deaths as argued by Tanisha Fazal in her recent article "War is Not Over."[14] There is undoubtedly a complex web of interconnected factors at play in this discussion.

It is possible that all of the hypotheticals above may apply to specific conflicts, but proving that to be true would explain nothing more than that conflicts exist in a complex political landscape. Despite the challenges inherent in understanding these complexities, it is still important to understand the role military expenditure plays in numerous conflicts around the globe. As a result, to build a foundation from which to better understand the role of military spending, specific and easily quantifiable variables need to be selected and examined.

The following chapters focus on examining the relationship between military expenditures and conflict deaths. Deaths related to conflict are uniquely linked to military expenditure as a function of a country's policy decisions and are also among the most specific quantifiable outcomes of conflict. Examining conflict deaths and military spending and comparing trends between them cannot explain the complexities of any individual

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[14] Tanisha M. Fazal and Paul Poast, "War is Not Over: What the Optimists Get Wrong About Conflict," *Foreign Affairs* (2019). https://www.foreignaffairs.com/articles/2019-10-15/war-not-over.

conflict, and these variables do not account for externalities like funding from third parties, secret government spending, criminal contributions to conflict, or the how spending may translate deaths into injuries. They can, however, provide a unique lens through which to discuss a conflict, a country's fiscal and military policy, and global trends in military operations and their funding. Although this study does not intend to argue that there is a causative link between military expenditures and conflict deaths, or vice versa, it is assumed that in cases where military spending and conflict deaths both trend strongly together this is unlikely pure coincidence and is likely to highlight significant events, changes in policy, or military strategy that merit examination. Similarly, unusual trends in this data with little plausible explanation in the findings below may suggest interesting cases for additional research. From the broadest perspective, this study hopes to inform the discussion around military policy by framing a fundamental outcome of military spending in terms of its impact on the loss of human lives.

The methodology in the chapters below is simple. Charts show military spending for a given country and conflict deaths in that country or region over a period of years. Generally, this data covers the thirty-year period from 1988 to 2018 due to the consistent availability of data during that time. In cases where data is available only for shorter periods, charts have been adjusted accordingly. Military spending data is represented in USD at constant rates in most cases to help readers make comparisons across years. Where correlations exist across the entire date range of a chart, they are discussed in hopes of better understanding the significance of such correlations, if any, to the country in question, the conflict or conflicts in which that county is involved, and military spending generally. In cases where statistical correlation does not exist or is weak, individual trends are

examined on an annual basis. There are slight variations in this methodology in each chapter and these variations are described in the chapter where they are relevant.

The analysis of this data rests on several assumptions. First, is that an increase in military expenditure increases a country's military capability. A budget increase that only covered a country's increased pension expenses, for example, would not increase capacity in a meaningful way over the short-term. This study assumes, however, that military budget increases are generally applied across a range of priorities and would include proportional increases to in areas such as procurements or training. This study also assumes that military spending is driven by a country's national security priorities and not by unrelated business, political, or corruption-driven motives that may otherwise impact spending trends. One advantage to looking at macro spending trends, as this study does, is that even in cases where these other factors may be present the opportunity for such factors to impact a country's entire budget is limited. Nuanced country specific study would be required, however, to completely account for the possibility of some interference in this regard.

There are a variety of patterns in the data for the case studies in the following chapters. Some countries with relatively high levels of military spending, like Taiwan, exist in regions that are quite peaceful. Though geopolitical tension may be high, their spending does not appear to cause any deaths. Other high spending countries like the U.S. or Saudi Arabia are likely responsible for many deaths. Similar discrepancies exist between low spending countries. Despite these variances, patterns do emerge between countries, conflict types, and spending levels that can all be analyzed in the hopes of informing policy and better understand the impacts of increasing or decreasing military spending in a variety of contexts.

The broadest finding across the chapters below is that there is little apparent correlation between military expenditure and conflict deaths and increased levels of spending have coincided with relatively low worldwide levels of conflict deaths. There are, however, numerous exceptions that can be found within individual countries, conflict types, and at various levels of relative spending. Chapter two discusses the delivery of weapons to countries through the U.S. Foreign Military Sales program. These deliveries often lag conflict occurring near the end of a conflict, or even after a conflict ends, thereby appearing as an unlikely driver of conflict deaths in the short term. Chapter three looks at the overall military budgets of Israel, Ethiopia, Colombia, and Sri Lanka. These cases indicate that relationships between military expenditure and conflict deaths are more easily observed in countries with lower overall military spending. This suggests that high levels of spending may mask trends otherwise visible and may allow high spending countries to engage in conflict without changing their budget priorities or otherwise boost funding for their forces.

Chapters three and four also both suggest that more reliable negative correlations between military spending and conflict deaths exist when militaries are engaged in internal conflict. As a result, it appears that countries have increased influence on military operations that occur within their borders and that military spending is a uniquely significant factor in counterinsurgency operations which have been a fixture since the Cold War proxy conflict era. This study also contributes to a broader discussion of economic inequality by highlighting several case studies that demonstrate how countries with the highest levels of military expenditure often bear the lowest burden from the impact of conflict deaths.

Chapter Two

Foreign Military Sales: Selling Conflict or Peace?

Is the United States a "merchant of death," as certain scholars and members of the media[15] would portray it? The U.S. is undoubtedly a top exporter of military hardware and training as evidenced by the volume of Foreign Military Sales (FMS), which topped 51 billion dollars in agreements and 27 billion dollars in deliveries in fiscal year 2017 alone.[16] The U.S. government's justification behind the FMS program is to "sell defense articles and services to foreign countries and international organizations when the President formally finds that to do so will strengthen the security of the U.S. and promote world peace."[17] So do these sales promote peace or do weapons equate to death as some pundits believe? What is the connection between FMS and conflict, do higher sales result in greater body counts? And if not, are there regional discrepancies that merit further exploration? This chapter seeks to begin answering these questions, particularly in light of the little research that has been done in this area.

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[15] Robert F. Drinan, "Why Is the United States the World's Merchant of Death?" *America* 171, no. 8 (September 24, 1994): 4–5. http://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=9410112491&site=ehost-live&scope=site.

[16] Defense Security Cooperation Agency, "Foreign Military Sales, Foreign Military Construction Sales and Other Security Cooperation Historical Facts as of September 30, 2017," *Fiscal Year Series* (September 30, 2017): 2. https://www.dsca.mil/sites/default/files/fiscal_year_series_-_30_september_2017.pdf.

[17] Defense Security Cooperation Agency, "Foreign Military Sales (FMS)," Accessed April 4, 2020. https://www.dsca.mil/programs/foreign-military-sales-fms.

This chapter tracks trends between FMS deliveries and conflict deaths between 1989 and 2017 and seeks explanations for years in which there are significant correlations between the two. Beginning with the look at global FMS deliveries and global conflict deaths, it is apparent that while FMS deliveries have grown substantially, conflict deaths worldwide have generally trended down. This does little to explain the relationship between the arms trade and conflict related deaths, however, and a closer look at the data suggests that there are isolated instances, usually over a period of one to three years, where FMS deliveries and conflict deaths trend upwards together. Examining world events in this context begins to reveal a pattern suggesting that FMS deliveries trail conflict rather than precede it.

After a discussion of terms, explanation of methodology, and brief review of relevant literature, this chapter is divided into three sections examining FMS delivery data for Saudi Arabia, Ukraine, and Taiwan, respectively. In each case, links between FMS deliveries and conflict deaths in that country's region are explored. In both the Saudi and Ukrainian cases, instances are uncovered which match the trend observed in the worldwide data. Where FMS deliveries and conflict deaths sharply trend upwards, deliveries often trail deaths. Taiwan offers a unique perspective as a country with high levels of spending within the FMS framework in a region that has had extremely low conflict deaths over the past 30 years. Taken together, this seems to suggest that weapons sales, and FMS deliveries in particular, serve to contain or prevent conflict.

Note on the Data

This chapter's focus is on FMS deliverables. In the context of FMS, deliverables on an annual basis are the actual weapons or military aid delivered to a country in a given

year. Deliveries contrast with agreements, which may be signed in a given year but not delivered until years later. Data for deliveries is taken directly from the U.S. Defense Security Cooperation Agency website.[18] FMS likely looks different within each country that receives it from the U.S. Some countries may buy weapons directly from the U.S. government, bundling them with U.S. contracts from their suppliers. In other cases, the U.S. may be providing training with little or no weapons or related systems included as part of the contract. In either case, the underlying goal is similar. The U.S. is attempting to bolster the militaries of foreign governments, making them more lethal in the process, either by providing weapons or training forces to use weapons or related military technologies.

The relationship to be explored is between FMS, described above, and conflict. In this context, conflict is defined as the number of deaths in a given region each year as the result of both inter and intrastate war. This data is pulled from two data sets to obtain the most accurate picture possible: Regional battle death data is from the University of Uppsala's Uppsala Conflict Data Program,[19] while the global conflict death data is pulled from The World Bank "Battle Related-Deaths"[20] dataset. The University of Uppsala data has been specifically selected for the ability to cross reference deaths by both country and year. As a result, FMS will be analyzed as it relates to the number of deaths across all conflicts in a region each year.

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[18] Defense Security Cooperation Agency, "Foreign Military Sales," (2017)..

[19] Bethany Lacina & Nils Petter Gleditsch, 2005. 'Monitoring Trends in Global Combat: A New Dataset of Battle Deaths', European Journal of Population 21(2–3): 145–166

[20] "Battle-Related Deaths (number of people)," The World Bank. Accessed March 23, 2020. https://data.worldbank.org/indicator/VC.BTL.DETH.

Although correlation does not equate to causation, attempts will be made explain any correlation or inverse correlation observed, especially in cases where the relationship appears particularly strong. Given this study's simple methodology, correlations between FMS and conflict deaths are used to facilitate qualitative discussion regarding these trends and their policy implications rather than to prove a mathematical calculation to peg conflict deaths to FMS expenditure or vice versa. The following aims to provide a broad look into this topic and provide a starting point for future research.

<div align="center">Case Study Selection</div>

This paper intends to focus on three specific cases to assess the impact of FMS on conflict. The three cases that have been selected are Saudi Arabia, Ukraine, and Taiwan. All three have been selected for their relevance to U.S. policy and each country selected has an opportunity to function as a proxy for the U.S. in countering a regional adversary: Saudi Arabia can serve as a counter to Iran, Ukraine to Russia, and Taiwan to China. Due to these regional relationships, all three countries have reason to receive FMS along with other types of U.S. military assistance including DCS. Additionally, all three countries are in distinct and disparate regions of the world, thereby allowing for a more complete assessment of the impact of FMS deliveries on regional conflict. The ultimate goal in looking at each of these cases studies, in addition to looking at the connection between FMS and conflict, is to assess the effectiveness of FMS as policy tool which, like conflict, may vary greatly from region to region depending on unique circumstances in each location.

Causes of Conflict

All three of the selected case studies must be considered in light of the larger context of peace and conflict studies. Scholars developed the peace and conflict studies discipline largely in the wake of the Second World War, with the goal of preventing future conflict through a better understanding of its causes.[21] There was an urgency brought to the arms control debate by the advent of nuclear weapons which persisted throughout the 1960s, 70s, and 80s in the context of the Cold War. Although concerns over the causes of conflict and how to stop it link back to philosophers such as Hugo Grotius and Thomas Hobbes, as Shaheen Showkat Dar describes in his 2017 review of Peace and Conflict Studies literature, "the significance of peace and conflict studies appeared to be in decline" after the fall of the Soviet Union.[22] Nuclear deterrence theorists primarily concern themselves with how to avert a nuclear exchange between the U.S. and Soviet Union and devote significant efforts to strategizing ways to reduce nuclear stockpiles and control proliferation.[23]

As a signatory of the "Treaty on the Non-Proliferation of Nuclear Weapons," the U.S. does not export nuclear weapons within the FMS or any other military sales program.[24] Despite this, nuclear theorists share arms control concerns with those who look at conventional arms. Underlying these concerns is the idea that these weapons could lead

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[21] Shaheen Showkat Dar, "Disciplinary Evolution of Peace and Conflict Studies: An Overview," *International Journal on World Peace* 34, no. 1 (March 2017): 65. http://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=121490475&site=ehost-live&scope=site.
[22] Ibid.
[23] Tatiana Anichkina Anna Péczeli, and Nickolas Roth, "The Future of US–Russian Nuclear Deterrence and Arms Control," *Bulletin of the Atomic Scientists* 73, no. 4 (July 2017): 271. doi:10.1080/00963402.2017.1338046.
[24] United Nations Office for Disarmament Affairs, "Treaty on the Non-Proliferation of Nuclear Weapons," (July 1, 1968) https://www.un.org/disarmament/wmd/nuclear/npt/.

to an increase in conflict and death. Although the potential is certainly there, nuclear weapons have not caused any deaths since World War Two.

Nuclear Deterrence scholars' concerns are often existential. They worry less about whether weapons are likely to cause or avert conflict over the short term, and more about these conflicts' potential to culminate in a devastating nuclear exchange. Articles such as Tatiana Anichkina's "The Future of US–Russian Nuclear Deterrence and Arms Control"[25] and Ariel Bachar's "Jcpoa: Implications and Effects on Our Foreign Military Sales Program" criticize the export of both nuclear and conventional arms. Bachar specifically criticizes FMS in light of the Arms Export Control Act (AECA) and includes recommendations to strengthen the AECA that would apply to both FMS and conventional weapons sales. Both authors recommend the curtailment of programs like FMS. Their argument to limit arms exports is based upon the high-risk nature of nuclear weapons, however, rather than a nuanced look at the impacts of conventional weapons proliferation.

The Cold War trend of increasing global trade in conventional arms has persisted and locks the U.S. and Russia into ever increasing sales.[26] Criticism of these sales often focuses on the potential effects of the expansive sale and distribution of weapons. Critics operate under the assumption that weapons are a natural catalyst for violence, but this assertion has been little tested. One study, which discusses the link between U.S. weapons

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[25] See note 23.

[26] Stockholm International Peace Research Institute, "Global Share of Major Arms Exports by the 10 Largest Exporters, 2015-2019," *SIPRI Arms Transfers Database* (March 2020). https://www.sipri.org/research/armament-and-disarmament/arms-and-military-expenditure/international-arms-transfers.

sales and political violence, found "the availability of weapons is rarely discussed as a plausible determinant of war."[27]

In his introduction to the 1992 *Arms Control and Confidence Building in the Middle East*, editor Alan Platt writes, "no causal relationship between inventories of arms and the likelihood of war exists."[28] Although Platt does little to explain this statement, if true, it would lay to rest concerns that arms sales and the resultant increase in weapons would lead to an increase in conflict. Strangely, Platt goes on to define arms control as "'any measure that reduces the likelihood of war as an instrument of policy or that limits the destructiveness and duration of war should it break out.'"[29] This is a broad definition of arms control that seems to contain a tacit acknowledgement that a lack of arms control, which would presumably lead to more weapons in the region, is likely to increase the likelihood of war, and its destructiveness, should war occur. This seems to be at odds with his earlier statement that no causal relationship exists between arms and war. Platt's argument illuminates a philosophical paradox inherent in the foundation of the arms control debate. To what extent can arms be separated from armed conflict? If combatants forced to give up their arms will simply pick up rocks and continue to fight, arms may be tangential to conflict. If this were truly the case, however, the upwards spiral of weapons development and proliferation seen during the cold would seem an unlikely political reality.

Scholarship is split between the positions that complicate Platt's introduction above. Former Israeli Defense Forces Chief of Staff, Mordechai Gur summarizes a typical

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[27] Arvind Magesan and Eik Leong Swee, "Out of the Ashes, Into the Fire: The consequences of U.S. weapons sales for political violence" *European Economic Review* 107 (August 2018): 135. doi: https://doi.org/10.1016/j.euroecorev.2018.05.003.

[28] Alan Platt, *Arms Control and Confidence Building in the Middle East,* (Washington: United States Institute of Peace Press, 1992): 2.

[29] Ibid.

deterrence argument by arguing that "a balance of military terror or fear"[30] is needed to promote peace. This rationale can be used to argue both for arms control (reduction) or additional procurement and sales. In either case, the premise is that maintaining a balance between adversaries reduces their incentives to engage in conflict.

Sylvain Chassange and Gerard Padro i Miquel build on this concept in their article, "Conflict and Deterrence under Strategic Risk." They conclude that in an uncertain strategic environment, increased weapons stockpiles can have a destabilizing effect but they also argue that an imbalance between adversaries' relative military strength can be a boon for peace as long as the weaker power maintains "sufficient weapon stocks to dissuade the stronger party from unilateral attacks."[31] This is consistent with the 1980 scholarship of Richard K. Betts who challenged arms control wisdom of the day and ultimately concluded that arms sales should be considered on a case by case basis and with due consideration of a multitude of factors rather than supported or condemned outright.[32] A similarly neutral view on arms sales is expressed by Andrew J. Pierre in his 2014 *The Global Politics of Arms Sales.*[33]

These ideas have been adopted by theorists of peacekeeping operations as well. The 2019 article "Assessment of Peace Operations" describes the "short term missions" of peace operations, including, "disarmament…. Measured by among other things the volume

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[30] Mordechai Gur, "Destabilizing Elements of the Middle East Military Balance" in *Arms Control in the Middle East,* Dore Gold, ed. (Jerusalem: The Jerusalem Post, 1990): 9.

[31] Sylvain Chassang and Gerard Padro i Miquel, "Conflict and Deterrence under Strategic Risk," *Quarterly Journal of Economics* 125, no. 4 (November 2010): 1846. doi: https://doi.org/10.1162/qjec.2010.125.4.1821.

[32] Richard K. Betts, "The Tragicomedy of Arms Trade Control," *International Security* 5, no. 1 (1980): 109-110. https://www.muse.jhu.edu/article/446485.

[33] Andrew J. Pierre, *The Global Politics of Arms Sales*, Course Book ed., Princeton: Princeton University Press, 2014. muse.jhu.edu/book/33580.

of weapons collected."[34] This suggests a link to the position established by Platt in attributing some increased risk of conflict to weapon stockpiles without explicitly declaring weapons as a causative factor.

Other scholars have staked out unequivocal positions on arms sales. These scholars tend to be contemporary, narrowly focused, and their findings suggest a link between arms sales, conflict, and violence of various types. The 2015 "Bases, Bullets, and Ballots" focused specifically on paramilitary violence within Colombia and was able to demonstrate a link between U.S. military aid and violence within the country.[35] A related finding is presented in the 2018 "Out of the Ashes, Into the Fire"[36] which looks at Direct Commercial Sales (DCS) of U.S. military technology. The authors conclude that although DCS reduces internal repression in receiving countries, it increases the likelihood of civil war, thereby clearly demonstrating a link between DCS and conflict. These articles are not completely without historical precedent, however, as evidenced by Susan G. Sample's 1997 article linking arms races to conflict. Sample builds her argument on research from 1979.[37] Jean Klein's 1983 article "Arms Sales, Development, Disarmament" also argues for a reduction in arms sales from the U.S. and Soviet Union, both of which Klein blames for stoking conflict "on the outskirts of the industrialized world."[38]

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[34] Paul F. Diehl and Daniel Druckman, "Assessment of Peace Operations," in The Palgrave Encyclopedia of Peace and Conflict Studies, eds. Oliver Richmond and Gëzim Visoka, (Palgrave Macmillan, 2019). https://doi-org.proxy1.library.jhu.edu/10.1007/978-3-030-11795-5.
[35] Oeindrila Dube and Suresh Naidu, "Bases, Bullets, and Ballots: The Effect of US Military Aid on Political Conflict in Colombia," *Journal of Politics* 77, no. 1 (January 2015): 249–67. doi:10.1086/679021.
[36] Magesan, 133-156.
[37] Susan G. Sample, "Arms Races and Dispute Escalation: Resolving the Debate," *Journal of Peace Research* 34, no. 1 (1997): 7-22. Accessed March 11, 2020. www.jstor.org/stable/424827.
[38] Jean Klein, "Arms Sales, Development, Disarmament," *Bulletin of Peace Proposals* 14, no. 2 (1983): 157. Accessed February 12, 2020. www.jstor.org/stable/44480999.

So, what is the cause of conflict? Is it purely a matter of nature as Thomas Hobbes wrote in 1651, "the condition of Man, is a condition of Warre"?[39] The verdict, it seems, is still out over 370 years later. Scholars often discuss arms control within the larger debates concerning the avoidance of conflict, but few attempt to link arms and conflict together as related variables. Nuclear deterrence theorists avoid claims regarding weapons as causative factors for conflict violence but advocate for their reduction or elimination due to the high risk their use poses. Scholars like Platt and Betts discuss the risks of conventional armaments but similarly refrain from describing weapons as causative variables for assessing conflict.

Recent scholarship has re-engaged with a neglected thread of argument from the 1970s and 80s in order to bend the conversation around weapons, and the related trade, in a direction that links them much more closely to conflict. The debate is sure to be ongoing, assuming the worst fears of nuclear deterrence theorists fail to be realized. Despite certain theorists discounting of arms as a direct cause of conflict, understanding how these variables interact is a key issue within the peace and conflict studies discipline and one that deserves continued attention.
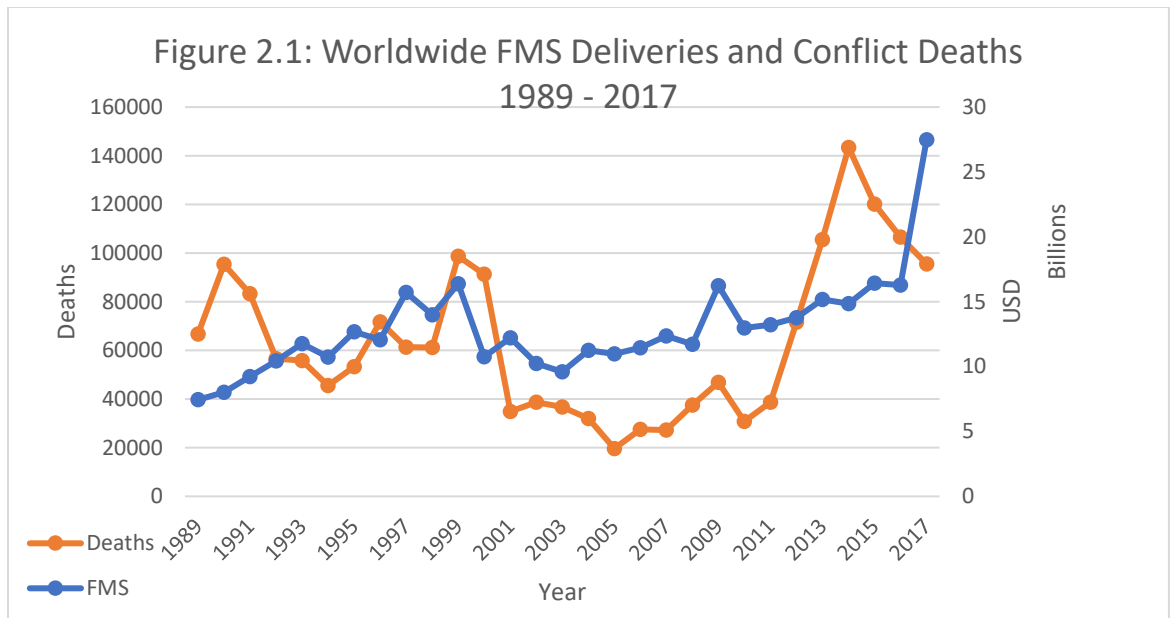
<center>Global Data and Related Cases</center>

Global data on conflict tells a nuanced tale. Figure 2.1 shows that worldwide deaths from armed conflict only weakly correlate with changes in FMS.[40]

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[39] Thomas Hobbes, *Leviathan* (Auckland: The Floating Press, 2009), 232.
[40] Data in Figure 2.1 has a correlation coefficient of 0.38.

Figure 2.1: Worldwide FMS Deliveries and Conflict Deaths 1989 - 2017

Author compilation of data from: "Foreign Military Sales,Foreign Military Construction Sales and Other Security Cooperation Historical Facts As of September 30, 2017"*Fiscal Year Series.* Defense Security Cooperation Agency; and Lacina, Bethany & Nils Petter Gleditsch, 2005. 'Monitoring Trends in Global Combat: A New Dataset of Battle Deaths', European Journal of Population 21(2–3): 145–166.

While this may not be the case regionally, it does immediately call into question any argument that links weapon sales to increases in deaths. From 2003 until 2009, FMS deliveries slowly climbed from 10 billion dollars per year to 16 billion dollars even as deaths varied between 20,000 and 40,000 per year, relative lows for the period of analysis. A spike in deaths between 2011 and 2014, which can be largely attributed to the war in Syria, coincided with only modest increases in FMS deliveries that appear well within annual norms. It could be argued that a glut of weapons accumulated over the preceding years contributed to the conflict deaths between 2011 and 2014, but as is shown in the following case studies, this does not match the buying patterns of individual countries. Even as sales spiked to unprecedented levels in 2017, conflict deaths dropped to levels not seen for almost two decades. Even though no overarching pattern emerges during this 28 year look at global FMS deliveries and conflict deaths, there are some observations that merit further attention.

The first correlation apparent in Figure 2.1 occurs around 1999. It must be noted that there is a significant spike in FMS deliveries between 1997 and 1999. In 1999 and 2000, a dramatic increase in deaths can also be noted. The most significant number of conflict deaths worldwide during this period was the result of the Eritrean-Ethiopian War (1999-2000), which accounts for over half of the worldwide conflict deaths during this period.[41] This period also saw significant conflict deaths with the outbreak of the Second Chechen War and war between India and Pakistan.

In all three cases, anomalous FMS delivery patterns can be observed. Eritrea received its largest ever delivery, amounting to about 1.4 million dollars, in 1997.[42] Ethiopia also received an unusually large delivery in 2000, as part of an agreement that appears to have been signed in 1998.[43] It is possible these increases in FMS deliveries were the result of Eritrea anticipating hostilities and Ethiopia hoping to gain the edge in an ongoing conflict.

In the case of the Chechen War, neighboring Georgia received its first ever delivery of FMS in 1999 and a significant increase in 2000.[44] Georgia's first FMS agreement with the U.S. had been inked just the year prior. Again, while this may pure coincidence, it is also possible that concerns over the nearby conflict between Russia and Chechen rebels encouraged the newly independent Georgia to take proactive measures to arm itself.

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[41] Gleditsch, Nils Petter, Peter Wallensteen, Mikael Eriksson, Margareta Sollenberg, and Håvard Strand (2002) Armed Conflict 1946-2001: A New Dataset. Journal of Peace Research 39(5). And Therese Pettersson et al., "Organized violence, 1989-2018 and peace agreements," *Journal of Peace Research* 56(4).
[42] Defense Security Cooperation Agency, "Foreign Military Sales, Foreign Military Construction Sales and Other Security Cooperation Historical Facts as of September 30, 2017," 835.
[43] Ibid, 840.
[44] Ibid, 491.

The conflict between India and Pakistan in 1999 bucks the trend set by the two examples above, but only because of the very specific political considerations in the region. Both India and Pakistan had received some amount of FMS from the U.S. in the years leading up to 1999. India, however, tested a nuclear device in 1998,[45] and subsequently suffered a complete blackout of FMS from 1999 until 2001, with FMS resuming in 2002.[46] Pakistan suffered a similar years-long blackout of FMS during the war with military cooperation having been halted by the U.S. in 1990, because of the Pakistani nuclear program.[47]

The India-Pakistan case highlights the political nature of FMS, as both countries found themselves cut off from the U.S. weapons. Certainly, both countries looked elsewhere for weapons during this conflict. Imports from Russia would be a likely source of supply along with local production. In 1998, despite mild criticism of India's Pokhran II nuclear test, Russia signaled a desire for increased cooperation with India on both commercial nuclear energy and military technology.[48] It is unclear what impact, if any, the lack of U.S. weapons had on this conflict. Both countries likely had remaining supplies from previous agreements, and despite the lack of FMS throughout, casualties were still high compared the rest of world during those years.

A similar but more modest bump in both FMS deliveries and conflict deaths can be observed in 2009. Once again, the data shows several hotspots for conflict deaths in 2009. In this case, the two hotspots are the border between Afghanistan and Pakistan, and Sri

[45] K. Alan Kronstadt and Shayerah I. Akhtar, "India-U.S. Relations: Issues for Congress," (Washington: Congressional Research Service, 2017): 15.

[46] Defense Security Cooperation Agency (2017): 265-266.

[47] Richard F. Grimmett, "U.S. Arms Sales to Pakistan," (Washington: Congressional Research Service, 2009): 1-2.

[48] Petr V. Topychkanov, "US-Soviet/Russian Dialogue on the Nuclear Weapons Programme of India," *Strategic Analysis* 42 no. 3 (2018): 254.

Lanka, which was in the final stage of a civil war against Tamil rebels. Unfortunately, the high number of deaths in Afghanistan observed in 2009, was not an anomaly in that region at the time. Interestingly, the country hit a seven-year low in FMS deliveries that year and received deliveries valued at only 1.8 million dollars.[49] This negative correlation between Afghani military spending and conflict deaths will be discussed in detail in chapter four.

Pakistan saw a surge in FMS deliveries the year after Afghanistan's surge of violence in the 2010. Many of Pakistan's 2010 deliveries appear to have been inked in 2006.[50] This suggests that although the deliveries may have been related to the ongoing war against the Taliban, it is unlikely they were specifically influenced by any activity in 2009.

Sri Lanka is more instructive example because of the isolated nature of the conflict against the Tamils. An extreme surge in violence occurs in 2009 followed by a spike in spending in 2010 while the country's death toll drops to zero. Unlike Afghanistan, which had high levels of conflict deaths for years, Sri Lanka had just over 2,000 deaths associated with their civil war in 2006,

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[49] Defense Security Cooperation Agency, "Foreign Military Sales, Foreign Military Construction Sales and Other Security Cooperation Historical Facts as of September 30, 2017," 234.
[50] Ibid, 330.
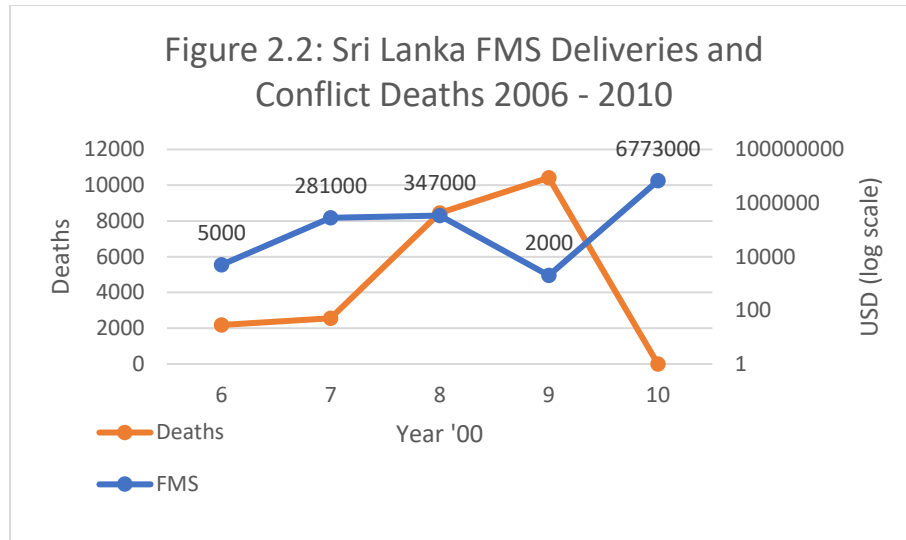
Figure 2.2: Sri Lanka FMS Deliveries and Conflict Deaths 2006 - 2010

Author compilation of data from: "Foreign Military Sales,Foreign Military Construction Sales and Other Security Cooperation Historical Facts As of September 30, 2017"*Fiscal Year Series.* Defense Security Cooperation Agency; and Lacina, Bethany & Nils Petter Gleditsch, "Monitoring Trends in Global Combat: A New Dataset of Battle Deaths," European Journal of Population 21(2–3): 145–166.

followed by a massive surge, visible in Figure 2.2. In 2008, as the government made a push to end the war, deaths spiked. With the war over, no deaths were reported in 2010.[51] Sri Lanka had only once received over 1 million dollars in FMS deliveries until receiving over 6 million dollars' worth of deliveries in 2010. Most the agreements for these deliveries were signed in 2003 and 2004,[52] shortly after the Tamil rebels called off peace talks.[53] As a result, it seems likely that Sri Lanka did attempt boost their arsenal when their civil war appeared likely to continue but received the weapons after the conflict ended.

It is clear from these examples that the data does not show a general correlation between FMS deliveries and conflict deaths. With countries like Eritrea and Ethiopia, where FMS agreements and deliveries occurred within a short time frame and in the context

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[51] Bethany Lacina & Nils Petter Gleditsch, "Monitoring Trends in Global Combat: A New Dataset of Battle Deaths," European Journal of Population 21 no. 2-3 (2005): 145–166.
[52] Defense Security Cooperation Agency, "Foreign Military Sales, Foreign Military Construction Sales and Other Security Cooperation Historical Facts as of September 30, 2017," 354.
[53] "Tamil Tigers call off peace talks," (BBC News Online, April 21, 2003) http://news.bbc.co.uk/2/hi/south_asia/2964349.stm.

of a violent war, FMS and conflict deaths can be anecdotally linked. Similarly, surges in arming can be seen in countries with close proximity to conflict such as with Georgia and Pakistan. The Sri Lankan case shows that while countries may increase their arms purchases due to conflict, they are often capable of waging bloody wars without a massive infusion of U.S. weapons.

With the exception of the India-Pakistan case, every country mentioned above saw unusually high numbers of FMS deliveries either before or after years in which high number of conflict deaths occurred in their region. Although the data does not seem to suggest U.S. weapons were responsible for increases in deaths, countries clearly go shopping for weapons when death is near. These purchases may be made in preparation for military campaigns, to deter conflict or prevent it from spilling in from neighboring countries, or even in an attempt to end conflict or restock after a war ends.

Saudi Arabia

FMS to the Kingdom of Saudi Arabia makes sense in light of the contentious relationship between the U.S. and Iran.[54] Iran stands as the primary state adversary of the U.S. in a region where the U.S. has significant interest in oil exports. Saudi Arabia is a key ally in countering Iranian influence in proxy wars in Syria and Yemen, although allegations of human rights abuses call into question the validity of supporting Saudi Arabia with weapons.[55] Nonetheless, Saudi Arabia has been a significant recipient of FMS, with several instances where it received more than 1 billion dollars in U.S. arms in a year. For example, in 2017 the Kingdom received over 5 billion dollars in FMS which represents

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[54] Christopher M. Blanchard, "Saudi Arabia: Background and U.S. Relations" (Washington: Congressional Research Service, February 18, 2020).
[55] Ibid, 36.

only a small fraction of the current U.S.-Saudi agreements. [56] Figure 2.3 shows Saudi

Arabia's FMS deliveries and conflict deaths in the country's region between 1989 and

2017.
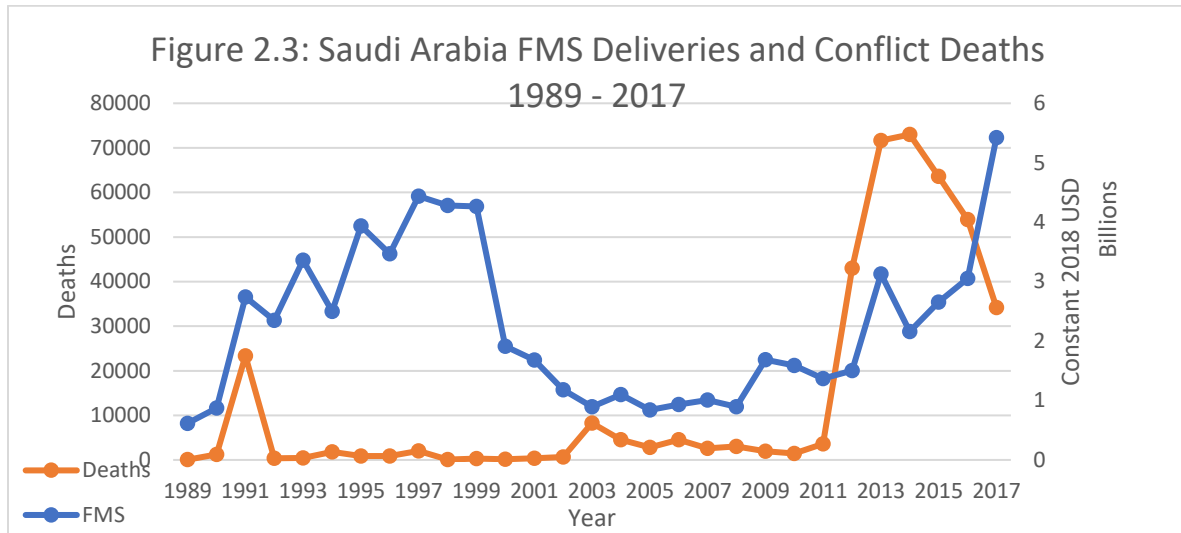
Figure 2.3: Saudi Arabia FMS Deliveries and Conflict Deaths 1989 - 2017

Author compilation of data from: "Foreign Military Sales,Foreign Military Construction Sales and Other Security Cooperation Historical Facts As of September 30, 2017"*Fiscal Year Series.* Defense Security Cooperation Agency; and Lacina, Bethany & Nils Petter Gleditsch, 2005. 'Monitoring Trends in Global Combat: A New Dataset of Battle Deaths', European Journal of Population 21(2–3): 145–166.

As with the global look at FMS and conflict deaths described above, no clear trend emerges

from Figure 2.3. As in the cases described above, however, key spikes in the two graphs

highlight important correlations. The first spike occurs in 1991 corresponds with the Gulf

War. At that time, Saudi Arabia allied with the U.S. to fight against Iraq and a clear link

exists between U.S. investment and conflict deaths, which account for the majority of the

deaths in the dataset for 1991. The direct relationship between FMS to Saudi Arabia and

conflict deaths in Iraq is hard to parse given the large coalition that opposed Iraq, but the

successive trend is the significant story here. Although the Gulf War was short lived, it

started a trend of FMS investment in Saudi Arabia that saw significant deliveries for the

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[56] Ibid.

rest of the 1990s. This demonstrates the U.S. policy of supporting regional allies in the wake of the war as well as Saudi Arabia's commitment to arming with U.S. weapons.

After the Gulf War, conflict related deaths in the region dropped below 10,000 per year after the Gulf war and remained relatively low for almost two decades. Starting in 2000, Saudi FMS deliveries were reduced and stayed relatively low until 2013, when another spike in both FMS deliveries and conflict deaths occurred. Another spike in conflict related deaths occurred in 2013 because of the Syrian civil war, which began in 2011. U.S.-Saudi cooperation in backing Syrian rebels provides context for these increases as both countries sought to limit the Iran backed regime.[57] While U.S. weapons in the hands of Saudis are not the primary driver of deaths in Syria, Saudi Arabia is certainly amassing arms in light of this escalating conflict in the hopes of countering Iran's influence across the gulf region.

The trend observed in the Saudi data below likens Saudi engagement with FMS to the Georgia case described earlier. It is unlikely that Saudi FMS purchases, or Saudi hostility in any context, are a primary driver of conflict deaths in the region during this period. Saudi Arabia has taken steps to arm itself, however, during periods of increased conflict and this can be seen in periods where Saudi purchases using the FMS program increased during and immediately after regional conflicts. As such, there does seem to be a relationship between FMS deliveries and conflict deaths, but it does not appear causative and generally reflects both U.S. and Saudi foreign policy positions in light of regional conflicts.

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[57] Christopher M. Blanchard (2020).

In 1991, Ukraine gained its independence with the fall of the Soviet Union. It received its first FMS delivery in 2000. Since that time, Ukrainian expenditures on FMS have fluctuated wildly. It is worth noting that Ukraine does have some local weapons production capacity and is also a notable arms exporter, including exports to Russia prior to 2014.[58] Similar to nearby Georgia, Ukraine accepted its first FMS delivery in the immediate aftermath of the Second Chechen War. As shown in Figure 2.4, this began a period in which Ukraine has engaged with the FMS program at some level in every year since.
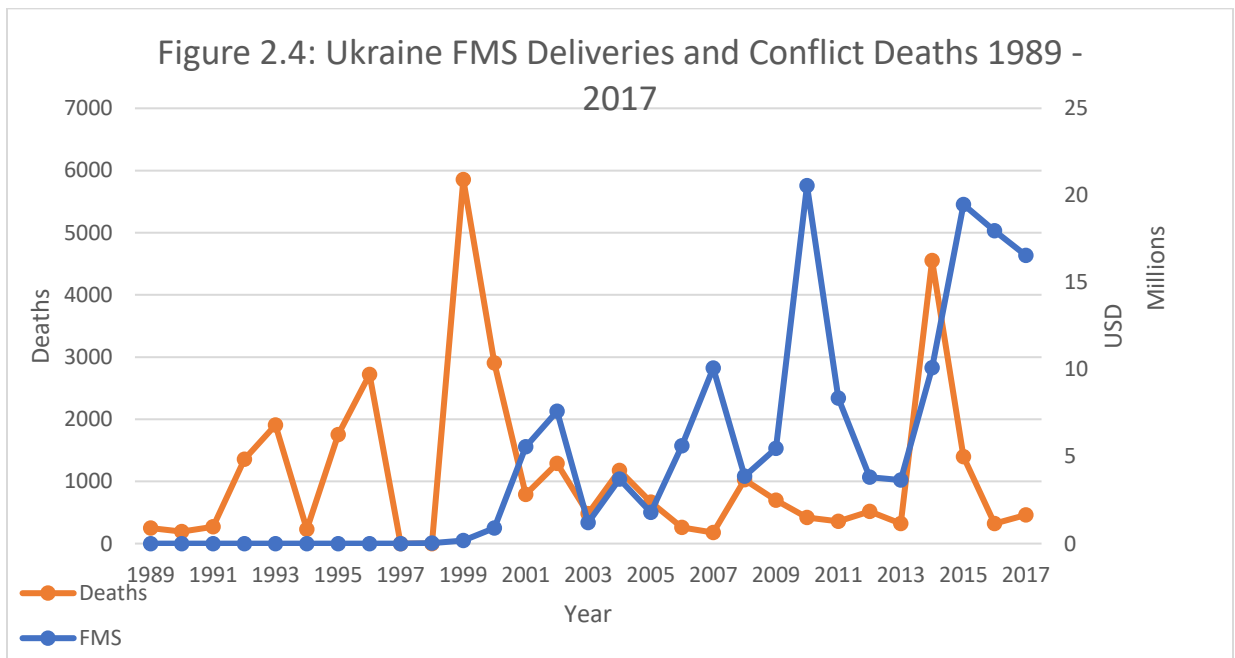
Figure 2.4: Ukraine FMS Deliveries and Conflict Deaths 1989 - 2017

Author compilation of data from: "Foreign Military Sales,Foreign Military Construction Sales and Other Security Cooperation Historical Facts As of September 30, 2017"*Fiscal Year Series.* Defense Security Cooperation Agency; and Lacina, Bethany & Nils Petter Gleditsch, 2005. 'Monitoring Trends in Global Combat: A New Dataset of Battle Deaths', European Journal of Population 21(2–3): 145–166.

[58] Pieter D. Wezeman et al., "Trends in International Arms Transfers, 2018" (Solna: Stockholm International Peace Research Institute, 2019): 8, 10. https://www.sipri.org/sites/default/files/2019-03/fs_1903_at_2018.pdf.

It is tempting to view Ukraine's FMS deliveries beginning in 2000 as a reaction to Russian hostilities on their Southern border. Given that Ukraine exported weapons to Russia until 2014, however, any concerns about Russian activity seem to be a poor explanation for Ukraine's engagement with the FMS program. Differences in Ukrainian and U.S. weapons production must be considered, however, as weapons obtained from the U.S. are generally high-tech countermeasures that would uniquely limit Russian capabilities in an invasion, such as javelin anti-tank missiles.[59] Ukrainian weapons production and exports to Russia would do little to tip the balance in favor of either side but would serve to boost Ukraine's treasury.

In 2014, the narrative changes with the Russian annexation of Crimea. A trend emerges in Figure 2.4 and most of the regional conflict deaths in 2014 occurred in Ukraine as the result of Russian hostility. Not surprisingly, FMS deliveries to Ukraine spike in 2014 and increase in 2015, likely a result of continued Russian hostility. Much like FMS engagement with Saudi Arabia in the wake of the Gulf War, the U.S. and Ukraine share policy motives for increasing sales in the face of Russian aggression. It is also clear in this case that conflict deaths drove FMS expenditures rather than FMS expenditures driving combat deaths since the majority of conflict deaths in 2014 were on the Ukrainian side. If FMS deliveries had the desired deterrent effect in this conflict and played a part in curbing Russian hostility, it is possible to argue that the deliveries made to Ukraine in 2014 and 2015 may have limited conflict and reduced deaths.

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[59] Defense Security Cooperation Agency, "Ukraine – Javelin Missiles and Command Launch Units," (October 3, 2019) https://www.dsca.mil/major-arms-sales/ukraine-javelin-missiles-and-command-launch-units-0.

Despite Ukraine's erratic FMS spending patterns, the link between FMS and conflict deaths in 2014 provides a clear, and easily explained correlation that fits with patterns like those observed in Saudi Arabia. Having most of the conflict deaths in the region occur on the Ukrainian side acts as a control allowing for the elimination of any concern FMS deliveries that year were used to cause conflict deaths. The pattern of deliveries coming as a reaction to conflict fits with previously examined examples including Ethiopia, Georgia, and Saudi Arabia during both the 1991 Gulf War and Syrian Civil War. The pattern that begins to emerge is one of FMS deliveries as the product of regional conflict rather than as a driver.

Taiwan

Southeast Asia, which for this case study, includes Taiwan, China, Vietnam, The Philippines, North and South Korea, and Japan, generally has few conflict deaths. It is worth noting that obtaining accurate data about conflict deaths in a country like North Korea is quite difficult, particularly if such deaths were the result of civil unrest. Similar problems exist for China. Although it is tempting to look for correlations in the data presented in Figure 2.5 below, it should be noted that almost all the conflict deaths in this figure occurred in the Philippines and were the result of civil unrest. Filipino conflict is unlikely to be a significant driver of Taiwanese defense spending, however, and given the low level of conflict deaths overall, this simply is not a compelling explanation for Taiwanese engagement with the FMS program.
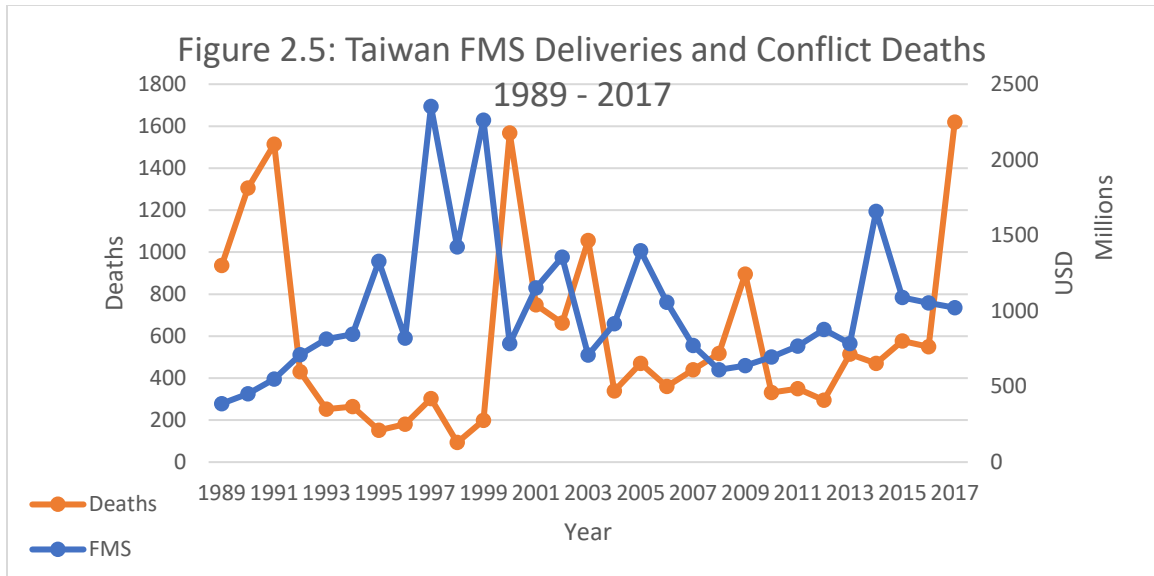
Figure 2.5: Taiwan FMS Deliveries and Conflict Deaths 1989 - 2017

Author compilation of data from: "Foreign Military Sales,Foreign Military Construction Sales and Other Security Cooperation Historical Facts As of September 30, 2017"*Fiscal Year Series.* Defense Security Cooperation Agency; and Lacina, Bethany & Nils Petter Gleditsch, 2005. 'Monitoring Trends in Global Combat: A New Dataset of Battle Deaths', European Journal of Population 21(2–3): 145–166.

Taiwan has been a reliable and relatively high spender on FMS acquisitions, however, with more than 1 billion dollars in purchases in 11 separate years since 1989. Given Taiwan's contentious relationship with China, its desire to obtain large quantities of technologically sophisticated weapons should come as no surprise. The nature of a war with China, if one were to break out, can also help explain Taiwan's high expenditure relative to a country like Ukraine. While Ukraine might be able to resist Russian aggression with guerilla or insurgent forces armed only with small arms, a war with China on the small island of Taiwan would certainly involve sea and air components. This requires significant numbers of expensive planes and ships. Not surprisingly, this has been the focus of many of Taiwan's acquisitions.[60]

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[60] Andrew Jacobs, "Arms Sales Draws Angry, but Familiar, Reaction," (New York Times Online, September 22, 2011) https://www.nytimes.com/2011/09/23/world/asia/china-expresses-anger-over-latest-us-arms-sales-to-taiwan.html.

Although there is no plausible link between conflict deaths and FMS where Taiwan is concerned, Taiwan's engagement with the FMS program still fits into the context of the previously discussed cases. As with the cases above where sales seem to function more often as deterrence for existing conflict rather than as a cause for additional violence, FMS to Taiwan act to deter the possibility of Chinese aggression. Just as the U.S. acts to counter Iran in the Gulf region due to oil interests, the South China Sea offers crucial shipping lanes for global trade. Rather than see China cement control of the region, the U.S. benefits from aiding those who oppose Chinese control of these trade routes. Taiwan, of course, needs military aid to protect its sovereignty from mainland China, and clearly shows its willingness to pay for that privilege. Although not an official U.S. policy position, the U.S. commitment to what it describes as Taiwan's "self-defense" seem to be a tacit effort to dissuade China from launching any hostile military action in the region.[61] These sales to Taiwan serve to deter conflict, not cause it.

Conclusion

At this level of analysis, there is no observable, direct correlation between FMS deliveries and conflict deaths. A lack of such correlation places arguments that suggest high levels of weapons are likely to be related to increases in bloody conflicts on shaky ground. In places like Taiwan, billions of dollars in weapons spending have not amounted to any notable changes in conflict deaths. Conversely, countries like Ethiopia, have seen significant numbers of conflict deaths even before an influx of weapons, the receipt of which would still put the Ethiopian arsenal well below that of countries like Taiwan.

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[61] Susan V. Lawrence and Wayne M. Morrison, "Taiwan: Issues for Congress," (Washington: Congressional Research Service, October 30, 2017): 29. https://fas.org/sgp/crs/row/R44996.pdf.

Examining the data provided above does offer some interesting insights into how countries utilize the FMS program and its relation to conflict. In the data above, there were six instances where significant increases in conflict deaths and FMS deliveries corresponded. Two in the global data, two for Saudi Arabia, and two for the Ukraine. If these six instances have anything in common, it is that the FMS deliveries almost certainly did not play a major role in the conflict deaths. In some cases, this can be determined because of the timing of the deliveries relative to deaths and, in others, it is because we can conclusively rule out the FMS recipient as the hostile actor. The latter applies Ukraine in 2014, which we know did not kill its own people with weapons received that year.[62] The much more plausible explanation in almost every case is that countries tend to build up their military forces and engage with programs such as FMS as the result of conflict in their region. Some countries, like Eritrea and Taiwan, manage to do this preemptively but often conflict occurs, people die, and then countries appear encouraged to obtain more weapons as a result.

Whether a country engages with the FMS program as a reaction to conflict in their region or as deterrent to conflict, as Taiwan does, FMS may still contribute to conflict deaths. One possible example in the cases above is Saudi Arabia. Although it is clear that Saudi Arabia significantly boosted its arsenal with U.S. weapons in the wake of the Gulf War, this may have put the Saudis in a position to involve themselves in the Syrian Civil War years later. An examination of more recent data would likely put this in even starker terms with the war in Yemen. Saudi conduct there has been one of the major points of criticism against the FMS program in recent years.[63] Although this study focused on FMS

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[62] Lacina, Bethany and Nils Petter Gleditsch, "Monitoring Trends in Global Combat," (2005).
[63] Richard F. Grimmett (2009): 1-2.

and conflict deaths on a year-to-year basis, one of the challenges with arms transfers is a loss of accountability once these articles are in foreign hands. This challenge only grows with time.

There are a number of limitations in this chapter which must be discussed both in terms of methodology and scope. On the issue of methodology, the simplicity stands out as the most glaring handicap. It should be noted that the data presented above serves to spark a qualitative discussion surrounding the relationship between FMS and conflict deaths rather than to present definitive data linking or dissociating the two. More rigorous economic models capable of accounting for inflation, the size of FMS recipient economies, and pegging the relationship between the two variables at specific values would serve to make quantitative conclusions on the subject. As noted at the outset, at least one study has produced results by interpreting DCS and civil conflict through economic modelling. Quantitative models that could control for additional variables, such as a country's budget constraints or spending before and after conflict would also provide important insight.

Expanding the scope of data would also help make stronger conclusions in future studies. Chapter three examines several countries' entire military budgets and additional studies examining macro data would undoubtedly produce connections that have been overlooked here. Future studies should also consider how conflict influences weapons imports across entire regions and consider comparative analysis of high spending and low spending regions. Additional analysis of high spending, low conflict regions and low spending, high conflict regions would likely yield the most fruitful results for those interested in policy implications.

Chapter Three

Spend to Kill: Trends in Military Spending and Conflict Deaths

Where the previous chapter specifically examined the links between Foreign Military Sales and conflict deaths, this chapter seeks to explore the relationship between conflict deaths and countries' overall levels of military spending. In other words, do high levels of military spending lead to high levels of conflict deaths? The Foreign Military Sales program did not appear to be linked to with increases in conflict deaths but a broader look at a country's entire military budget is likely to provide more insight into how spending patterns may be connected to conflict violence. In a world of ever-increasing military spending,[64] such insight should be of significance to military and budgetary policy makers in almost every country.

Military spending is among a small and unique group of public expenditures, including prisons and police, where government money can be used to kill. Obviously, military spending can do much more than just kill, and many would make the argument

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[64] Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," (Stockholm: SIPRI, 2020) https://www.sipri.org/databases/milex.

that high levels of military expenditure may serve to reduce the risk of conflict overall.[65]

Those arguing this position would maintain that high military spending neither causes conflict nor increases conflict violence. None the-less, government funded killing, even if only funding the capability to do so, is of scholarly interest based on its unique nature.

This chapter begins with a literature review discussing recent and relatively broad scholarship that highlights the importance of economic factors in conflicts as well as the relatively sparse literature specifically linking spending to conflict violence. It continues with a look at global military expenditure data and global conflict deaths over the past 30 years. This section also includes a discussion of spending and conflict data from Rwanda, which presents itself as a significant outlier in the data due to the high number of deaths attributed to genocide in that country. The succeeding sections present four cases along with the relevant data and discussion. Ethiopia and Israel are grouped together as countries that face primarily external threats, while Colombia and Sri Lanka are grouped together because their primary security concern is internal insurgency. While these countries have been selected based on the unique security threats they face, these four countries also each occupy a distinct geographic region with unique security concerns, and all have data available for the years in question. The chapter concludes with a discussion of avenues for further exploration.

The Causes of Conflict and Their Economic Nexus

Numerous scholars make the case that economic factors are significant in conflict. Few, however, argue that military spending directly drives violence. In this regard, the

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[65] Michael E. O'Hanlon and Frank A. Rose, "Democratic presidential candidates shouldn't give into the demand that they slash defense spending," *Order from Chaos* (Brookings, June 17, 2019). https://www.brookings.edu/blog/order-from-chaos/2019/06/17/democratic-presidential-candidates-shouldnt-give-in-to-demand-they-slash-defense-spending/.

work of Carrie A. Lee stands out below as the only author to specifically link increased spending to increased violence. There are related scholars, however, that do suggest that money is related to causing both war and peace. Lee and these scholars, collectively referred to here as "Financial Determinists," argue that direct links between money and conflict do exist. The second group of scholars, or "Resource Theorists," argue that struggle over resources such as oil and land are conflict's primary drivers. The final branch of scholarship discussed are those who focus primarily on poverty. All three schools of thought, despite their differences, make the case that economic factors are closely connected to conflict. As a result, these scholars collectively further the case for exploring the links between money and conflict in more detail.

Financial Determinists

There are scholars who have staked out somewhat definitive positions relating money to conflict. The most distinctive camps within this scholarship argue a direct connection between money and conflict with one camp arguing that money leads to conflict and escalating violence while the other argues that money ends conflict and leads to peace. Even among writers who agree regarding the impact of money on conflict, various mechanisms explaining this impact are offered.

A good non-scholarly example of this argument can be seen in John Steele Gordon's article "The High Cost of War."[66] Gordon describes the U.S. Civil War and its spectacular and escalating cost by the standards of the time. He focuses on its unique position as "the first great conflict of the industrial era,"[67] and describes the differences in

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[66] John Steele Gordon, "The High Cost of War," *Barron's* (2011). https://www.barrons.com/articles/SB50001424052970203990104576191061207786514?tesla=y.
[67] Ibid.

economic models used by the Union and Confederacy to fund the conflict. His conclusion is that the Union won the war having been able to raise more money and outspend the Confederacy. Gordon makes no claim, however, regarding whether the Civil War's high spending lead to increased violence or a merciful end to a conflict that otherwise may have claimed more lives.

Where Gordon seizes on the Industrial Revolution and manufacturing for his explanation, Nicola Gennaioli focuses on the Military Revolution as a key element to increasing military budgets and the ability of nations to turn the tide of war through financial means. Gennaioli's article "State Capacity and Military Conflict" defines the Military Revolution as a period roughly corresponding with the widespread adoption of gunpowder between 1400 and 1600 in which centralized states with growing bureaucracies began to field large professional armies.[68] Gennaioli's argument is among the most nuanced as he notes two distinct but interrelated effects of money on conflict. Gennaioli argues that weak states, all spending little on conflict are likely to fight often. As states begin to spend more on conflict, states may be further incentivized to fight due to imbalances in their military budgets. This would increase conflict temporarily. Once strong centralized states have accomplished their military aims and weak states, unable to keep up financially, withdraw from competition, conflict would decrease.

Gennaioli's assertion that increasing military spending can both increase and decrease conflict depending on exogenous factors ties nicely into the arguments of Erik Gartzke and William Reed who both argue that increased spending leads to less conflict. Unlike Gennaioli, neither Gartzke nor Reed focus specifically on military expenditure but

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[68] Nicola Gennaioli, and Hans-Joachim Voth, "State Capacity and Military Conflict." *The Review of Economic Studies* 82, no. 4 (293) (2015): 1413. Accessed June 18, 2020. www.jstor.org/stable/43869472.

both argue that capitalist countries with interconnected economies are less likely to go to war. Reed specifically focuses on uncertainty as a cause of conflict in his article "Information and Economic Interdependence" and argues that countries with strong economic ties are more likely to understand each other's motivations, thereby avoiding serious conflict.[69] Similarly, Gartzke argues that capitalism allows economies to develop in ways that disincentivize conflict by placing less importance on the possession of land, increasing soft power, and providing an avenue for non-violent competition.[70] In total, these scholars all demonstrate the high level of interrelation between economics, finance, and conflict despite their various views on how they relate and to what end.

The study that stands out for the very direct relationship it demonstrates between military expenditure and conflict violence is Carrie A. Lee's "Use it or Lose It: The Political Economy of Counterinsurgency Strategy."[71] Lee's study is very narrow when compared to those discussed above, looking only at U.S. spending by junior officers in combat zones and the resultant violence in those areas. While this study focuses on the tactical level of expenditure and violence and does little to explain conflict writ large, particularly between nations, it does demonstrate a link between increased military spending and violence making it unique within this field.

Resource Theorists

David Jerome's *Examining War and Conflict Around the World* begins with this simple premise: "People are different," he writes, "and that difference will cause

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[69] Reed, William. "Information and Economic Interdependence." *Journal of Conflict Resolution* 47, no. 1 (February 2003): 54-71. doi:10.1177.0022002702239511.

[70] Erik Gartzke, "The Capitalist Peace," *American Journal of Political Science* 51, no. 1 (2007): 166-167. Accessed June 18, 2020. www.jstor.org/stable/4122913.

[71] Carrie A. Lee, and John Kendall, "Use It or Lose It: The Political Economy of Counterinsurgency Strategy," *Armed Forces & Society (0095327X)* 45, no. 3 (July 2019): 399–429. doi:10.1177/0095327X18790570.

conflict."[72] Jerome continues his argument writing that "a nation will seek… to acquire the necessary resources needed for sustainment and survival."[73] Jerome also includes a lengthy list of the causes of conflict but does not directly refer to economics, GDP, or military expenditure. This is common within conflict scholarship, many possible causes are discussed, the specter of financing said conflicts is always present, but the financing itself is rarely considered causative. Jerome's "necessary resources" are ambiguous. They could be weapons and the money needed to buy them but he could also be referring to human capital, land, food, or any number of other necessities. Given Jerome's list of causative factors, it seems the possession of weapons and ability to finance the same would be low on his list of "necessary resources" if they ranked at all. The ability to finance conflict does fit into the conflict studies discipline, however, and other scholars do relate economics to the causes of conflict.

Among the most common explanations for conflict, particularly among scholars who seek to explain the genesis and locations of conflicts around the world, is the unequal distribution of resources. As Francis-Vincent Anthony describes in his chapter "Causes of Interreligious Conflict," "…conflict arises from competition for scarce resources like economic wealth or political power."[74] Although these arguments often focus on the possession or control of physical resources, there is an implicit link between resource possession and wealth. Konrad Stańczyk[75] makes this connection in his article "Current

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[72] David Jerome, ed., *Examining War and Conflict Around the World*, (Santa Barbara: ABC-CLIO, 2019): xi. Accessed June 16, 2020. ProQuest Ebook Central.

[73] Ibid.

[74] Francis-Vincent Anthony, et al., "Causes of Interreligious Conflict," In *Religion and Conflict Attribution: An Empirical Study of the Religious Meaning System of Christian, Muslim and Hindu Students in Tamil Nadu, India*, (Leiden; Boston: Brill, 2015): 169. Accessed June 19, 2020. www.jstor.org/stable/10.1163/j.ctt1w76vhj.11.

[75] Konrad Stańczyk, "Current Trends in World Defence Expenditure," *Revista Academiei Fortelor Terestre* 19, no. 3 (October 2014): 313–18.

Trends in World Defense Expenditure" which argues that countries with high military budgets have either high GDP or oil revenue or exist in high conflict regions. Essentially, countries spend on defense because they can or because, as Jerome argues, they must.

Among scholars who focus on resource dependent explanations of conflict, numerous articles specifically address the impact of oil. Articles such as Shiping Tang's "Does Oil Cause Ethnic War?"[76] and Michael L. Ross's "Blood Barrels: Why Oil Wealth Fuels Conflict"[77] make the argument that oil either causes or exacerbates conflict. Ross and Tang both argue that oil and its related wealth can contribute to existing tensions between ethnic groups or within weak economic or political systems but as Ross writes, "oil alone cannot create conflict."[78] This oil-centric argument fits with the analysis of Jerome in that oil helps countries obtain the "necessary resources" he describes. Taken together with Stańczyk's argument, one could claim a more direct link between oil revenue, high military budgets, and high levels of conflict. This argument fits better with Ross's analysis, however, as Ross focuses more on the financial impact of oil sales on violence. Tang, on the other hand, discusses asymmetric resource distribution which would suggest that arguments linking high levels of expenditure to high levels of conflict would rarely apply to both sides of a conflict involving oil.[79] Similar arguments can be found among scholars who link other economic explanations to their more fundamental theories regarding the origins of conflict.

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http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=asn&AN=98692979&site=ehost-live&scope=site.

[76] Shiping Tang et al., "Does Oil Cause Ethnic War? Comparing Evidence from Process-Tracing with Quantitative Results," *Security Studies* 26, no. 3 (July 1, 2017): 359–90.

[77] Michael L. Ross, "Blood Barrels: Why Oil Wealth Fuels Conflict," *Foreign Affairs* 87, no. 3 (2008): 2-8.

[78] Ibid, 4.

[79] Shiping Tang, "Does Oil Cause Ethnic War," (2017): 388-389.

Poverty and Developmentalists

Hossein Askari seems to echo the biblical sentiment of "beating swords into ploughshares"[80] in the introduction of his 2012 book *Conflicts and Wars: Their Fallout and Prevention.* Askari describes high global military expenditures as the "miraculous pool of funds [that] exists before our very eyes."[81] Askari lays the blame for global conflict at the feet of leaders who he argues make the final decision to engage in conflict or avoid it but his argument nonetheless draws a clear connection between conflict and expenditure. Askari's argument does not clarify whether he believes that military expenditure causes conflict or succeeds it but he seems to imply the former. His overarching argument, however, is primarily focused on the economic benefits of reducing conflict.

Alex Braithwaite inverts this argument in his article, "Does Poverty Cause Conflict?" Braithwaite demonstrates a link between poverty and civil war arguing that impoverished countries are more conflict prone.[82] While the cases described in this article hardly fit with Askari's argument and its predication on expensive great power competition, Braithwaite's conclusion is strikingly similar. Where Askari argues for reducing military expenditure to divert resources to addressing civil issues, Braithwaite argues for addressing civil issues to reduce conflict (which would presumably reduce military expenditure as a byproduct).

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[80] *The Bible: Authorized King James Version*, ed. Robert Carroll, and Stephen Prickett, (Oxford: Oxford University Press. Oxford Scholarly Editions Online, 2012): Isaiah 2:4. 10.1093/actrade/9780199535941.book.1.

[81] Hossein Askari, *Conflicts and Wars: Their Fallout and Prevention*. (New York: Palgrave Macmillan, 2012): 5.

[82] Alex Braithwaite et al., "Does Poverty Cause Conflict? Isolating the Causal Origins of the Conflict Trap," *Conflict Management and Peace Science* 33, no. 1 (February 2016): 45–66. doi:http://journals.sagepub.com.proxy1.library.jhu.edu/loi/cmpb.

Given the literature discussed above, there are numerous plausible explanations for the cause of conflict. Although not all scholars point to economic explanations for conflict, resources are almost always part of the equation. As a result, money seems constantly in the background of this debate, even if sometimes only implicitly. While economic explanations may not be able to explain why conflicts begin or end, it is plausible that measuring a country's expenditure, particularly where it specifically relates to military activity, would have some value in understanding how conflicts are likely to play out in a given region and how violent they may be. The remainder of this paper will be focused on beginning to understand what the link is between military expenditure and conflict is, and how changes in expenditure impact conflict violence.

Note on Methodology

The data for this study comes from the Stockholm International Peace Research Institute (SIPRI) and the University of Uppsala's Uppsala Conflict Data Program. These two sources provide the data presented for global military expenditure and conflict deaths, respectively. For the purposes of visualization and discussion, the two data sets have been complied into various graphs, which are presented below.

While military expenditure data is taken directly from the SIPRI database for each country, death data is compiled for each country and includes neighboring countries with which that country shares borders. While this is an imperfect way of measuring deaths, particularly as they may or may not relate to military expenditures, this method provides several advantages over looking at a country in isolation or attempting to link a country to every other country where it may conceivably influence a conflict. First, including only deaths that are recorded in a particular country would greatly suppress deaths that are, in

many cases, clearly related to a given country's military operations. Taking Ethiopia as an example, numerous deaths from its war with Eritrea would be left out, since they did not occur on Ethiopian soil. Conversely, attempting to trace every expeditionary operation of a large military would be outside the scope of what this study can hope to accomplish. Apart from the U.S. and other large powers, the use of expeditionary military force beyond adjacent countries is generally limited. In the cases examined below, with the exception of Israel, this is particularly the case. As a result, this study only accounts for deaths in each country and their adjacent neighbors.

It is true that this methodology may overstate deaths in relation to a country that clearly did not contribute to them militarily. This is the case in the discussion of Israel and Syrian deaths below. These death totals are still included, however, as they relate to a broader discussion regarding military spending and how it may be impacted by a country's overall security environment. The qualitative discussion accompanying each case should allow the reader to evaluate these cases where the data may otherwise be misleading.

Correlation coefficients have been calculated for each region and country discussed based on the annual expenditure and deaths. These correlation coefficients are discussed at several points below and do help illustrate the arguments made in certain cases. The use of such figures should not be taken to suggest, however, that this study intends to prove a calculable relationship between military expenditure and conflict deaths. As discussed in chapter two, correlation does not imply causation. Where such relationships indicate interesting points for discussion and qualitative analysis, however, they are introduced.

It should also be noted that, despite the use of graphs and some inclusions of statistics, this paper is still primarily qualitative in nature. The graphs below are presented

to help illustrate relationships visually and to launch qualitative discussion that may better explain how military expenditure impacts conflict deaths and provide a foundation upon which to continue further inquiry.

Global Trends in Military Expenditure and Conflict Deaths

The data in chapter two suggests that increased weapons deliveries often occurred near the end of conflicts. That insight alone does little to answer the larger question as to whether such military expenditures increase conflict death tolls or serve to end conflicts that may otherwise forge ahead with their bloody business. This chapter attempts to broaden the scope of chapter two by examining countries' entire military budgets in the hopes of drawing more conclusive links between military spending and conflict deaths.

A slight negative correlation exists (correlation coefficient of -0.11) between global military expenditure and global conflict deaths between 1988 and 2019 as shown in Figure 3.1. Taken without further exploration, this would suggest that if military spending had any impact on conflict it would marginally suppress it.

Figure 3.1: Global Military Expenditure and Conflict Deaths 1988 - 2019
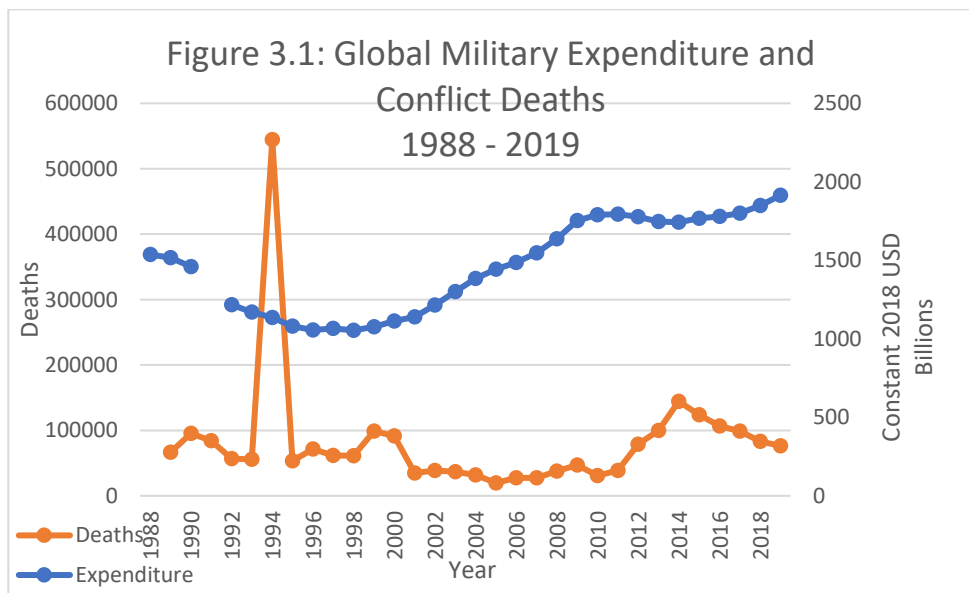
[83] Author compilation of data from: Global conflict death data is from: Therese Pettersson and Magnus Öberg, "Organized violence, 1989-2019," *Journal of Peace Research* 57 no.4 (2020). Ralph Sundberg and

It should be noted, however, that according to the SIPRI data on which this graph is based, the U.S. and China account for 52 percent of global military expenditure. Such a massive inequity in military budgets likely masks trends that would otherwise be apparent as smaller changes in spending are smoothed over by top heavy spending from larger powers. As a result, to understand and make sense of any relationship between military spending and conflict deaths, it is important to observe regional as well as country specific trends.

A similar trend emerges when examining the death data. The 1994 Rwandan genocide creates an outlier that heavily affects the data. With that specific event removed from the dataset the negative correlation between military budgets and conflict deaths goes from -0.10 to 0.27 and controlling for all one-sided conflict the correlation increases again to 0.32. In other words, what starts as a negative correlation bordering on randomness becomes and slightly, though still not statistically significant,[84] positive one.

The data in Figure 3.1 do not help to illustrate any relationship between global expenditure and conflict deaths. This should perhaps come as no surprise given the incredible diversity of conflicts globally. Even looking primarily at factors within the scope of this study, military budgets vary greatly between continents and countries and death tolls may be driven by famine or disease as much as by bullets and bombs. As a result, in discussing the connection between military budgets and conflict deaths, smaller regional

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Erik Melander "Introducing the UCDP Georeferenced Event Dataset," *Journal of Peace Research* 50 no.4 (2013). Global military expenditure data is from: Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," (Stockholm: SIPRI, 2020) https://www.sipri.org/databases/milex.
[84] For this paper, correlation of 0.7 or -0.7 is deemed significant see: Diana Mindrila and Phoebe Balentyne, "Scatterplots and Correlation," University of Western Georgia, accessed July 15, 2020, https://www.westga.edu/academics/research/vrc/assets/docs/scatterplots_and_correlation_notes.pdf.

and country specific analysis are more instructive and allow for a measure of control over exogenous factors that may otherwise make the data hard to interpret or misleading.

The 31-year period discussed herein, the years for which reliable data is best available, provides several case studies that make themselves immediately apparent. Deaths related to both inter and intrastate military conflict over the past 31 years have generally remained below 100,000 per year. In some cases, such as between 2001 and 2011, conflict deaths have been much lower. Spikes during this period have generally been driven by specific, regionally isolated conflicts. The spike in deaths in 1994 can be attributed to the Rwandan genocide.[85] The increase after 2012 is primarily the result of the Syrian Civil War, which began in 2011,[86] and the Yemen Civil War, which began in 2015.[87] Rwanda offers an interesting case, despite being a country with low military spending and an outlier because of the Rwandan Civil War's high death toll. Although there is little statistical correlation between Rwanda's military spending and conflict deaths, several notable trends are visible in Figure 3.2.

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[85] David A. Armstrong II, et al., "Casualty Estimates in the Rwandan Genocide," *Journal of Genocide Research*, 22 no.1 (2020): 104. Doi: 10.1080/14623528.2019.1703251

[86] Peter H. Gleick, "Water as a Weapon and Casualty of Armed Conflict: A Review of Recent Water-related Violence in Iraq, Syria, and Yemen," *WIRES Water* 6, no. 4 (July 2019): 2. doi:10.1002/wat2.1351.

[87] Ibid, 10.
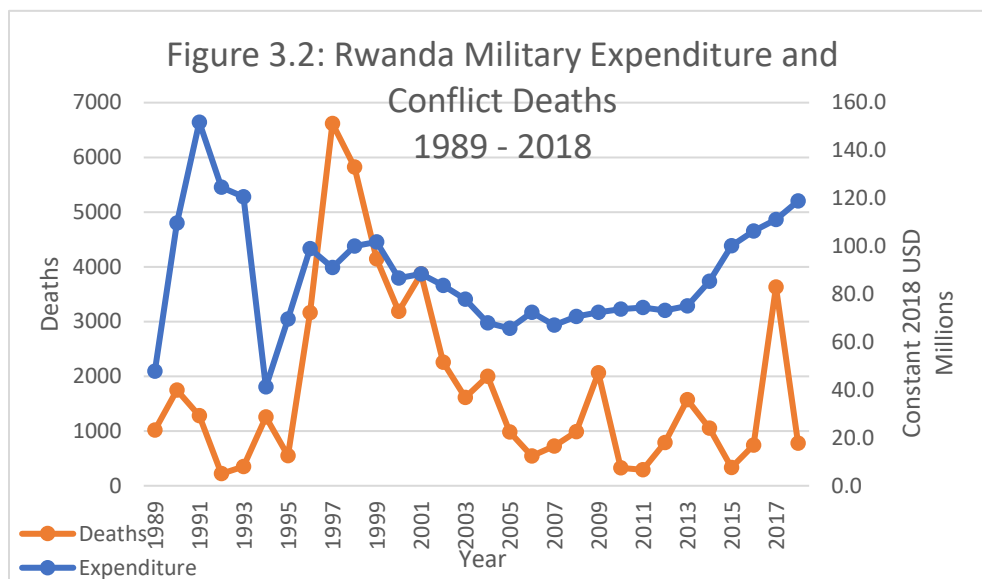
Figure 3.2: Rwanda Military Expenditure and Conflict Deaths 1989 - 2018

Author compilation of data from: Global conflict death data is from: Therese Pettersson and Magnus Öberg, "Organized violence, 1989-2019," *Journal of Peace Research* 57 no.4 (2020). Ralph Sundberg and Erik Melander "Introducing the UCDP Georeferenced Event Dataset," *Journal of Peace Research* 50 no.4 (2013). Global military expenditure data is from: Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," (Stockholm: SIPRI, 2020) https://www.sipri.org/databases/milex. Figure excludes genocide.

Removing the almost 500,000 deaths attributed to the genocide of the Tutsi population, there is still a notable increase in both spending and deaths at the beginning of the Rwandan Civil War in 1990. Similarly, as the deaths increased with fighting spilling into the Congo in 1996,[88] Rwanda also increased its expenditure more than double from 40 to 100 million. After 2001, Rwanda's military budget seems to stabilize despite fluctuations in annual regional deaths and has slowly trend upwards since, totaling over 120 million dollars in 2017. These patterns suggest crisis spending during the civil war.

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[88] Pamela D. Couture, "Demystifying the War in the Democratic Republic of Congo," *Journal of Pastoral Theology* 17, no. 1 (2007): 19. http://search.ebscohost.com.proxy1.library.jhu.edu/login.aspx?direct=true&AuthType=ip,shib&db=rfh&AN=ATLA0001690560&site=ehost-live&scope=site.

The post-2001 budget stabilization is likely the result of a reduced conflict environment coupled with the rule of President Kagame who took office in 2000.[89] Despite the outlier related to the 1994 genocide, Rwandan military expenditure demonstrates a pattern of spikes related to military operations which are visible in the annual data. This trend can also be observed in Ethiopia, which is discussed below.

Unfortunately, similar analyses cannot be conducted for the other two countries with high conflict death tolls from the global data presented in Figure 3.1. No reliable military expenditure data is available for Syria. Yemeni data is only available from 1990 to 2014, while a significant number of deaths in that civil war have occurred since 2014.

Unlike the cases of Rwanda, Syria, or Yemen with their remarkably high death tolls, the following case studies have been selected specifically for their relevance to this study's methodology and the broad applicability of any observations they yield. All four cases described below, Israel, Ethiopia, Colombia, and Sri Lanka, were selected due to the availability of data for the years in question as well as for regional diversity. Sri Lanka also offers a unique case due to its isolated nature and the intense civil war there, which naturally controls for certain exogenous factors that would be difficult to rule out in many other cases.

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[89] Gutierrez Michael, "Paul Kagame," *Paul Kagame*, (2020): 1.
http://search.ebscohost.com.proxy1.library.jhu.edu/login.aspx?direct=true&AuthType=ip,shib&db=f5h&AN=21509643&site=ehost-live&scope=site.

Positive Correlations, External Threats

The continent of Africa has a slight negative correlation between military expenditure and conflict deaths. This has mostly been driven by the continent's ballooning military expenditures
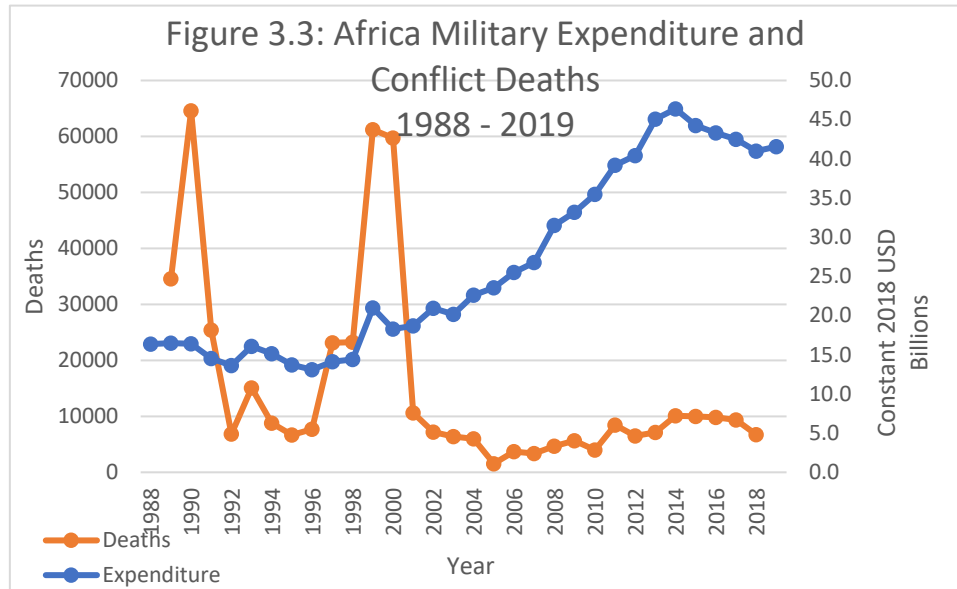
Figure 3.3: Africa Military Expenditure and Conflict Deaths 1988 - 2019

Author compilation of data from: Global conflict death data is from: Therese Pettersson and Magnus Öberg, "Organized violence, 1989-2019," *Journal of Peace Research* 57 no.4 (2020). Ralph Sundberg and Erik Melander "Introducing the UCDP Georeferenced Event Dataset," *Journal of Peace Research* 50 no.4 (2013). Global military expenditure data is from: Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," (Stockholm: SIPRI, 2020) https://www.sipri.org/databases/milex.

after 2002, while conflict deaths have remained relatively low as can be seen in Figure 3.3. Two significant spikes in deaths can also be observed in this figure, one in 1990 and the other in 1999 and 2000, both of which correspond to conflict in Ethiopia and Eritrea. Only the 1999 spike in deaths correlates to a slight increase in spending continent wide. As shown in Figure 3.4, Ethiopia has one of the strongest positive correlations.
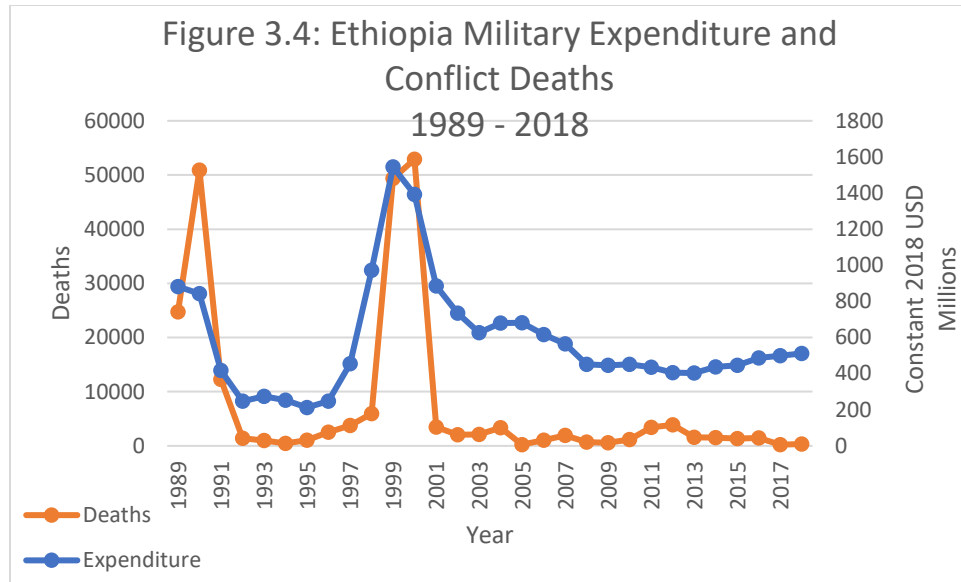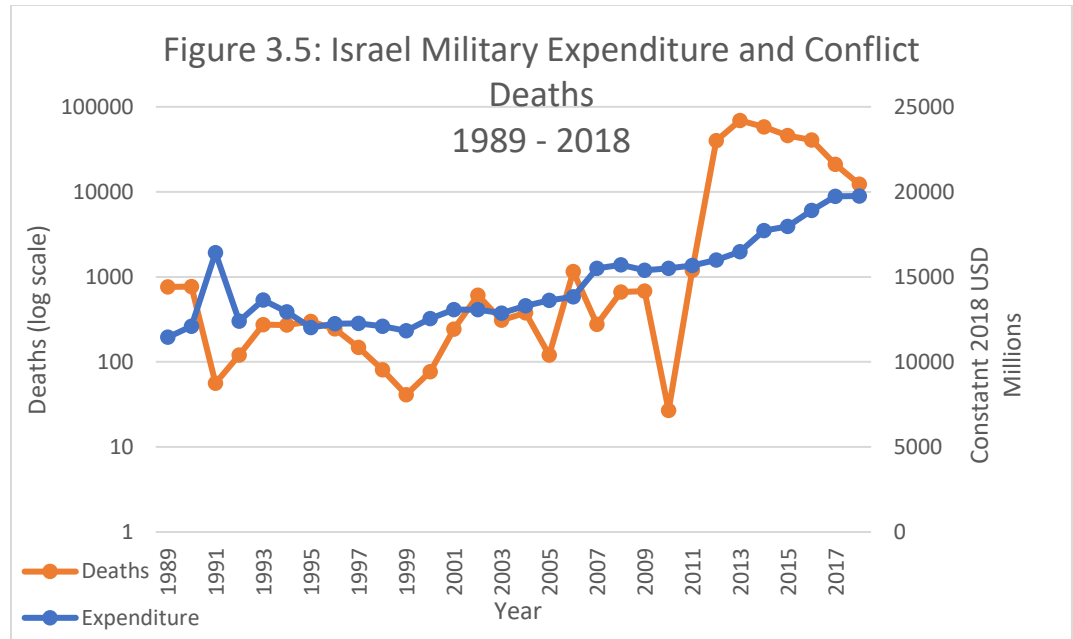
Figure 3.4: Ethiopia Military Expenditure and Conflict Deaths 1989 - 2018

Author compilation of data from: Global conflict death data is from: Therese Pettersson and Magnus Öberg, "Organized violence, 1989-2019," *Journal of Peace Research* 57 no.4 (2020). Ralph Sundberg and Erik Melander "Introducing the UCDP Georeferenced Event Dataset," *Journal of Peace Research* 50 no.4 (2013). Global military expenditure data is from: Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," (Stockholm: SIPRI, 2020) https://www.sipri.org/databases/milex.

With a correlation coefficient of 0.77, Ethiopia provides the most statistically significant case in this study linking military expenditure to conflict deaths. Visually, it is easy to see how Ethiopian military spending tracks closely with conflict deaths in the region. Two significant factors should be noted here. First, Ethiopia was directly involved in both conflicts that drove spikes in deaths visible in Figure 3.4. Second, Ethiopia's military budget outside of these conflicts has been relatively stable hovering between 300 and 500 million for 16 out of the 29 years depicted. This contrasts with global defense spending patterns that have generally trended higher since 2000, a pattern that is reflected in Figure 3.3's data for Africa.

Another trend that emerges here is that spending often begins to increase prior to the most violent years. As Figure 3.4 shows, a high level of spending in 1989 preceded a particularly violent year in 1990. Similarly, spending began to increase in 1997 and 1998 leading up to the peak of violence and spending in 1999. Similar trends can be observed in

the Rwandan spending patterns in Figure 3.2. This is the opposite of the trend observed in chapter two, where Foreign Military Sales often succeeded conflict deaths. This may be the result of a lag in appropriations or variances in countries accounting for annual spending but is not necessarily inconsistent. For example, the large increase in Ethiopian military spending in 1998 corresponds to with a U.S.-Ethiopia arms deal, discussed in chapter two, which was delivered in 2000 and corresponds with the high number of deaths that year. Despite a clear relationship between spending and deaths in Ethiopia, the question remains about long-term spending impacts. While it is clear spending preceded deaths in this case, much more detailed study would be needed to conclude how much spending caused deaths that may have otherwise be prevented or whether such expenditure may have saved lives by ending the conflict earlier.

Israel provides another case with a similarly strong correlation between military expenditure and conflict deaths although under very different circumstances than Ethiopia.

Figure 3.5: Israel Military Expenditure and Conflict Deaths 1989 - 2018

Author compilation of data from: Global conflict death data is from: Therese Pettersson and Magnus Öberg, "Organized violence, 1989-2019," *Journal of Peace Research* 57 no.4 (2020). Ralph Sundberg and Erik Melander "Introducing the UCDP Georeferenced Event Dataset," *Journal of Peace Research* 50 no.4 (2013). Global military expenditure data is from: Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," (Stockholm: SIPRI, 2020) https://www.sipri.org/databases/milex.

Conflict deaths in Israel's region have fluctuated wildly having jumped from a low of 27 in 2010 to over 40,000 in 2012, largely due to conflict in neighboring Syria. Israel also has a relatively high level of military spending, especially compared to African nations, having never spent less than 10 billion dollars since 1989. Israel also finds itself hemmed in by hostile powers, which it views as a threat to its very existence.[90] This contrasts with a country like Ethiopia, which is located in a volatile region with neighboring Sudan and Somalia, does not face an existential threat from either. As a result, Israel's national security situation is quite different from those examined thus far.
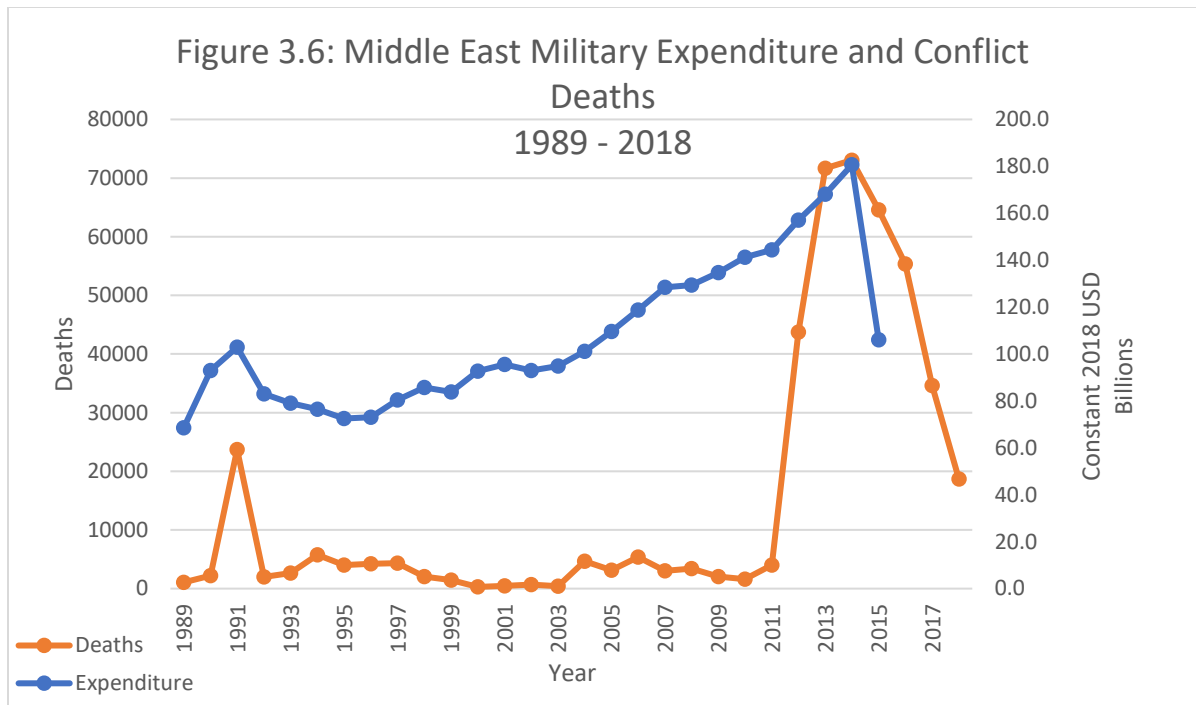
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[90] Michael I. Handel, *Perception, Deception and Surprise: The Case of the Yom Kippur War*, (Jerusalem: The Hebrew University, 1976): 41.

Despite Israel's modest correlation between expenditure and deaths, it seems that much of this relationship is incidental. In addition to Israel's relatively high level of annual military spending, the country's spending has generally trended higher over time with few notable spikes. This spending pattern seems to match the global and regional trend. The spike in deaths in Israel's region after 2011 is largely tied to the civil war in Syria which began in that year. Although Israel has had some incidental involvement in Syria since the war began, mostly on the humanitarian front,[91] it does not seem to be a significant driver of Israeli military operations or spending. As a result, Israeli expenditures, while continuing to increase year over year, sees no significant movement in concert with the skyrocketing death toll in Syria.

Similarly, it would be difficult to argue that the primary driver of the increased spending for the Middle East as a whole, seen in Figure 3.6, could possibly have been driven by a coming war in Syria. Such conflict would have been difficult to predict even if it were likely to drive military spending and it is implausible to assume it would have driven the 18 years of increasing

spending seen between 1996 and 2014. This only furthers the case for Israeli spending trending with regional norms rather than being influenced by conflict deaths or used to create deadly

outcomes.

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[91] Anath A. Flugelman and Masad Barhoum, "Humanitarian Aid Bridging Across a Hostile Border," *Pediatrics* 140 no. 5 (2017) Doi: 10.1542/peds.2016-3667.

Figure 3.6: Middle East Military Expenditure and Conflict Deaths
1989 - 2018

Deaths — 80000, 70000, 60000, 50000, 40000, 30000, 20000, 10000, 0

Constant 2018 USD Billions — 200.0, 180.0, 160.0, 140.0, 120.0, 100.0, 80.0, 60.0, 40.0, 20.0, 0.0

Year: 1989, 1991, 1993, 1995, 1997, 1999, 2001, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017

—●— Deaths
—●— Expenditure

Author compilation of data from: Global conflict death data is from: Therese Pettersson and Magnus Öberg, "Organized violence, 1989-2019," *Journal of Peace Research* 57 no.4 (2020). Ralph Sundberg and Erik Melander "Introducing the UCDP Georeferenced Event Dataset," *Journal of Peace Research* 50 no.4 (2013). Global military expenditure data is from: Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," (Stockholm: SIPRI, 2020) https://www.sipri.org/databases/milex.

There are two significant factors to consider here when comparing this case to that of the African nations described above. First is that Israel spends a significant amount of money on its military and maintains state of the art missile defense systems, aircraft, and highly trained troops at all times.[92] As a result, Israel is less likely to need the surge spending, even when a conflict breaks out. Second, despite having conflict related deaths in the region in every year depicted, some years have been relatively low intensity and the highest death tolls have occurred in Syria where Israeli involvement has been minimal.

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[92] Zev Chafets, "Israeli s Military Is World Class but Is It Ready," *Bloomberg.Com*, (2018). http://search.ebscohost.com.proxy1.library.jhu.edu/login.aspx?direct=true&AuthType=ip,shib&db=bsu&AN=140600523&site=ehost-live&scope=site.

This suggests that correlations between military expenditure and conflict deaths may be explained quite differently depending on countries' policies regarding military expenditure as well their security situation. Despite less correlation between spending and death in Rwanda, similar patterns of surge spending emerge in the relatively low budgets of both Rwanda and Ethiopia. Israel, with its higher budget and increasing expenditure need not make significant changes to its military spending even when its region is beset by an increase in violence. Similarly, countries like Ethiopia, forced to engage directly with enemy combatants appear more likely to increase spending when compared to countries, which may find themselves only incidental targets of conflict violence.

Maintaining High Spending: Internal Conflict and Insurgency

Colombia exhibits the strongest negative correlation observed in this study. As can be seen in Figure 3.7, as Colombian military expenditure has increased, violence has trended lower.
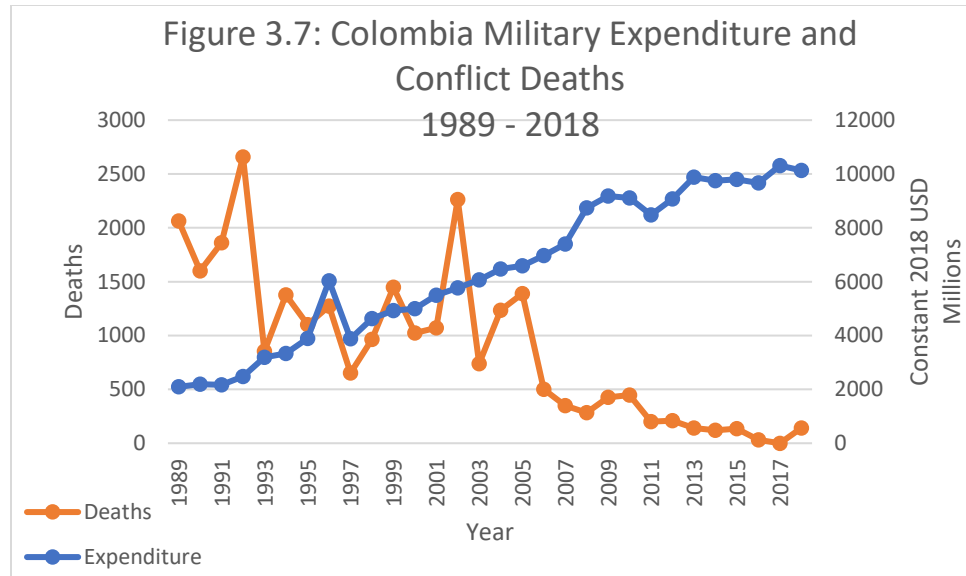
Figure 3.7: Colombia Military Expenditure and Conflict Deaths 1989 - 2018

Author compilation of data from: Global conflict death data is from: Therese Pettersson and Magnus Öberg, "Organized violence, 1989-2019," *Journal of Peace Research* 57 no.4 (2020). Ralph Sundberg and Erik Melander "Introducing the UCDP Georeferenced Event Dataset," *Journal of Peace Research* 50 no.4 (2013). Global military expenditure data is from: Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," (Stockholm: SIPRI, 2020) https://www.sipri.org/databases/milex.

Although some violence in Colombia's region is related to guerilla movements in other countries, such as the Shining Path in Peru, the primary driver of the deaths depicted in Figure 3.7 has been the insurgency of the Revolutionary Armed Forces of Colombia otherwise known by the Spanish language acronym FARC.

Similar to the patterns observed with Israeli military spending, Colombian spending has been relatively high and continued to increase steadily since 1989. A pressure campaign against the FARC beginning during the presidency of Álvaro Uribe,[93] who took office in 2002, suppressed FARC activities and conflict deaths in the region. This led to peace talks which began in 2012.[94] None-the-less, military expenditures in Colombia have

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[93] June S. Beittel, "Peace Talks in Colombia," (Washington: Congressional Research Service, 2015): 6. https://fas.org/sgp/crs/row/R42982.pdf
[94] Ibid, 14.

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continued to climb. Colombia, much like Israel, represents a high spending country with patterns that align with the regional trend of increased military expenditures over time. Unlike Israel, where external threats largely drive the need for security related spending, Colombia's biggest threats are internal. Interestingly, this distinction also aligns with Colombia's negative correlation between expenditure and deaths, another contrast with Israel. This supports scholarship that suggests internal repression may be achieved through increased military spending and foreign military aid.[95] In the case of interstate conflict, such as with Israel and Ethiopia, military spending aligns more closely with increases in violent conflict.
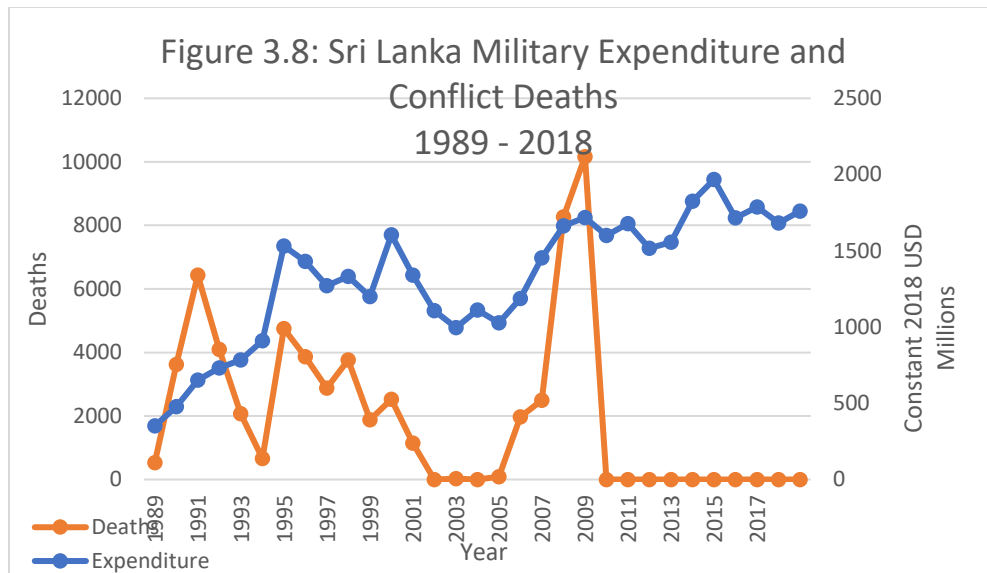
      Sri Lanka also demonstrates similar violence and spending patterns to Colombia. Sri Lanka is an island nation that has a generally positive relationship with its closest neighbor, India.[96] As a result, Sri Lanka's primary military concern has been the Tamil insurgency. From a statistical perspective, the relationship between military spending in Sri Lanka and conflict deaths has been little better than random. The overall pattern, however, shows that Sri Lanka has increased spending over time and effectively suppressed the insurgency on the island. This is a similar trend to that observed in Colombia.

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[95] Oeindrila Dube, and Suresh Naidu, "Bases, Bullets, and Ballots: The Effect of US Military Aid on Political Conflict in Colombia," *Journal of Politics* 77, no. 1 (January 1, 2015): 249. http://search.ebscohost.com.proxy1.library.jhu.edu/login.aspx?direct=true&AuthType=ip,shib&db=ijh&AN=65.4705&site=ehost-live&scope=site.
[96] Bruce Vaughn, "In Focus: Sri Lanka," (Washington: Congressional Research Service, 2018). https://crsreports.congress.gov/product/pdf/IF/IF10213/5.

Figure 3.8: Sri Lanka Military Expenditure and Conflict Deaths 1989 - 2018

Author compilation of data from: Global conflict death data is from: Therese Pettersson and Magnus Öberg, "Organized violence, 1989-2019," *Journal of Peace Research* 57 no.4 (2020). Ralph Sundberg and Erik Melander "Introducing the UCDP Georeferenced Event Dataset," *Journal of Peace Research* 50 no.4 (2013). Global military expenditure data is from: Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," (Stockholm: SIPRI, 2020) https://www.sipri.org/databases/milex.

Figure 3.8 shows Sri Lankan military expenditure tracking closely with conflict deaths between 1994 and 2008. A three-year increase in spending preceded the final push to eradicate the insurgents in 2009 after which time, fighting ended and spending has remained high. Despite Sri Lanka's low overall expenditure, which has never broken 2 billion dollars, the spending pattern in Sri Lanka's post war period is remarkably similar to the pattern in Colombia. Sri Lanka has continued to maintain high levels of military investment even in a relatively secure environment. Due to the isolated nature of Sri Lanka's conflict, increased spending seen after 2005 is very likely to have contributed to the higher death toll as the war ended in 2009.[97] Surprisingly, a lack of deaths failed exert any influence in subsequent spending. This suggests a similar plan of strategic spending in

[97] Ibid.

both Colombia and Sri Lanka which, having defeated an insurgency, now maintain a substantial military deterrence to future uprising.

Conclusion

Analysis of the data demonstrates the complexity of the connections between military expenditure and conflict deaths. Three bottom line conclusions all suggest avenues for further research. First, different spending patterns can be observed between countries with low military spending and those with high military spending. Low spending countries appear more likely to have correlation between military spending and conflict deaths. Second, countries facing primarily internal security threats, such as insurgencies, appear to have the strongest negative correlations between military spending and conflict deaths. That is, as these countries spend more, conflict deaths there tend to decrease. Finally, there seems to be a trend of significant increases in military spending over the past decade, which appears regionally and in all but one of the countries discussed above, even while conflict deaths have remained at relatively low levels.

The most obvious observation made above is that military spending has increased over the past 30 years almost everywhere. This holds true for global and regional spending. Even a slight dip in African spending over the past five years does little to obscure the overall trend visible there and spending has also increased in South Asia, Latin America, and the Middle East. In some ways, this general increase in spending may serve to hide trends, which would otherwise be more easily related to increases or decreases. It is significant that the strongest positive correlation between military expenditure and conflict deaths was visible in Ethiopia, which has the lowest military budget in this study and is the only country to buck the larger trend of increased military spending in its post war period.

The strong correlation between military expenditure and conflict deaths in the case of Ethiopia may appear to some as being indicative of poor policy. After all, what country wants to be blamed for their budget increase directly relating to the deaths of their citizens and neighbors? It may be, however, that Ethiopia is turning more of its budget towards the proverbial plowshares during peacetime. This is as likely a function of necessity as it is a policy decision. Compare Ethiopia to Sri Lanka, for example, and it is unlikely Ethiopia could sustain similar levels of military spending outside of a crisis. With a relatively similar GDP in both countries, the Sri Lankan population is roughly a fifth that of Ethiopia and the country is 94 percent smaller.[98]

Future studies may be able to control for the impact of these mismatches in military spending to make better comparisons between countries. Further avenues for research include grouping countries more selectively by expenditure and comparing countries on other economic measures such as GDP. Similarly, studies could focus on conflicts such as the U.S. led war in Afghanistan for which granular spending and death data is readily available. This would allow for observations of spending patterns without the concealment of a country's high level of non-combat defense spending such as research and development or procurements, which are never fielded in combat. A comparison of this type in a high spending country like the U.S. or Israel would actually be a better point of contrast with a lower spending country like Ethiopia where the majority of military spending is driven by specific conflicts.

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[98] Central Intelligence Agency, "South Asia: Sri Lanka," *The World Factbook* (June 29, 2020). https://www.cia.gov/library/publications/the-world-factbook/geos/ce.html; and "Africa: Ethiopia," *The World Factbook* (July 1, 2020) https://www.cia.gov/library/publications/the-world-factbook/geos/et.html.

Another significant factor that seems to weigh on countries' spending patterns is the type of conflict in which they are primarily involved. Maintaining high levels of spending in Sri Lanka and Colombia seems to have kept gains against insurgents in place and held violence at low levels. The external threat environments of Ethiopia and Israel seem to make any potential links between spending and deaths less predictable. The conclusion here is not surprising, states can exercise more control within their own borders than over external events. As a result, high levels of spending correspond with more direct, observable impacts on violence when it is primarily contained within the state that hopes to control it. This observation is likely to be particularly apt for negative correlations between military spending and violence when such spending is used for state repression. The next chapter will examine this trend in further detail.

Finally, all the countries examined have experienced periods of relative peace over the past decade. Even Israel has been relatively stable and although the death toll in neighboring Syria has been high, even that has decreased year over year since 2013. While military spending may not be the primary driver of this period of peace, it cannot be discounted as a potential factor. Given the upward trend in military spending, it may be impossible to observe the impact of reduced spending on a large scale. That leaves studies like this one to observe smaller countries and make idiosyncratic observations about budgets and low-level conflicts. It may be that a spending model like Ethiopia's could and should be adopted more widely but no country that views itself at risk of violent conflict would be likely to make that gamble.

Although the opportunity cost of 2 trillion dollars' worth of annual military expenditure is undoubtedly high, assuming annual conflict deaths can be held to currently

levels of below 100,000 per year (a fraction of one percent of the global population) it is hard to argue in favor of a change that may upset that balance. Instead, policies should be aimed at addressing issues within individual countries to reduce the need for expensive internal repression in places like Sri Lanka and Colombia, helping poor countries like Ethiopia prevent the costly outbreak of future wars, and ending conflict in places like Syria where cost is an unlikely driver of the high death tolls and neighboring countries shoulder a heavy economic burden for their security.

Chapter Four

Coin for COIN: Military Budget Impact on Counterinsurgency and Related Deaths

Insurgency in a modern context conjures images of masked fighters with worn Kalashnikov rifles and rocket propelled grenades lurking in dusty shacks in places like Mosul or Kandahar. These depictions are probably well-earned and link back at least to 1980s era Soviet operations in Afghanistan.[99] Insurgent tactics and their study, however, have a long history dating back at least to the 1880s.[100] Insurgent movements can prove tenacious and difficult to defeat, as both the Soviet and U.S. counterinsurgency (COIN) efforts in Afghanistan have demonstrated.

The tenacity of insurgent movements may account for the lengthy, high cost wars needed to defeat them, but as with other forms of conflict, no scholars advocate for countries to simply attempt to spend their way out of an insurgency. As with the conflicts explored in previous chapters, however, many explanations of successful insurgency and counterinsurgency operations suggest that efforts to defeat insurgents require significant

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[99] Bill Keller, "Home from Afghanistan; Russia's Divisive War." *New York Times,* Feb 14, 1988, Late Edition (East Coast). http://proxy.library.jhu.edu/login?url=https://www.proquest.com/docview/426740889?accountid=11752.

[100] Robert J. Bunker, "Old and New Insurgency Forms," (Strategic Studies Institute: US Army War College, 2016): 2. http://www.jstor.org/stable/resrep11556.

funding. It also seems that the best counterinsurgency operations require a delicate touch.[101] Such theories help explain Soviet and U.S. failures in Afghanistan and informs data observations for Iraq and Afghanistan.

Scholars have identified numerous challenges for counter insurgency operations. These include country's rough terrain, insurgent fighters' superior local knowledge, the ability for insurgents to blend with the local population and avoid detection, and the inability for counterinsurgency operatives to win local support.[102] Data driven approaches have observed trends these variables as they related to insurgent activity even within individual countries. Sarah Daly's "Organizational Legacies of Violence" is one such study which describes insurgent trends within Colombian regions that had prior military mobilizations. She explains how prior mobilizations increased the chances of developing active insurgencies.[103] Christopher Blattman's economically focused "Civil War" also extols the value of disaggregated "micro datasets" and seems to lend credence to Daly's method.[104] Regardless of which factor, or set of factors, one accepts as the primary driver of a given insurgency, it quickly becomes clear that countering insurgents is a military challenge of the highest order.

Understanding how insurgent-driven conflicts end is also important and empirical studies have made strides on this front as well. Of particular note is Christopher Paul's 2014 "Paths to Victory" which ranks factors leading to the end of insurgency. Paul's

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[101] Syed Hussain Shaheed Soherwordi, "US and Pakistani Perspectives on Counter-insurgency in Afghanistan," *Pakistan Horizon* 66, no. 1/2 (2013): 29-42. http://www.jstor.org/stable/24711490.
[102] Ibid.
[103] Sarah Zukerman Daly, "Organizational Legacies of Violence: Conditions Favoring Insurgency Onset in Colombia, 1964-1984." *Journal of Peace Research* 49, no. 3 (2012): 473-91. http://www.jstor.org/stable/41721586.
[104] Christopher Blattman, and Edward Miguel, "Civil War," *Journal of Economic Literature* 48, no. 1 (2010): 34. http://www.jstor.org/stable/40651577.

analysis, based on a RAND Corporation study, concludes that insurgency can be defeated through a combination of decisive overmatch, reduction of tangible support, and a commitment to six or more years of counter-insurgency operations.[105] Similar empirical studies argue in favor of increased economic development and political factors as fundamental elements of limiting insurgent viability.[106] It stands to reason, in light of these factors, that counter-insurgency operations would be both lengthy and costly. Regardless of which factors are most significant for counter insurgents, a lengthy commitment, institutional change, and military overmatch are all expensive proposals, even taken individually. U.S. experience in both Iraq and Afghanistan bear this out, with nearly 20 years of fighting and over 2 trillion dollars in expenditure.[107]

In the previous chapter, examining the impact of military budgets showed that while broad relationships between spending and conflict deaths were difficult to observe, a pattern did begin to emerge in cases where countries' militaries were primarily engaged in repressing internal conflict such as insurgent movements or civil wars. This chapter conducts a similar analysis, but with a focus on counter insurgency spending. This serves to better explain the patterns observed in chapter two. Examples in this chapter demonstrate the impact of military spending on conflict related deaths within the context of counter insurgency.
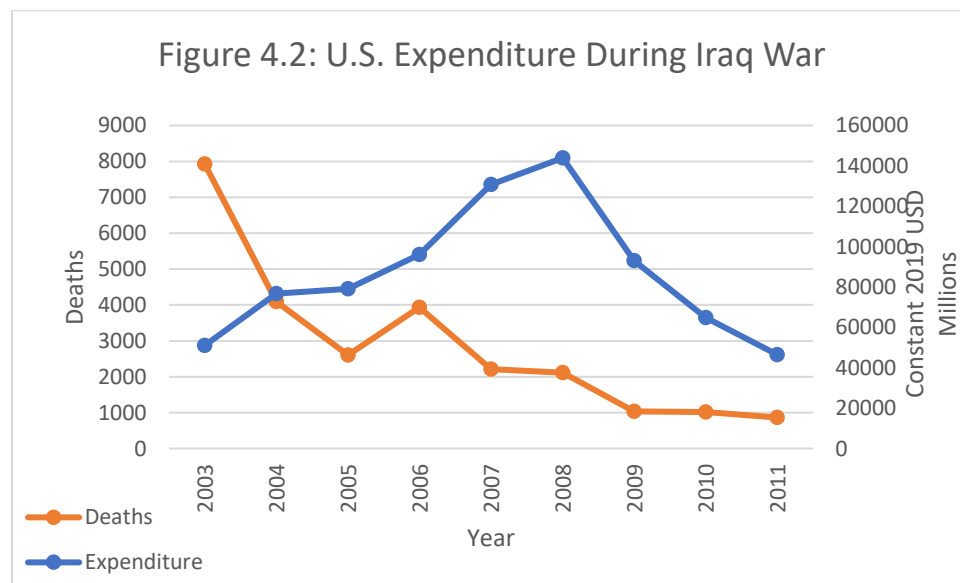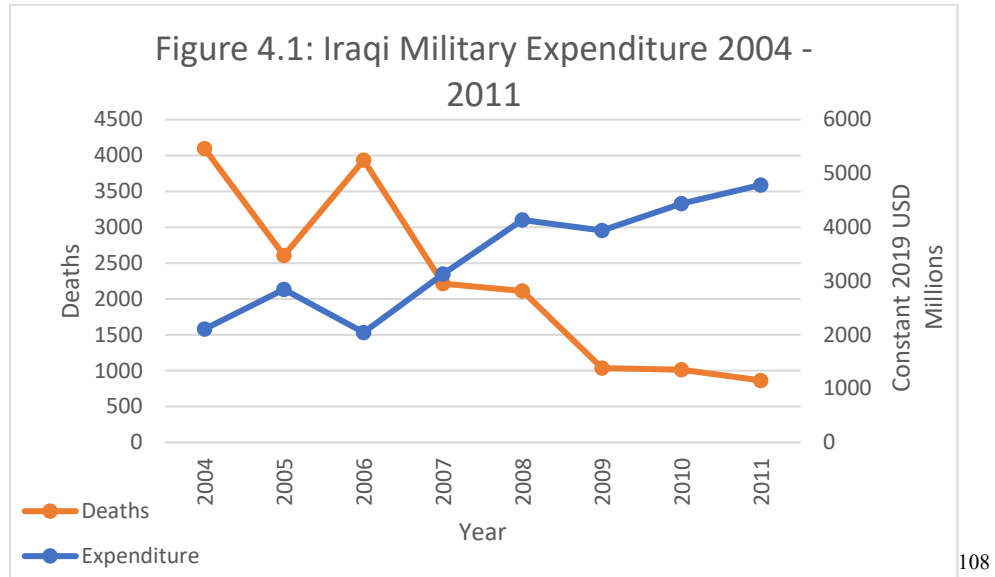
[105] Paul, Christopher. "Paths to Victory." *New Zealand International Review* 39, no. 3 (2014): 21. doi:10.2307/48551470.

[106] See Håvard Hegre, "Peace on Earth?: The Future of Internal Armed Conflict," *Significance* 10, no. 1 (February 2013): 4–8. doi:10.1111/j.1740-9713.2013.00628.x. and Shivaji Mukherjee. "Why Are the Longest Insurgencies Low Violence? Politician Motivations, Sons of the Soil, and Civil War Duration." *Civil Wars* 16, no. 2 (June 2014): 172–207. doi:10.1080/13698249.2014.927702.

[107] See data from Brown University compiled by *The Balance*: Kimberly Amadeo, "Cost of the Iraq War, Its Timeline, and the Economic Impact," *The Balance* (August 5, 2020). https://www.thebalance.com/cost-of-iraq-war-timeline-economic-impact-3306301. and "Afghanistan War Cost, Timeline, and Economic Impact" *The Balance* (April 8, 2020) https://www.thebalance.com/cost-of-afghanistan-war-timeline-economic-impact-4122493.

Figure 4.1: Iraqi Military Expenditure 2004 - 2011

Figure 4.2: U.S. Expenditure During Iraq War

There is a clear discrepancy in looking at military expenditure during the Iraq War. The graphs above separate the expenditure between money spent by the Iraqi military and that spent by the U.S. military. Importantly, this period includes a transition. In 2003, the

[108] Author compilation from: Stockholm International Peace Research Institute and the Uppsala Conflict Data Program. Individual figures for U.S. expenditure in Afghanistan and Iraq from Amadeo, Kimberly. "Cost of the Iraq War, Its Timeline, and the Economic Impact." *The Balance* (August 5, 2020). And; Crawford, Neta C. "Costs of War." Watson Insititute: Brown University, 2018.

Iraqi government was defending itself against a U.S. invasion, but by 2011, it had switched to fighting an insurgency alongside U.S. forces. As the invasion transitioned to a counterinsurgency operation, expenditure on both sides increased significantly until 2008 with the U.S. investing the lions share. Spending declined rapidly after reaching its peak in 2008 with the Bush administration's "surge" plan. In 2009, the Obama administration began the process of removing troops from Iraq. In 2010, despite the official end of combat operations, troops remained on the ground.[109] The drawdown helps explain the reduction in spending, which tapers off towards the supposed end of combat operations.

The graph of Iraqi spending, however, demonstrates a pattern similar that observed in the previous chapter in Sri Lanka and Colombia. The spending increase leading up to 2008 correlates with a suppressed death toll. After 2008, Iraq maintained high levels of spending while deaths stayed relatively low. It is natural to assume that as the Iraqi government recovered after the U.S. invasion and turned its attention towards internal security, spending would increase, particularly as U.S. involvement and expenditure was reduced. It is significant, however, that Iraq's military spending during this period does strongly correlate with a reduction in violence. It is particularly notable that this reduction occurred even as U.S. support decreased both financially and in-kind. In addition to aligning with previous observations in Colombia and Sri-Lanka, this also suggests that there may be a connection between spending on internal security and counterinsurgency that excludes foreign involvement. This makes sense in the context of the counterinsurgency goal of building legitimacy and denying legitimacy to insurgents. This strategic goal is aided by knowledge of and adherence to "local traditions, customs, norms,

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[109] Christopher M. Blanchard, "Iraq: Background and U.S. Policy," (Washington: Congressional Research Service, 2017): 46. https://crsreports.congress.gov/product/pdf/R/R45025/4.

[and] social structures."[110] Local forces are best positioned to carry out this task and may be undermined by perceptions of undue external influence.

A new distinct phase of conflict in Iraq began in 2014,[111] with deaths tolls and Iraqi government spending both spiking to levels previously unseen. While the increased deaths and spending roughly correlate, this new phase of conflict in Iraq could yet be used to argue both sides of the military spending debate. The surge in deaths beginning in 2014 suggests increased spending on the part of the Iraq government may have failed to suppress internal violence. Despite increased Iraqi spending correlating with positive results up to 2011, the decrease in U.S. funding may have left the country ill prepared to handle an eventual surge in violence. Enemies of the Iraqi government, like the Islamic State, may have also seen decreased U.S. funding as a sign of decreased political will that facilitated bolder military operations after the U.S. drawdown. If the rise in deaths and Iraqi government spending is followed by a period of relative peace and declining deaths tolls, which appears possible considering recent gains against the Islamic State,[112] this data may still support continued high spending. Questions regarding the relative value of U.S. spending compared to Iraqi government spending remain to be answered. More retrospection is needed with the ongoing conflict in Iraq, but not yet available.

Furthering the Case: Expenditure During the War in Afghanistan

At first glance, spending patterns in Afghanistan appear quite similar to those in Iraq. The war has followed similar spending patterns though delayed by the pace of

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[110] Andrew J. Gawthorpe, "All Counterinsurgency is Local: Counterinsurgency and Rebel Legitimacy" *Small Wars & Insurgencies* 28 no. 4-5, (2017): 844, Doi: 10.1080/09592318.2017.1322330

[111] "Iraq Profile – Timeline," (BBC: October 3, 2018). https://www.bbc.com/news/world-middle-east-14546763.

[112] Liz Sly, "ISIS at a crossroads," *Washington Post* (December 24, 2019).

operations relative to Iraq. In 2009, a troop surge announced by the Obama administration was predictably followed by a spike in spending. In 2011, the peak year of spending on combat operations, a "drawdown" was announced. The drawdown was deemed complete by 2014.[113] During this period, spending began to decline and the downward trend continued until levelling off in 2016. The U.S. has spent more than the Afghani government by a magnitude of 100 or more on an annual basis.
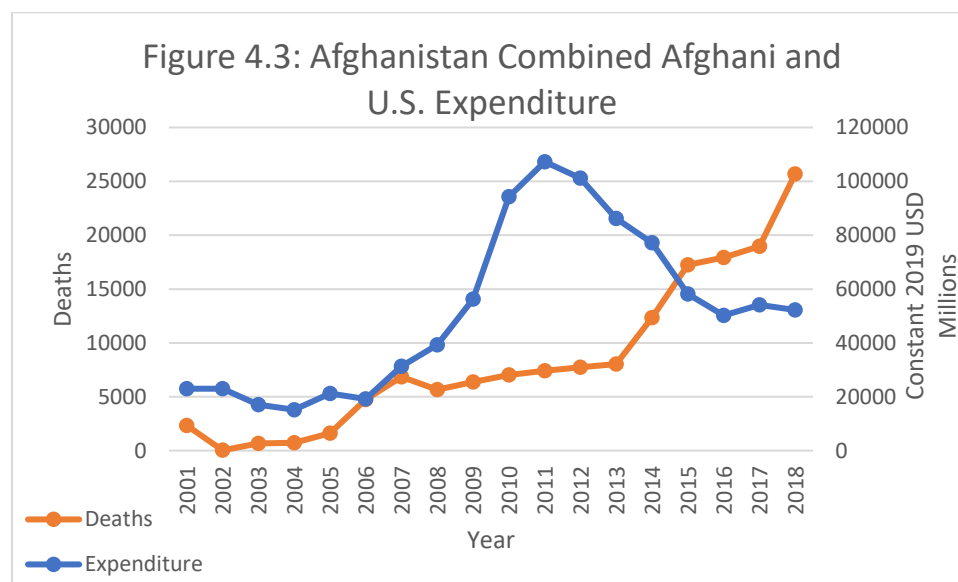
Figure 4.3: Afghanistan Combined Afghani and U.S. Expenditure

Author compilation from: Stockholm International Peace Research Institute and the Uppsala Conflict Data Program. Individual figures for U.S. expenditure in Afghanistan and Iraq from Amadeo, Kimberly. "Cost of the Iraq War, Its Timeline, and the Economic Impact." *The Balance* (August 5, 2020). And; Crawford, Neta C. "Costs of War." Watson Insititute: Brown University, 2018.

Of particular note in Figure 4.3 is not the spending, however, but that in 2014 deaths spiked significantly and have continued to tend upwards since. Although this would seem to confirm the idea that low spending tends to exacerbate insurgent violence, it is confounding in light of the Iraq chart of U.S. expenditure, where spending decreased along with deaths. With U.S. spending stripped away, however, a different pattern emerges.

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[113] Barbara S. Torreon, "U.S. Periods of War and Dates of Recent Conflicts," (Washington: Congressional Research Service, 2018): 7. https://crsreports.congress.gov/product/pdf/RS/RS21405/28.
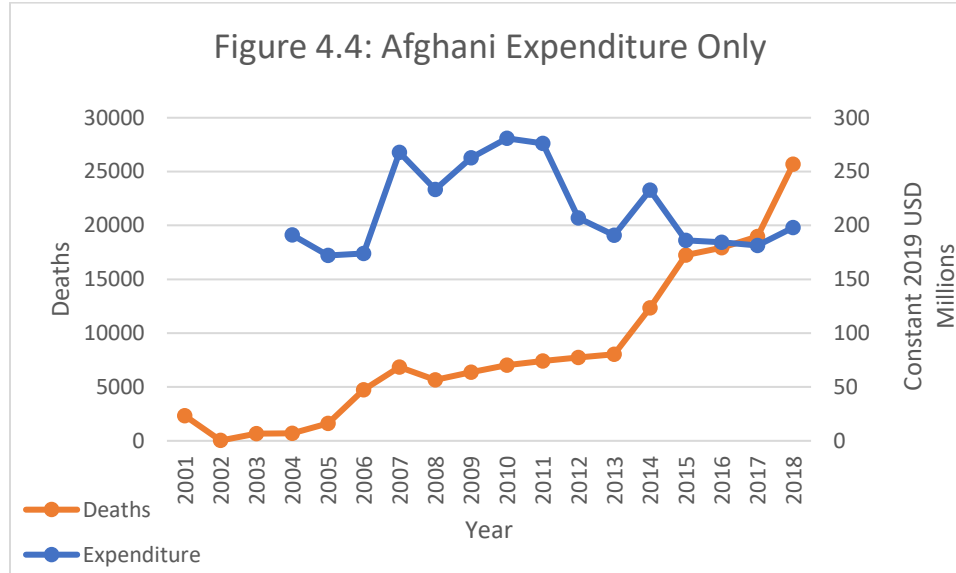
Figure 4.4: Afghani Expenditure Only

Author compilation from: Stockholm International Peace Research Institute and the Uppsala Conflict Data Program. Individual figures for U.S. expenditure in Afghanistan and Iraq from Amadeo, Kimberly. "Cost of the Iraq War, Its Timeline, and the Economic Impact." *The Balance* (August 5, 2020). And; Crawford, Neta C. "Costs of War." Watson Insititute: Brown University, 2018.

Unlike Iraq, which made increasing and sustained military investments as the U.S. completed its surge and began to withdraw, Afghanistan's spending decreased and levelled off. Predictably, as Afghani expenditure flattened out at lower levels, the death toll continued to trend higher. This again serves to further the case in favor of countries taking the lead on counterinsurgency efforts within their borders, investing heavily on the necessary operations and then sustaining their expenditure as Paul's "Paths to Victory" describes.[114]

While spending in Iraq and Afghanistan looks similar when U.S. expenditures are accounted for, it is actually quite different when looking at each country individually. Comparing figures 4.1 and 4.4 makes this clear. Iraq's pattern of spending while increasing and sustained at a high level is simply much greater than the spending seen in Afghanistan.

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[114] Christopher Paul, "Paths to Victory," (2014).

This fact alone may indicate great state capacity in Iraq, more urgency in the counterinsurgency efforts, or more access to expensive military equipment. Any one of these factors could account for Iraq's greater counterinsurgency successes in light of the country's higher level of spending. Certainly, there are factors that differentiate Iraq and Afghanistan that are not accounted for when considering spending alone such as geography, local culture, and government, but examining spending illustrates significant divergence between the countries' approaches to counterinsurgency. Taken together with cases examined in pervious chapters, however, the patterns here are remarkably consistent and provide an example of both the impact of high spending and low spending as they relate to conflict deaths during an insurgency.

Algeria: A Final Test

Algeria is yet another country that has battled a well-known insurgent movement. The Algerian Civil War persisted for nearly the entirety of the 1990s, ending around 1999[115] with some violence continuing into the early 2000s. Much like Afghanistan, Algeria itself is no stranger to insurgent and counter insurgent tactics having waged a notable insurgency during the country's war of independence against France.[116]

[115] James MacDougall, *A History of Algeria*, (Cambridge: Cambridge University Press, 2017): 322-323. doi:10.1017/9781139029230.

[116] Gillo Pontecorvo, *The Battle of Algiers,* (San Francisco, California, USA): Kanopy Streaming, 2014.
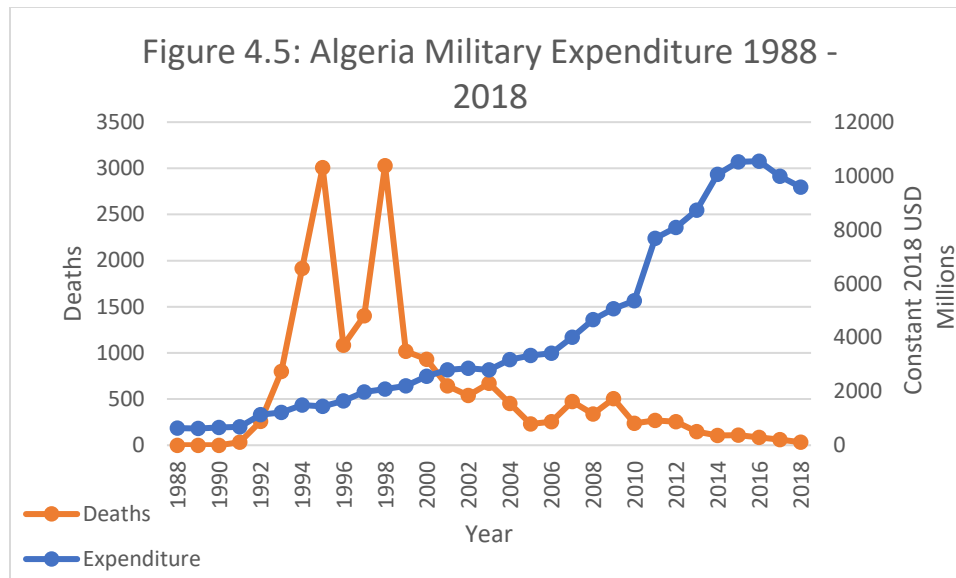
Figure 4.5: Algeria Military Expenditure 1988 - 2018

Author compilation of data from: Global conflict death data is from: Therese Pettersson and Magnus Öberg, "Organized violence, 1989-2019," *Journal of Peace Research* 57 no.4 (2020). Ralph Sundberg and Erik Melander "Introducing the UCDP Georeferenced Event Dataset," *Journal of Peace Research* 50 no.4 (2013). Global military expenditure data is from: Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," (Stockholm: SIPRI, 2020) https://www.sipri.org/databases/milex.

The pattern depicted in Figure 4.5 should at this point look familiar, once again mirroring data from other countries that have suppressed internal conflict. While overall spending has increased significantly over the past decade, reflecting larger global trends, this pattern has also correlated with suppressed and decreasing numbers of deaths associated with remaining insurgents active in the region.

A Congressional Research Service report, updated in 2020, attributes Algeria's relative stability since the 2000s to the country's "frequent counter-terrorism operations and bolstered… presence in border regions."[117] This aligns with both counterinsurgency best practices and the Algerian government's increased expenditure over this period. Algeria's stability and low rate of insurgent violence has occurred even as insurgency and terrorism have become fixtures in North Africa. This could be considered a testament to

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[117] Alexis Arieff, "Algeria," *In Focus* (Washington: Congressional Research Service, 2020): 2. https://fas.org/sgp/crs/row/IF11116.pdf

the country's high level of security, which is likely linked to their increasing military spending which has risen from around 3 billion dollars in 2002 to around 10 billion dollars in each of the past three years.

Conclusion

These cases, taken together, do suggest a pattern of correlation between a country's military spending and suppressing internal violence. This was previously observed in the cases of Colombia and Sri Lanka and appears again when looking at Iraq, Afghanistan, and Algeria. The cases of Iraq and Afghanistan also reinforce the idea that top heavy spending by countries like the U.S. can serve to hide trends in military expenditure that may otherwise be visible. While this remains to be proven on a global scale the two cases presented here offer a micro view of this theory that may be investigated more thoroughly in a study with a larger scope.

The Iraq case, while instructive in this instance should also be evaluated with caution. The data included above ends with the official U.S. withdraw but a distinct phase in the conflict emerged in 2014 causing a spike in deaths and expenditure. This outlier data would heavily impact the analysis if included. It appears to be too early to determine how this situation may be resolved by the Iraqi government with the conflict still ongoing and sustaining a high death toll and high expenditure for the additional years in which data is available. If Iraqi investment climbs higher and conflict is eventually suppressed this could further the arguments made above. If the violence remains unchecked, however, the Iraq case may no longer prove a suitable example once data becomes available for 2019, 2020 and beyond.

Many factors that may influence a country's military spending, conflict deaths, and counterinsurgency efforts are not examined here. While effective counterinsurgency is undoubtedly a lengthy and expensive proposition and countries that sustain high military budgets appear to have better counterinsurgency results, there are still many external factors at play. One crucial element that is not examined here is how money is being spent. Are countries training troops, dropping bombs, or financing expeditionary campaigns? While it can be assumed that countries like Iraq and Algeria, which have significantly reduced violence, are spending on appropriate interventions, this would need to be studied separately.

Broadly speaking, it makes sense that spending by the local government would pay significantly higher dividends in the delicate world of counterinsurgency operations. Given the need to surgically cut off insurgents from their lines of support, an activity which requires significant knowledge of local terrain, both physical and cultural, along with the need to sustain operations over a long period, indigenous forces clearly have an advantage even with relatively modest budgets. It is surprising, however, that such high levels of U.S. spending in Iraq and Afghanistan appears to have had such little impact on the death tolls of these conflicts. Further analysis of exactly how funds are applied will help elucidate this apparent discrepancy.

Despite the broad analysis offered above, the ability to separate military expenditure here by both country and year is enabled by high quality, publicly available datasets that are accessible and useful thanks to modern technology. Data for military expenditure for the Algerian War from 1954 to 1962, for example, is not available in this

dataset, though it would be useful for this analysis.[118] Similarly, some expenditure data and all conflict death data are based on estimates. This type of data is improving over time, however, making studies like this one increasingly viable in the future. This relates to Blattman's idea of "micro datasets" which, one hopes, will increasingly allow scholars to refine the study of complex topics like war. These micro datasets should enable further breakdowns of economic data, including military expenditure, to allow for more nuanced analysis of spending in conflict which may better demonstrate how conflict is impacted by spending and what additional factors drive up spending and violence independently.

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[118] See relevant data in: Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," (Stockholm: SIPRI, 2020) https://www.sipri.org/databases/milex.

Chapter Five

Conclusion

The most general finding that applies across all three chapters of this study is that high levels of global military expenditure do not appear linked to high levels of conflict deaths over the past 30 years. Whether looking at a specific procurement program like Foreign Military Sales; the military budgets of individual countries; or a specific conflict type, such as insurgency, most of the cases examined here suggest that high military spending has suppressed conflict deaths to some extent, at least since 1988. This study does not eliminate the possibility that higher military budgets may be associated with higher conflict deaths when controlling for additional variables or examining a longer time horizon.

The finding of slight negative correlation between military spending and conflict deaths must be caveated given that this study could not control for the numerous intervening variables and the existence of certain exceptions, such as countries like Ethiopia with low military budgets. The use of charts to highlight trends between military spending and conflict deaths did allow for the identification these exceptions and for the

qualitative analysis of broad macro data. A regression analysis is the logical next step as it would allow for the control of intervening variables and could more thoroughly examine global trends on a country-by-country basis. Having observed the divergence between increasing military spending and decreasing conflict deaths across the diverse cases examined here, it seems likely that the pattern observed in this study will hold up to stronger statistical scrutiny.

Among the cases examined, the most notable relationship between military expenditure and conflict deaths is observed in countries fighting insurgents as discussed in chapters two and three. Although correlations were often weak, the cases of insurgency presented in chapter three did show reliably negative correlations between military expenditure and conflict deaths across the board. The only exception was with Afghanistan where expenditure levelled off and deaths predictably rose. This only serves to strengthen the conclusion that high military spending may be particularly significant to counterinsurgency operations.

Examining U.S. spending in Afghanistan and Iraq also highlights the importance of observing military spending patterns without the U.S.'s top-heavy influence. Particularly in the case of Iraq, viewing the data without U.S. spending told a very different story. Given the high levels of U.S. spending globally, as well as the U.S.'s influence on numerous conflicts through programs such as Foreign Military Sales and Direct Commercial Sales, similar effects may be occurring in many countries. The global military data itself may also be distorted because of the outsized spending of superpowers like the U.S. and China. Although it would be almost impossible to completely control for the influence these heavyweights may have on other countries' military budgets, acquisitions,

and conflicts, research on the spending patterns of lower spending countries seems likely to uncover trends that cut against assumptions of the impact of military spending and reveal both benefits and detriments inherent in low spending regimes.

The U.S. Foreign Military Sales program was the most specific policy mechanism examined. Fitting with the broader findings of this study, deliveries of military aid rarely precede increases in deaths. Depending on how one interprets the data provided in chapter two, Foreign Military Sales deliveries could either be viewed as providing a deterrent that helps end conflict or generally arriving too late to be a significant factor in most of the cases examined. The several cases presented here suggest the possibility that high numbers of conflict deaths in a country or region may encourage increased utilization of Foreign Military Sales. Having primarily examined years in which countries received military aid rather than when they signed agreements, this study is not well positioned to assess this theory. Anecdotal evidence suggests this does occur, at least occasionally, as in the case of Georgia, which had high engagement with the Foreign Military Sales program during the Chechen War.

It can be argued whether the Foreign Military Sales program is living up to its stated goal of "[promoting] world peace"[119] but the cases examined in this study suggest it is a safe policy tool in the short-term given the tendency of deliveries to precede reductions in conflict deaths or occur after a conflict has already begun to wane. Consideration should be given, however, to the longer-term impacts of such sales. Although the U.S. may aim to control the future use of weapons sold through such programs, there is undoubtedly a loss of accountability inherent to providing weapons to foreign countries. This study did not

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[119] Defense Security Cooperation Agency (2020).

address long-term Foreign Military Sales impact or attempt to track the movement of weapons after delivery. These weapons may end up sold to other countries, lost in battle, or otherwise appropriated for a variety of uses, potentially at the expense of human rights. As a result, policy regarding such programs should be viewed cautiously and should take the long-term outlook of such sales into account. More detailed studies of Foreign Military Sales could work to trace individual shipments over a longer time horizon, potentially even the entire service life of a procurement, to determine the impacts this program has in the years beyond the initial deliveries.

Analyzing countries' military budgets raises similar concerns. This study observes a general trend in increasing military budgets over the past 30 years but could not trace how these increases are being spent or how that may influence the relationship between such spending and conflict deaths. While it is assumed here that increased budgets lead to increased military capability, it could just as easily be assumed that increased capability, whether through training, procurement of technology, or increasing force size would require higher overall costs to maintain. Therefore, small increases in capability could have bigger long-term impacts on military budgets that may increase over time as maintenance costs increase either due to the age of assets or inflation. This would make high military budgets an unlikely driver of conflict deaths as high costs would largely be tied to static capabilities. Although granular budget data may not be available for all countries examined here, further studies examining how countries' military budgets are structured as well as countries' spending in a variety of security environments would help eliminate much uncertainty regarding the outcomes of military spending.

Situating these cases within the global economic picture is also important. Considering global military spending in terms of real dollars spent compared to spending as a percentage of GDP tells two different stories. This study focused on real spending based on constant dollars, which has increased since 1988. As a percent of GDP, military spending has dropped from a high of 3.5 percent in 1988 to just below 2.5 percent in 1995, a number that has stayed relatively consistent since.

Figure 5.1: Global Military Expenditure 1988 – 2016 [120]
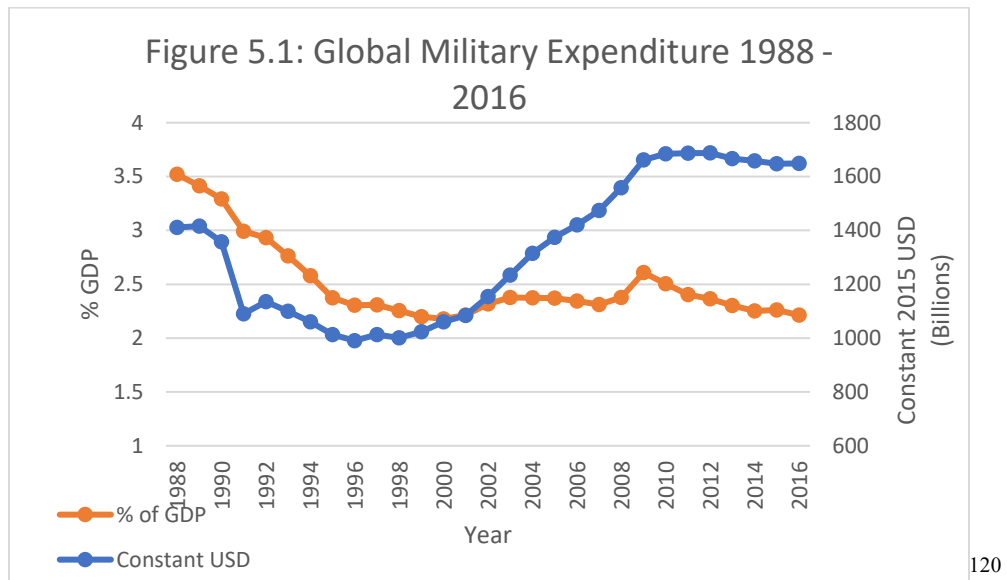
This suggest that globally, countries may spend more on their militaries as their budgets grow while keeping overall expenditure pegged at constant levels. Expanding this data, however, would show that spending, as a percent of GDP was higher during the Cold War and higher still during World War II. This suggests that countries' military spending relative to their total economic output is what truly reflects their political reality. Although World War II would be an outlier in death data relative to what is explored in this study, it is likely not a coincidence that the conflict and its high death toll aligns with high spending

[120] Data from: "Military Expenditure (% of GDP), 1960 to 2017," and "Military Expenditure, Constant 2015 US$, 1960 to 2016," *Our World in Data*. Accessed October 9, 2020. https://ourworldindata.org/military-spending.

as a percent of GDP.[121] It is also not likely coincidental that global military spending

dropped noticeably in 1991 as the Soviet Union dissolved in December of that year.

It is worth noting that NATO allied nations are encouraged to "commit a minimum of

two per cent of their Gross Domestic Product (GDP) to spending on defence [sic]."[122] This

suggests that two percent of GDP is considered at least a minimally optimal defense

expenditure and that countries should expect to increase their spending in terms of real

dollars as their GDP increases. This also suggests that maintaining overall spending of two

percent of GDP within NATO member countries is considered a desirable target even if

U.S. spending were to decrease. Although it is far from this study to determine or

recommend an optimal target for military spending, this two percent figure does emerge as

a reasonably achievable floor that appears likely to maintain the current status quo in terms

of global stability with an annual conflict death rate at or around 100,000 people per year.

It may come as no surprise that the burden of conflict deaths over the past 30 years

has fallen hardest on the poorest countries, particularly in Africa. This has of course

coincided with spikes in military spending, as described in chapter three. Rwanda spent

nearly six percent of GDP during the Rwandan Civil War and Ethiopia spent around 10

percent of GDP in both 1989 and 1999.[123] Interestingly, both countries now spend below

even the average for other low-income countries. Although this could benefit these

countries by freeing up funds for important human development projects, in light previous

findings this low spending may also create a dangerous security vacuum that either will

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[121] Exact figures are not available but averaging military expenditure as a share of GDP data from *Our World in Data* suggests military expenditure in 1945 was approximately 46% of global GDP. Averaging deaths from the same source suggests a global death toll of about 3.5 million in that year.
[122] "Funding NATO," North Atlantic Treaty Organization, (May 5, 2020). https://www.nato.int/cps/en/natohq/topics_67655.htm.
[123] See note 117.

need to be filled by concerned allies at their own expense, or could lead to further conflict and instability due to chronic underfunding of these countries' military needs. Future studies should address what could be either the inability or unwillingness of the poorest countries to fund their militaries. While it may not be the most pressing concern for some of these countries, leaving the poorest countries poorly defended seems to put them at a comparative disadvantage in a world where countries are averaging two percent expenditure of their rising GDP on defense and security.

The discussion of conflict in places like Africa or the Middle East also raises numerous issues of intervening variables not accounted for in this study. While there was significant correlation between military spending and conflict death in Ethiopia, for example, this may not be causative or may reflect reverse causation. It is possible the impetus for conflict in this or any other conflict could be rooted in factors that may also influence a country's ability or willingness to spend on their military. Income inequality may be exacerbated by an economic variable such as poor trade policy, leading to conflict while simultaneously reducing a country's ability to invest in its military. As a result, a country may reduce its military expenditure and simultaneously find itself dealing with a conflict though neither outcome caused the other. Similar scenarios could play out with a variety of impacts caused by all manner of additional variables. These types of complex relationships could not be captured in this study but future examinations of economic drivers of conflict could control for variables such as local economic conditions, availability and types of arms, and political systems to paint a more complete picture for specific countries.

Finally, the opportunity costs of the expenditures must be addressed. As discussed at the outset and by scholars such as Askari,[124] the large pool of funding set aside for military expenditure could be applied to human needs where it may have greater and more immediate impact. Food and energy security, healthcare, and education all stand out as areas where additional funding could be immediately beneficial for many people around the world. While Askari's work seems to imply that reducing conflict would be likely to free up the funds currently devoted to it, the conclusions of this study suggest this may not be the case. Given that the current regime of high military spending has persisted during a period of relative global peace and stability with low and mostly stable rates of conflict deaths, it is possible that the current military spending paradigm is providing a net benefit. Particularly considering militaries' ever decreasing share of global GDP, it is hard to view military spending as a major detractor for spending on other programs and even harder to recommend a significant reduction in this spending.

It should be taken as a given that some level of military spending is inevitable. At the very least, among hegemonic powers, the armament of one begets the armament of others and there is no plausible scenario or precedent for global demilitarization in the current geopolitical context. As a result, even the prospect of reallocating some defense spending to other endeavors would fall short of the total GDP currently allocated to militaries. This makes the prospect of reallocating these funds somewhat less desirable simply because, even in the most optimistic scenarios, any additional money would fall below the two percent global average. Countries with higher military budgets may be able

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[124] Hossein Askari, *Conflicts and Wars,* (2012).

to squeeze out slightly more and countries spending less would get less. This still fails to account for the risks.

Any major reduction to military spending, especially on a global scale, has the potential to alter the security environment. While this could tip the balance in favor of peace, it could also push countries towards greater conflict. At the cost of two percent of GDP, this is likely a risk few policy makers would willingly take and the evidence in this study does not make it clear that doing so would have any benefit. A reduction of military expenditure to a global total of 0.5 percent, an undoubtedly lofty goal, would return about 1.5 trillion dollars to state treasuries. While substantial, given that the greatest share of this money would go to the world's largest economies, the impacts would likely be felt only minimally. In the worst-case scenario, however, in which the resulting shake up of global military power causes a conflict on the scale of World War II, this could come at the expense of millions of lives. Critics can rightly argue that such conflicts would not be possible without high levels of military spending but there seems to be no better motivator for increased spending than the outbreak of war and current spending practices appear to have made those instances relatively small and isolated.

Once again, due consideration should be given to countries which do not factor heavily on these global debates over military spending. The countries hit hardest by conflict deaths over the past 30 years, such as Rwanda and Ethiopia, and more recently Yemen and Syria, find themselves in a unique position. With weak economies and fluctuating military budgets, these countries remain poorly positioned to prevent conflict and are likely to be heavily burdened both financially and in terms of human life if one should erupt. This represents perhaps the greatest opportunity for the application of the current paradigm of

military expenditure. While reducing spending may be too risky, and idling such expensive armies may be criticized as wasteful, militaries could be used to help stabilize and protect at-risk regions thereby providing benefits for non-military development while maintaining deterrent forces and minimizing waste.

While such proposals are fraught with political, legal, and even ethical challenges, they are not without precedent. One need only look to the post-World War II defense regimes in Germany or Japan to see the positive outcomes of defense arrangements that kept conflict deaths low as both countries grew their economies dramatically.[125] While these cases are not perfect analogies for how security assistance could be applied in strained regions around the world today, finding innovative ways to gain increased benefits from current military expenditures is likely to help placate critics of high spending regimes and help proponents maximize the efficiency and benefits of their defense dollars. Satisfying both groups would be to win the money war.

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[125] James Dobbins et al., "Post–World War II Nation-Building: Germany and Japan,"" In *After the War: Nation-Building from FDR to George W. Bush*, (Santa Monica, CA: RAND Corporation, 2008): 16-17. http://www.jstor.org/stable/10.7249/mg716cc.10.

Appendix: Data Summaries

Correlation Range Key:

Range (-)	Correlation
0.00 - 0.19	None
0.20 - 0.50	Weak
0.51 - 0.69	Moderate
0.70 - 1.00	Significant

Data Summary for Chapter Three:

Region/ Country	Average Expenditure (Billions USD)	Average Deaths	Primary Threat	Correlation	Correlation type
Global	1463	81409	*	-0.11	None
Africa	26.4	15270	*	-0.35	Weak
Rwanda	0.087	1797	Internal	0.13	None
Ethiopia	0.581	7888	External	0.77	Significant
Middle East	106	14810	*	0.71	Significant
Israel	14.7	9873	External	0.62	Moderate
South Asia	46	6279	*	-0.29	Weak
Sri Lanka	1.3	1975	Internal	-0.06	None
Latin America	44.4	1349	*	-0.48	Weak
Colombia	6.3	857	Internal	-0.82	Significant
Note: Rwanda figures do not include genocide.					

Data Summary for Chapter Four:

Country	Average Expenditure (Billions USD)	Average Deaths	Correlation	Correlation Type
Iraq	3.4	4800	-0.94	Significant
U.S.	86.8	*	-0.24	Weak
Combined	89.9	*	-0.28	Weak
Afghanistan	0.216	8409	-0.22	Weak
U.S.	51.2	*	0.36	Weak
Combined	51.4	*	0.36	Weak
Algeria	4.2	674	-0.53	Moderate
Note: Iraq 2003 - 2017; Afghanistan 2004 - 2018; Algeria 1991 - 2018				

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Curriculum Vitae

Oliver Osborne Cole
Lieutenant, United States Coast Guard

Active duty Coast Guard officer with seven years of leadership experience across a range of operational assignments including icebreaking, law enforcement, military readiness, and logistics. Service includes assignments on the Great Lakes, North Atlantic, and with the United States Navy Fifth Fleet in the Arabian Gulf. Commanding Officer of Coast Guard Cutter Shrike from 2017 to 2019.

Education

2012	**University of Cambridge** Certificate in English Language Teaching to Adults (CELTA)
2006 – 2010	**Goucher College**, BA in English Literature Magna Cum Laude with Honors in English **Thesis title**: "Maps and Plans: An Introduction to the Discovery of One of Special Collections and Archives' Most Puzzling Artifacts" **Thesis Supervisor**: Professor Arnold Sanders

Experience

2014 – Present	**United States Coast Guard** Held roles as Commanding Officer, Executive Officer, and Operations Officer on three classes of Coast Guard ships. Oversaw missions including domestic and international law and treaty enforcement, military patrol and escorts, and domestic icebreaking.
2013	**Kaplan International** Provided English language instruction for adult students with areas of focus on business English and preparation for TOEFL, GMAT, and GRE.
2010 – 2012	**United States Peace Corps** Managed water, sanitation and hygiene projects.