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Under the influence Of arms: the foreign policy causes and consequences of arms transfers

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UNDER THE INFLUENCE OF ARMS – THE FOREIGN POLICY CAUSES AND CONSEQUENCES OF ARMS TRANSFERS

by

Spencer L Willardson

An Abstract

Of a thesis submitted in partial fulfillment
of the requirements for the Doctor of
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Thesis Supervisors: Professor Cameron G. Thies
Professor William M. Reisinger

ABSTRACT

How are arms export choices made within a state? In this dissertation I use a foreign policy analysis framework to examine this question. I focus on examining each of the three primary levels of analysis in international relations as it relates to the main question. I begin with a typical international relations level and examine the characteristics of the two states that dominate the world arms trade: The United States and Russia. I then examine the full network of relations among all states in the international system that are involved in the sale or purchase of arms. To do this I use an Exponential Random Graph Model (ERGM) to examine these relations, which I derived from data on arms sales from the Stockholm International Peace Research Institute (SIPRI). I examine the arms sales in each decade from 1950 through 2010. In order to answer the question of how arms decisions are made within the state, I focus my inquiry on the United States and Russia. It is these states that have the practical capability to use arms transfers as a foreign policy tool. I examine the foreign policy making mechanisms in each of these states to determine how arms transfers can be used as a foreign policy tool. I examine and the bureaucratic institutions within each state and come up with a state ordering preference for how arms decisions are evaluated in each state. Finally, I use case studies to examine arms relations between the both the U.S. and Russia and three other states in each case. The other states were selected based on the pattern of sales between the two countries. I examine these sales to determine the impact of bureaucratic maneuvering and interest politics on the decision-making process within Russia and the United States.

I find in my network analysis that the traditional measures of state power – military spending, regime type, and military alliances – do not account for the overall structure of the arms sale network. The most important factors in the formation of the arms sale network in each of the six decades that I study are specific configurations of

triadic relations that suggest a continued hierarchy in the arms sale network. I find in my case study chapters that a simple model of state interest as a decision-making rule accounts for the decisions made by the different bureaucratic actors in the U.S. Russian arms sales are driven by a state imperative to increase Russia's market share, and there is high-level involvement in making different arms deals with other countries.

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CERTIFICATE OF APPROVAL

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PH.D. THESIS

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To Yulia: my strength and inspiration, and to our four lovely lady-kids who missed their Papa during the busy times

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The help from those (and others who I am sure I have missed) listed above made this dissertation better. The strengths are theirs, while the mistakes are mine.

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CHAPTER 1 – INTRODUCTION TO THE PROBLEM OF ARMS SALES

The purpose of foreign policy is not to provide an outlet for our own sentiments of hope or indignation; it is to shape real events in a real world.

-John F Kennedy

Nations have no permanent friends or allies, they only have permanent interests.

-Lord Palmerston

The Arab Spring began in December 2010 and by March of 2013 had led to regime change in the states of Egypt, Tunisia, and Libya. It also led to concessions on the part of Jordan's government. This awakening of sentiment resulted in severe and prolonged civil unrest and repression in the country of Syria beginning in March of 2011. While the world at large condemned the actions of the Syrian government, the Russian government seemed reluctant to do so. Toward the beginning of the crisis in the fall of 2011 a Russian official was quoted as saying:

"Syria remains Russia's only ally in the Middle East. We abandoned the rest either during perestroika or during the recent Arab revolutions. We even betrayed some - like Libya or Egypt, for example" (Kuchma 2011).

Russian Foreign Minister Sergei Lavrov called on the U.N. to continue to support proposals by Syrian president Bashar Assad: "As for Syria, it is inadmissible to boycott proposals on a national dialogue, stir up confrontation and provoke violence, while neglecting albeit late but still achievable reforms proposed by President Bashar al-Assad" (Lavrov 2011).

Even nearly nine months into the Syrian uprising, Russia opposed any arms sanctions to be placed on Syria by the world community. Russia is Syria's major arms supplier, with contracts worth at least $4 billion as of 2011 ("Russia Opposes Arms Embargo on Syria - Lavrov" 2011). Besides the arms relationship with Syria, Russia also has a strategic relationship with Syria. Russia's only foreign naval base is located in Syria, and Russia began modernizing the port shortly before the protests against Assad

began ("Syria and Russia: Wait and Sea" 2012). This expansion of the port was undertaken to allow for more maneuver options for the Russian fleet in the region.

Why does Russia continue to stand against both the world and more importantly the Arab League, on the issue of Syria? Does Russia's arms relationship with Syria make it more prone to act against world opinion than it would otherwise?

This particular case raises a few interesting questions about the nature of a state's relations with other states. In international relations scholarship in general we tend to see state preferences as being relatively fixed. Within the foreign policy analysis subfield, this idea that states have fixed interests is not held as tightly. Scholars in this tradition often examine the personality of individual leaders and how that affects decision-making by states (Dyson 2001; Renshon 2008; Walker, Schafer, and Young 1999). Foreign policy behavior by states is usually thought of as being relatively sticky[1] (Lebo and Moore 2003, 20). However, dramatic events can cause states to change their positions relatively quickly.

Rosati et al (1994, 4–39) outline the reasons why the study of foreign policy change is generally understudied within the foreign policy discipline. Much of their review relies on the work of Gilpin (1981) who argued that the study of change in foreign policy is difficult to accomplish when the discipline is young. He argued that the "statics of a field of inquiry" are required to be understood before it is possible to proceed to a study of its dynamics (Gilpin 1981, 4). Gilpin also argues that a focus on middle range theory is detrimental to the study of change in foreign policy outcomes, or foreign policy restructuring as it is termed by Rosati et al. States do change their policy for a number of reasons. Goldmann (1988) outlines a series of reasons why change in foreign policy may be difficult. He uses the metaphor of different stabilizers that affect how a state will continue to interact with the other states in its environment. His theoretical sketch

[1] Or in other words, the policy of states tends toward the status quo.

includes administrative, political, cognitive, and international stabilizers of foreign policy. Volgy and Schwarz (1994, 26–36) characterize these stabilizers as "webs of restraint" which they say are indicative of the complexity and linkage in global politics. I will return to these ideas of structure, complexity, restraint, and stabilizers in the next chapter.

One question that arises from this example of Syria and Russia is whether arms transfers affect the "stickiness" of foreign policy by states? This question is preceded by a question about how "sticky" a state's relationships are in general. How does the structure of a state's arms production capability affect the state's willingness to change its foreign policy behavior in light of changed international conditions? This question is one that is potentially very difficult to answer as the external conditions of the international state system tend to change slowly. A more permanent question, and one that has not been sufficiently addressed by the international relations or foreign policy analysis literature, is how domestic military industrial considerations affect the foreign policy behavior of arms exporting states.

The Puzzle of Arms

Military hardware is a visible and quantifiable measure of the present coercive power of states. The CINC score from the Correlates of War project (2005) represents the potential resources that a state has to marshal in times of conflict. This measure does not necessarily represent the ability of a state to wage war against another state right now. Realist views of international relations have not adequately addressed the logic of states trading coercive capacity between one another. This is especially true of the neorealist (or structural realist) paradigm. At its core, the neorealism advanced by Waltz (1979) has identified the anarchic nature of states, and the subsequent self-help nature of relations between states as the key component in understanding the international system. However,

there is not agreement among scholars about the nature (or inevitability) of this anarchy in the international system. Wendt (1992), found the argument that anarchy is a fundamental feature of the international system problematic. If states exist in anarchy, the sale of weapons between them raises some questions about the nature of that anarchy.

States do sell arms to one another. That empirical fact is the starting point for the remainder of this project. Research by scholars in many different fields has offered many potential explanations as to why states choose to arm other states. Some of these explanations focus on the economic motivation for firms to sell weapons (Levine, Mouzukis, and Smith 2003), the structure of the international arms market (Baugh and Squires 1983), arms as foreign aid instruments (Blanton 2005), arms as part of a state's extended deterrence strategy (Fearon 1994; Huth and Russett 1993; Huth 1988; Signorino and Tarar 2006), as a means of changing the nature of conflict (Kalyvas and Balcells 2010; Strazzari and Tholens 2010), as a reactionary contest between powerful states (Kinsella 1994; Mintz 1986), as an essential part of alliance ties between states (Sprecher and Krause 2006), as a normative problem for the international community to resolve (del Carmen Garcia-Alonso and Hartley 2003; Levine and Smith 1995; Lumpe 2000; R. Smith and Udis 2003), and as a fact of the international landscape which is worthy of study on its own merits (Baugh and Squires 1983; Gerner 1983; Shichor 2000).

Within the international relations literature arms figure prominently in a long list of areas. The sale of arms is related to a fundamental aspect of the international system – the survival of the states that make up that system. For some realist scholars the issue of weapons touches on the always salient issue of power. These scholars theorize that states balance against perceived threats (Walt 1985), and they do so based on intentions and on offensive capability of the state they are balancing against. Arms transfers offer importing states the ability to augment their own "power to hurt" (Schelling 1966, 2–7). From the supply side, states can use arms transfers as a way to maintain their own

domestic arms industries (Hartley and Martin 2003) which are, in turn, an important part of a state's power capabilities and potential future capabilities.

One fundamental problem with the way that arms transfers are treated in the literature is that they are essentially taken for granted from a theoretical standpoint. A brief examination of two of the main theoretical views within international relations illustrates the problem of making theoretical assumptions about the transfer of weapons based solely on a set of "isms" (Lake 2011). Here I contrast realism with neoliberalism.

For realists, arms transfers can perhaps make sense because they represent power, and a way to transfer capabilities that can help to balance against other powerful states. For most realists, however, balancing works because alliances are fluid and can be changed as capabilities, and potential capabilities within a state, change. Arming another state changes that state's capabilities rather than relying on a relatively fluid alliance structure to change the balance when the more permanent capabilities change. This challenges the strict "self-help" assumption made by many realists and changes the concept of balancing accordingly.

Purely economic arguments (from the neoliberal tradition, for example) for weapons transfers also suffer from similar challenges. If arms transfers are simply a matter of trade then there would be no need to set up special export agencies within states to monitor and approve those transfers. There would not be calls from nongovernmental organizations (NGOs) and intergovernmental organizations (IGOs) to control the flow of arms between states (Betts 1980; R. Smith and Udis 2003).

States do trade weapons with other states – but not freely. The two largest arms trading states – the United States and Russia – both have agencies and procedures in place to ensure that arms trades are more beneficial than harmful to the state. Thus, arms occupy a middle territory in the international relations literature – they are instruments of "hard power", the primary currency in the international relations literature – and yet they are treated as simply another variable in most international relations literature. Decision-

makers within states treat the sale of weapons as a significant political act, and most states have a control agency/mechanism in place to regulate the sale of arms. The foreign policy reality of arms transfers seems to fall in the middle ground between the two broad theoretical positions noted above.

However, it is this middle-range position of arms transfers that makes arms an interesting subject of study. There is little doubt that the transfer of arms between states *should* matter. There are few answers, however, as to exactly how these transfers *do* matter. Many potential areas exist to explore the idea of how arms transfers between states do matter. Some of the ways in which this question has been addressed were noted above. This project is not primarily concerned with arms transfers as a dependent variable – exploring the factors lead states to either export or import arms, for example. While that is an interesting question for the overall international relations and economics literature, it is de-facto acceptance of this norm by states and the effects of these arms transfers that motivate my research. *How are arms export choices made within a state? What affect do arms transfers have on other foreign policy outcomes? What affect do other foreign policy choices have on a state's arms export policies?*

In this dissertation project, I attempt to answer the broad questions above by outlining a midrange (Moravcsik 2003, 136) theoretical framework of foreign policy and arms transfers. A central theme of this research is that the study of arms transfers provides an excellent medium for the study of traditional international relations levels of analysis. It also occupies an interesting middle ground between grand theories of power and balancing, and more detailed descriptions of states' foreign policy. The complexity of the issue means that the approach taken to understand these relations must be capable of accounting for these different aspects of the international environment. It also means that I will be sacrificing some degree of parsimony in explanation.

Here is a brief outline of what follows in this chapter. First, I offer a review of the previous research on arms transfers as an area of study. In this outline I focus on the

arms literature as a phenomenon rather than arms as an auxiliary part of a different IR project. Next I discuss how I situate the present study in a research tradition – foreign policy analysis – that seems best suited to the questions that I am asking. Finally I discuss the issue of levels of analysis and how this study self-consciously attempts to account for all three of the standard levels of analysis. These three components – past literature, a research tradition that is focused on the type of question asked here, and an attempt to address all the levels of analysis in this empirical study – form the overall framework for the research I present in subsequent chapters.

Previous Research on Arms Transfers

The idea that arms transfers can be used as an indicator of foreign policy is not new. Early projects in arms transfers started with the explicit assumption that arms transfers were themselves an expression of policy. One of the first reports from the Stockholm Peace Research Institute (SIPRI) noted that military equipment sales require export licenses and are often "considered at the highest levels of administration" and it is "…therefore reasonable to assume that each arms transaction reflects a decision on the part of the government of the supplying country, and the overall pattern of arms supplies reflects a government policy towards the arms trade" (1975, 21). This same volume distinguished three broad patterns by suppliers of arms to third world countries. These categories were hegemonic, industrial, and restrictive (SIPRI 1975, 21–26). Hegemonic suppliers (the U.S. and U.S.SR) use arms transfers both to "…dominate other, dependent countries" and as a "…means to influence a smaller country in minor matters" (SIPRI 1975, 24). Industrial suppliers are mainly concerned with using exports to maintain domestic defense production in the exporting country. Restrictive supply is a pattern of supply to states where the supplier does not become involved in local or international

conflict (1975, 24). These broad patterns were empirically tested using complex "fuzzy set" analysis by Sanjian (1991) who found that these overall broad patterns held.

Krause (1992, 5–7) characterized three broad trends in arms transfer literature up to 1992. The first period was the interwar period which was characterized as "…polemical, partisan, and prescriptive analyses of the evils of arms merchants." A second wave of arms transfer research emerged in the mid 1960's and lasted for about a decade. This period was characterized by the first systematic and rigorous analyses of arms transfers. The third period began roughly in the mid 1970's and was characterized by an explosion of the arms trade and a corresponding expansion of the treatment of arms transfers in the academic literature. However, these studies were largely based on case studies and made little effort to "…situate arms transfers in the broader fabric of relations between states."

Studies on arms transfers can be classified into three primary areas: the effect of arms transfers on recipient state behavior, the effect of arms transfers on intrastate conflict, and the effect of arms transfers on interstate conflict.

Recent studies have sought to find a link between arms transfers and recipient (clientele) behavior. Blanton (1999) examined different factors that affect a country's human rights behavior, and posited that arms transfers provided the means for regimes to brutally repress political rivals. She found that there was a statistically significant relationship between arms imports and a country's poor human rights record. Blanton (2000) also examined U.S. foreign policy goals and the patterns of U.S. arms sales abroad and found that the U.S. followed a policy of abstaining from arms transfers to states with poor human rights records.

Meernik et al. (2004) conduct a similar test of U.S. foreign aid[2]. They explicitly test for systemic-level variables and use data that extends through the end of the Cold

[2] They include arms aid in their measure of foreign aid with the argument that the two types of aid are substitutable.

War. One hypothesis tested is whether or not security concerns were still top priority in the way that aid is distributed by the United States. Security concerns were measured through data on alliances, U.S. troop presence, and borders with U.S. ideological opponents. They found that foreign aid distribution is highly correlated with security concerns.

These tests of arms aid indicate that arms are used as political rewards in much the same way as other types of aid. Lai (2003) examines similar data. He uses more refined economic indicators that can account for the large disparity in aid amounts across countries and tests for bureaucratic inertia in the gatekeeping stage of the model. More importantly he updates the security goals of the U.S. as the world shifts from the bipolar Cold War to a more unipolar world inhabited by states that are friendly to U.S. interests and "rogue states." He finds that contrary to the conclusions of other authors, security is still a driving factor in the allocation of aid by the United States. If arms aid (including arms transfers at discount prices) is substitutable for other types of aid, and aid is predicated on security concerns, then it follows that patterns of arms transfers by states should change as the security concerns of the state change.

The second area in which arms transfers have been studied by political scientists is on the effect that arms transfers have on intrastate war. Jackson (2010) examines the role of legal arms in civil conflict. He concludes that the vast majority of weapons used by rebel groups in intrastate conflict are obtained from the stockpiles of the state – and not from a global black market in arms trade. Other work by Kalyvas and Balcells (2010) focuses on the interaction of the international system and internal wars with a focus on the "technology" of wars. They find that civil war outcomes are more likely to hold when both sides in the conflict use more sophisticated weapons such as mortars and artillery. These types of items are more difficult to obtain illicitly, which leads to a link to state to state arms transfers as the mechanism for groups obtaining these weapons. In the case of internal conflict the technology of war is provided by outside states prior to or

concurrently with conflict, thus making arms transfers an important factor in intrastate war. Marsh (2007) examines the intersection between group size and the types of weapons that are procured by rebel groups in conflict zones. His research can be seen as being complementary to the work of Kalyvas and Balcels (2010) in its acknowledgement of the need for group capability in order to make acquisition feasible. Maniruzzaman (1992) found that arms transfers to states tended to reinforce the legitimacy of military rule and led to military coups in recipient states.

Craft and Smaldone (2002) systematically examine the determinants of conflicts in sub-Saharan Africa. They specifically examined arms transfers both with and without military spending (as a control) in order to determine the importance of arms imports on the presence of conflict. They found a strong relationship between arms transfers and conflict within states even when overall military spending was accounted for. Their methodology does not allow us to make causal claims about arms transfers and conflict onset, but it does strengthen the empirical link between those concepts. Their findings also illustrate the need to determine whether or not arms transfers are exogenous to the overall security environment that a state finds itself in.

A subset of this literature on arms transfers' effect on intrastate war deals primarily with the illicit arms sales. Strazzari and Tholens (2010) borrow theories about weapons availability and the dynamics of insurgency. They apply this dynamic to the Palestinian conflict without citing the sources of weapons available to Palestinian fighters. Goose and Smyth (1994) condemn the availability of small arms in conflict zones, especially Rwanda and Bosnia and the role that Russia played in selling small arms to groups involved in those conflicts.

Lumpe (2000)[3] provides an anecdotal overview of the supply side of the illicit small-arms market. Others have also attempted to study the phenomenon of this market as well (Berryman 2000; Kinsella 2006; Klare 2004). These studies suffer from a paucity of systematic data for analyzing a large number of cases over time. This makes it difficult to make generalizations about the effects of arms transfers on interstate relations.

The third area in which arms transfers have been explored by scholars is that of the effect of arms transfers on international conflict[4]. Initial studies examined arms transfers as a link between superpowers and their security protégés. Huth and Russett (1993, 515–6) found that arms transfers were a factor in successful deterrence in defender protégé situations. They examined cases of successful and failed deterrence in and found that arms transfers from the defending state to the protégé. The higher the percentage of arms supplied by the defender to the protégé the greater the probability of successful deterrence resulted.

Huth (1988, 436-7) found that arms transfers had no effect on successful deterrence in cases of extended immediate deterrence. This finding was consistent with the effect of alliance ties on extended immediate deterrence. Huth's findings support a model in which the immediate actions and balance of power are the primary determinants in successful deterrence when a crisis between a protégé and another state are brewing. This finding is not necessarily contradictory to the Huth and Russett finding that arms are important in general extended deterrence. It does indicate that the effect of arms transfers is conditional.

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[3] Nearly all studies of illicit arms activity point to the Former Soviet Union as a major supply point for illicit weapons, especially small arms. This activity is not easily measured and, while interesting, does not fit in with the state-centric approach of the dissertation.

[4] It is possible that literature on arms races could be included in this category. However, arms races can be separate from arms transfers. I focus in this study on supplier's decisions to sell arms, which is likely affected by the recipient's demand for weapons. In that sense arms races may be a subset arms transfers except in the rare cases that both states involved in an arms buildup are capable of supplying all of their own weapons.

Kinsella and Tillema (1995) examined arms transfers by the U.S. and Soviet Union to Middle Eastern allies from 1948 to 1991. They found that U.S. arms transfers to Israel had a restraining effect on their conflict behavior with rival Arab states. Transfers from the Soviet Union to client states had the opposite effect and tended to precipitate conflict. This result fits with Krause's (1991) theoretical framework for superpower bargaining using arms transfers to protégé/client states.

The most explicit research on the effect of arms transfers on interstate conflict is that of Krause (2004). Krause examines conflict using a bargaining framework and posits that arms transfers can have an independent or interactive effect on conflict when used as a tool by major powers. Arms transfers by themselves lead to more conflict, but when they are part of a defense pact and the arms are supplied by the major power in the pact, this will have a pacifying effect. To test his hypotheses he examined conflicts from 1950 to 1995 at the state-year level and examined states as either dispute initiators or dispute targets. His independent variables were arms transfers from major powers, defense pacts with major powers, and the proportion of arms transfers from major power defense pact allies. Krause (2004, 367) finds that arms transfers can be "…compared and combined with other alliances when predicting armed conflict."

Krause hypothesizes that arms transfers have the effect of strengthening or substituting for armed defense pacts, and that arms will have a similar effect on state conflict behavior. This is conditioned the state that is transferring the weapons. Krause posits that transfers from a major power to a subordinate state will make that recipient state less likely to initiate interstate conflict. He finds that arms transfers from major powers do not in themselves restrain states from engaging in conflict initiation or from being targeted for conflict.

A different strain of arms research focuses on the control of arms. This research looks at both international efforts by states to curb the sale of weapons to states as well as internal measures by states to regulate arms transfers by their own arms producers. This

is an area where the distinction between small arms and larger weapons systems becomes clearer. Small arms are much more difficult to regulate than are large weapons systems. This is true from a manufacturing perspective as well as a tracking perspective. From the manufacturing side, regulation of large weapons systems is made easier by the fact that these systems are manufactured by what amounts to an oligopoly (R. Smith and Udis 2003, 95) where small arms can be manufactured by a nearly limitless number of firms.

From the point of view of states, small weapons are a concern, but they rarely constitute an existential threat to the state itself. Large weapons systems in the hands of a hostile neighbor or an organized rebel group, however, do pose such a threat. This is one reason why there is more cooperation, internationally on issues such as nuclear proliferation and the development of intercontinental ballistic missiles, then there is on the manufacture and sale of mortars, machine guns, and rocket propelled grenades.

One area in which this review has only briefly touched is that of arms production as a means of development. In general, the work on arms and development has been undertaken by economists and does not directly relate to international relations as much as it does to state's own internal decisions. Some early studies looked at arms production as a path to development, and the positive conclusions of these earlier studies has been questioned (Ball 1983). More literature (Brauer and Dunne 2004; Brauer 2003; Dumas 2004) exists that seeks to classify states' capabilities of producing their own weapons systems. These studies look at states' manufacturing capabilities and whether or not these states are theoretically able to produce modern weapons systems.

This particular strand of the literature is important from the standpoint that more potential manufacturers for weapons may shift the actual network of arms producers and sellers, should these states choose to activate their latent manufacturing potential. It is important to understand that a certain set of alternatives exists for states and their defense needs. However, trying to account for weapons production and sales that do not exist

unnecessarily complicates the current project. These studies on development are not considered in the remainder of this project.

Foreign Policy Analysis as Framework

This project is motivated by both a phenomenon – international arms transfers – and by questions which arise from the existence and workings of this phenomenon. Earlier I addressed a question regarding the logic of a realist conception of balancing and arms transfers. Such questions, while interesting, do not yield the type of answers that I seek in this project. I am more interested in the eclectic middle (Katzenstein and Sil 2010) of international relations that seek to answer more concrete questions.

The primary questions that I seek to answer in this project are these: *What affect do arms transfers have on other foreign policy outcomes? What affect do other foreign policy choices have on a state's arms export policies?*

To address this question properly requires a framework of assumptions and supporting empirical analysis. The remainder of this chapter outlines a number of the assumptions that I make in outlining my middle range theories and expectations in the following chapter. Some of these assumptions are ontological, some are epistemological, and others are simply pragmatic research decisions.

Why Foreign Policy Analysis?

The content of the state's "black box" matters. The level of analysis in international relations typically defaults to the level of the state (Hudson 2005). Foreign policy analysis, by contrast, seeks to open up the black box of the state and to examine the actions of actors within states and how their decisions affect the broader actions of the state. Most of the scholarship in foreign policy analysis today focuses on *why* states do what they do with a focus on the actual decisions being made within states, although

Carlsnaes (2002, 336) notes some strands that focus on more broad-based structural causes for foreign policy behavior.

Foreign policy analysis is closer to what non-specialists think of as international relations than what is accepted as such in the academy. Carlsnaes (2002, 331) addresses the somewhat tenuous position that foreign policy analysis has had in the broader field of international relations. He notes that the work of scholars in this area has "…to a considerable degree become one of eclecticism and defensiveness within a larger scholarly milieu which, on the whole, is not especially engaged with the issues at the head of the agenda of foreign policy analysis" (2002, 331). Hudson (2005, 1–2) in the introductory essay to the ISA journal *Foreign Policy Analysis* places foreign policy analysis in a privileged position in international relations with its ability to engage social science in general with its actor oriented approach to understanding "…how humans perceive and react to the world around them, and how humans shape and are shaped by the world around them."

The study of foreign policy in a systematic and comparative way was linked to the rise of the behavioral revolution in the 1960s. It had its focus "…explaining foreign policy in terms of discrete acts of behavior rather than in the form of purposive state actions…" (Carlsnaes 2002, 333). Many of the scholars of this time followed Rosenau's vision for establishing a scientific approach to the study of foreign policy. The most ambitious projects resulting from the comparative foreign policy (CFP) were explicitly interested in generating "integrated multi-level explanations" of foreign policy (Hudson and Vore 1995, 215). The most ambitious projects come from those efforts and all were based on models with "…independent variables at several levels of analysis [which] were linked by theoretical propositions….to properties or types of foreign policy behavior" (Hudson and Vore 1995, 216). The mixed empirical results coupled with the high expectations of comparative foreign policy led to a period of "disenchantment with

the CFP approach" to foreign policy analysis by the end of the 1970s (Hudson and Vore 1995, 216).

Foreign policy analysis is an integral part of the study of international relations because it accounts for the messiness of state interaction: "…foreign policy actions are located at the very center of the international relations of states, incorporating a multitude of influences – structural and agential, as well as international, societal and individual – that continually impinge on them and on their decision makers" (Carlsnaes 2002, 344) . This makes the analysis of foreign policy issues both interesting and complicated. It is a messy business to try to untangle the whos, hows, and whats of one state, let alone how these interrogatives interact with the other actors on the international stage.

Rosenau (1975, 20) compares foreign policy behavior of states to voter behavior in the sense that this behavior is the result of a "…complex interplay of factors that converge upon the relevant actors who, so to speak, process them." Rosenau and Hoggard (1975, 118) note two extremes in the study of foreign policy and advocate for a middle ground between the two extremes. The first extreme sees foreign policy only as the "…consequence of participation in an international system of relations…" while the second is the view that states' external behavior "…arises primarily out of efforts to satisfy domestic needs and wants" (Rosenau and Hoggard 1975, 118).

The thrust of the argument for using a foreign policy approach is that, if we truly want to understand the foreign policy behavior of states, it is necessary to rely not only on accounts of individual decision makers, but also the state and its interactions with other states and the overall effect of the international system on how the state and its leaders interact. This approach means abandoning much of the shorthand that is embedded in the different ideological and methodological camps of international relations scholars.

International relations scholarship is sometimes cast as being a ceaseless debate between various "isms." Lake (2011, 465) in his ISA Presidential address noted that the

field as a whole is not providing society the value it deserves. After listing the reasons why IR as a field is dominated by pathologies that lead to the creation "Academic Sects" and is divided by differing epistemological outlooks, he calls on an approach to IR that fits squarely in the comparative foreign policy analysis tradition:

"We do not produce understanding by fighting theological wars between ourselves at either the theoretical or epistemological levels. Rather, we achieve understanding by asking questions about important phenomena that we do not now understand well, employing appropriate theories to answer these questions, and then being honest with ourselves and others about the strengths and weaknesses of the evidence we have been able to bring to bear." (Lake 2011, 478)

Levels of Analysis

In this eclectic approach to examining the problem of arms transfers I am looking to open up the black box of the state. However, I am also attempting to keep the states and their interaction with one another in the international context in mind during that examination of the inner-workings of state process. In other words, even with a more "cosmopolitan" foreign policy approach to the study of the question of the foreign policy effects of arms transfers, it is necessary to account for the standard IR levels of analysis – man, the state, and war (Waltz 1959).

In fact, it is the deliberate accounting of these levels of analysis and the interaction between the different levels that may be the most important aspect of this project. I examine state-level decisions on arms sales (in both the United States and Russia), at the sub-state level. I also examine various state-level characteristics of both the primary arms supplier states, as well as the characteristics of a various importer/recipient states for arms. Finally, I examine the entire system of state-arms

interaction using a relatively new methodological tool – Exponential Random Graph Models (ERGM).

Each of the different levels of analysis will receive its own empirical treatment within the dissertation. However, the level of the state will receive less attention than either the system or sub-state levels. It is the area where the most effort has already been concentrated, and the unit of analysis (the state) is the most prevalent in international relations literature in general. The attention that I pay to the state in this analysis is limited to that which helps to situate both the levels of the "man" or sub-state levels, and as explanatory portions of the empirical chapters on the system.

In addressing these various levels of analysis I am attempting, more systematically, to explain both the patterns of arms sales as they currently exist, and how those patterns will likely continue in the future. The use of network analysis as a methodology and as a theoretical perspective for the level of the system is perhaps the most ambitious, and most important, aspect of this project.

Although network methodology has made its way into many studies of international relations (Corbetta 2010; Hafner-Burton, Kahler, and Montgomery 2009; Hafner-Burton and Montgomery 2006; Hyung Min Kim 2010; Wood 2008), its impact is still relatively small. In addition, many of the network studies that have been conducted have been done in a way that can seem to be relatively unsophisticated or naïve compared to the typical statistical methodologies utilized by researchers in international relations.

I am interested in examining the entire network of arms sales between all states in the international system. I am interested not only in a description of what that network looks like –the typical use of network methodology used thus far in international relations – but in understanding how and why that particular "structure" evolved. This is done by thinking of the resulting network as the sum of a number of underlying processes, and modeling it using methods that have been developed by network methodologists and sociologists.

By examining the overall structure of the international arms trade network, I hope to be able to infer the priorities of decision makers within the state. After examining the more macro-level process of how the overall network came to be shaped as it is, I move on to the more micro-level decision making that ultimately lead to the shaping of the network. This micro-level examination is a second contribution of this overall study. By examining both the formal structure of arms export control agencies in the U.S. and Russia, and then critically examining a number of decisions made by these states in regard to weapons sales, I can evaluate the evidence from the network ERGM models.

Wrapping Up and Looking Forward

This chapter has served to introduce a number of themes that will be addressed more closely in the remainder of this dissertation. The most important part of this chapter is the introduction of the pair of questions: *What affect do arms transfers have on other foreign policy outcomes? What affect do other foreign policy choices have on a state's arms export policies?*

These are the ultimate questions that I would like to answer. However, in order to answer them, it is first necessary to situate arms transfers within an investigative framework, understand how the arms transfer network looks and behaves, understand the micro-level decisions that led to the creation of this *particular* arms network and not another, and finally to understand how a state's foreign policy is tied up in all of this both in the dependent and independent variable sense.

The remainder of the dissertation will seek to build up to an answer to the question asked above. The study is organized as follows:

Chapter 2 builds on the concepts hinted at in this introductory chapter and more fully outlines the theoretical background for this study. It also outlines the empirical tests

and methods that will be used to address the questions asked here as well as the questions that follow from this broader question.

Chapter 3 describes the states that make up the world of arms transfers. It focuses on the characteristics of both the U.S. and Russia over the period of this study and the ways in which these states are different from the other states that sell weapons to other states.

Chapter 4 describes the world arms network both descriptively over time, and as a statistical model of network formation (an Exponential Random Graph Model – ERGM) of the world arms network. This chapter focuses on the way that the interactions of states also interacts with state characteristics to produce patterns of relations between states.

Chapter 5 provides the set up for the two sets of case studies that follow. It adds to the description of the typology of the cases outlined in chapter 2 by fleshing out the questions that will be asked in each of the three cases I will explore for Russia and the U.S.. It also provides the institutional background for both the U.S. and Russia. I describe the arms export agencies and the "rules" of the game that are played within each state.

Chapter 6 contains the three selected U.S. case studies for the different types of arms decision-making case described in chapters 2 and 5.

Chapter 7 contains the three selected Russian case studies for the different types of arms decision-making case described in chapters 2 and 5.

Chapter 8 provides some conclusions based on the findings in chapters 3-7. I also discuss further directions for this research and the other questions that presented themselves during the course of the research.

CHAPTER 2 – THE FRAMEWORK OF THE STUDY

Arms transfers have many different aspects. Arms transfers are studied both as a cause and an effect of foreign policy, as a cause or a result of conflict. Revealing how arms transfers affect the subsequent foreign policy decisions of the supplying state requires that I make choices as to how I think arms matter. This chapter makes that thinking more explicit as it relates to the levels of analysis that I am tackling in answering the primary question posed here.

The framework for this research is the interplay between the different levels of analysis. One of the primary differences between traditional IR scholarship and foreign policy analysis is the level at which each is focused (Hudson 2005). One of the critical barriers to isolating and understanding arms transfers in a foreign policy context is that there is little work that relates the different levels and the insight gained at each level to the others. In the following paragraphs I describe the different levels of analysis using three criteria. I first provide a directed review of some of the ways in which these levels of analysis have been conceptualized in other arms transfer, international relations, and foreign policy literature. Second, I indicate the way in which I plan on using these concepts in this research project. Third, I discuss the ways that my own choices will influence the further research in this project.

I discuss more explicitly how the three levels interact with one another, and how it is that my question is situated within and between these levels. Next I address the questions that need to be answered in order to answer the primary question of the dissertation. Finally I discuss the empirical and analytical work that needs to be done in order to address these sub-questions. This section includes a discussion of the specific chapters that are focused on each of these particular levels of analysis, and how I will examine each of these issues given my overall theoretical choices.

The State – A Basic Unit of Analysis

The state is the basic unit of analysis in international relations, the most important actor in the international arena. They are more often than not treated as analogous to humans in their motivation and their actions (Kubalkova 2001, 18). This personification of states is true both in the neorealist conception of states as formulated by Waltz (1979), by the English School as exemplified by the writings of Bull (2002), and even by those that follow the mainstream Constructivism made popular by Wendt (1999), in which states are "pre-social and exogenously given" (Kubalkova 2001, 50). Thinking of states as independent actors within the international system is shorthand used to understand both states and the system which they inhabit.

This conceptualization of states as rational unitary actors is an important simplification of the complex nature of international relations. This paring down of complexity is critical feature of positivist analysis of the world. In this analysis I acknowledge the fact that the state is, at the present time and the foreseeable future, the most important unit for analysis of world politics. The full project incorporates other levels of analysis, but does so self-consciously, and in an effort to enrich the discussion about the states themselves. The discussion about the system is meant to show how each of these states interacting with the other state actors creates a structure that then imposes constraints on further actions by all of the states involved. This conception of states may, in fact, serve to further personify states in ways that are alluded to by both Wendt (1999) and Bull (2002).

The sub-state analysis here is also meant to enrich our understanding of state behavior. A state's decision to supply arms to another state may result from protracted battles between various bureaus and departments within its government. Once the decision is made and the arms are sent, however, it is the "state" that has made the policy and which must live with the consequences. In this sense, I am co-opting a concept used

by Onuf (2001, 84) in describing rule-oriented constructivism: "Success breeds success, and many successes breed trust; agents earn reputations that they have an incentive to protect." In this sense we may think of states as super-agents which have reputations to protect, whatever internal decision-making procedures are activated during the initial choice.

In the state-centric portion of the analysis I accept the assumption that states are unitary rational actors. This study examines weapons systems that are typically deployed in wars between states. These are weapons such as armor (tanks and personnel carriers), aircraft, advanced missiles, and naval vessels.[5] In making that choice I have already excluded arms literature that focuses on intrastate war and the illicit trade in small arms. While I acknowledge that these issues can lead to state failure (Klare 2004), that problem is only tangentially related to the questions of this project.

Baugh and Squires (1983, 40) outlined five different models of arms transfers that capture many of the dynamics of states that help tie this project to some of the broader concepts of international relations. Their first three models are particularly apt to the discussion of arms transfers as they relate to the state, so they are detailed a bit more here.

Their model 1 is termed an action-reaction process model and basically uses arms transfers as a means of increasing a state's military capability. This increase in capability initiates an "action-reaction process" that further leads to conflict. This model may be seen to be closely related to the literature on power transition (K. Kadera 2001; Organski and Kugler 1981). In this sense arms are simply another capability that a state acquires

[5] Recent work by Kalyvas and Balcells (2010) examines the outcomes of civil wars when the rebel groups utilize more sophisticated arms. Such conflicts are quite rare, and so for the purposes of this research project are set aside. The weapons systems described are *typically* those that are used to threaten or harm other states.

through some process. The process of acquiring capabilities does not lead to conflict, but the changed capabilities that weapons provide may lead to conflict between states.

Baugh and Squire's (1983, 40) model 2 is also familiar in international relations literature. It is a deterrence model. In this model arms transfers lead to an increase in military capability within the state. This increased military capability deters a state's enemies from attacking it, leading to peace. Variants of this model (without the emphasis on arms transfers) are found in the deterrence and extended deterrence literature in IR (See for example Huth 1988; Signorino and Tarar 2006; Wu 1990).

Model 3 (Baugh and Squires 1983, 40) is an extension of model 1. In this model the arms transfers increase the military capability of a state. This increased capability allows the state to prevail in conflict with another state. This model is agnostic about the dynamics of the conflict and focuses instead on the potential results of increased capability for states that are engaged in conflict.

Taken together, these three models of arms transfers elegantly encapsulate the relations of arms to states in much of the literature on arms. States exist and arms exist. When those two items are mixed, various things can happen. The arms can change the dynamics between states and can lead to a process that leads to conflict. Arms races follow the logic of this dynamic whether the arms are produced indigenously or imported from other sources. Arms can be transferred to states in a way that increases the ability of the state to defend itself against potential rival states. This increased capability leads to deterrence of potential aggression and results in peace. States may be involved in conflict – either as the initiator or as the victim of aggression – and arms are necessary to prosecute the conflict. Arms are transferred in a way that leads to victory.

In this particular formulation, arms are simply part of the capabilities portfolio. Capabilities are a foundational element of most studies of conflict in IR. Capabilities have been a critical part of the Correlates of War (COW) project since its inception in the 1960s (Singer and Small 1966). That database does not account for the actual weaponry

employed by armies, navies, and air forces. Capabilities are viewed as the latent ability of a state to produce soldiers and weapons. Gray (1993) differentiates between these capabilities and the present readiness of a state to engage in warfare – it is the overall military competency and strategy that makes war. Weapons are a tool used by the agents within the state that are tasked with defending the state. In this view weapons are little more than complicated machinery.

Weapons are a symbolic representation of a state's power. Another perspective on weapons transfers is that for many states, the acquisition of weapons is simply a part that is played in the state's role – that it must demonstrate its capability of defending its territory, if only symbolically: "The deployment of armed forces--even armed forces of dubious actual prowess--unequivocally symbolizes such capability" (Suchman and Eyre 1992, 150). Suchman and Eyre (1992, 154) go on to elaborate a hierarchy of capabilities and the implicit shorthand about a state's capabilities that possession of certain types of weapons systems imply for a state: "As an example of a rough hierarchy of symbolic throw weight, consider the following ordering: long-range ballistic missiles, supersonic aircraft, advanced armor, air-defense missiles, armored personnel carriers, artillery, machine guns and mortars, cargo trucks."

The two previous views, breaking down the issue of capability are somewhat in tension. On the one hand, the mere possession of certain types of weapons is meaningless in understanding the ability of a state's capability on the field of battle. This requires a closer look at the armed forces within the state and their ability to utilize those weapons. Such strain requires a closer look at the incentives of the actors within the state for a fuller understanding. In some states the desires of elites for protection or for respect on the world stage may lead to acquisition policies that are opposed in general by a military whose day-to-day needs and most likely foes are likely to require a much different toolset. Or the roles may be reversed – the military may want certain weapons to give them prestige within the state, while civilian or other leaders may see the real

threats to the state or to the regime within the state as much different or as coming from the military itself.

Regardless of the above set of *whys*, it is clear from this review that states require weapons. In many cases this may be as much for the symbolic role that weapons play as for real defense needs, but the acquisition occurs, and it occurs regularly for most states. *Given the fact that arms transfers are so widespread I take the position that they are, themselves, less materially important than they are symbolically important.*

Within international relations literature states are characterized in a variety of ways. The most enduring of these classifications refer to the relative power of states. This is true of conceptions of core-periphery relations in Marxist theory (Przeworski and Wallerstein 1982; Wallerstein 1974). It is also true of analysis that involves hegemonic actors within the international system (Gilpin 1988; R. Keohane 2005; Kohout 2003; Modelski and Thompson 1999; Robert W. Cox 1993). Another popular division for states is to characterize them by regime type as in the vast literature on the democratic peace (Bueno De Mesquita et al. 1999; Harrison 2010; K. M. Kadera and McLaughlin Mitchell 2005; Rasler and Thompson 2004; Rosato 2003; Rousseau et al. 1996). Even when thinking of states as rational, intentional actors, the individual characteristics of the states themselves are an important point of comparison and analysis.

The challenge in this study, then, is to identify the characteristics of states that relate to the transfer of arms. These will be the same that are important for many, if not most, studies of international relations. They include the following: regime type, alliance partners, population, rivalry, military size, the level of military spending, and the size of the economy. This list is primarily "realist" in that except for regime type, all of the state characteristics are those associated with the power, or potential power of the state. While the list is realist in that sense, it can also be used to capture different constructivist or idealist measures. Some states will rank high on potential power based on population and economy size, but will have relatively small military spending. This may be due to the

alliance structure of the states[6] in regard to the U.S. and its allies, or it may mean that some states view power in different ways. I remain agnostic to the specific foreign policy goals of most states (by necessity) and their own justifications for making decisions[7]. The study of state characteristics is fairly standard and is a tool for generating generalizations about a great number of states at the same time.

I am interested in two direct questions that are of interest regarding state characteristics as they relate to arms transfers in my analysis at the state level. The first is whether regime type influences arms transfers. Both the democratic peace literature, referenced above, and other strains of "regime-centric" literature focus on regime type as a primary factor in much of state decision-making. In these analyses regime type is treated as either a continuous variable from the Polity IV dataset (Marshall and Jaggers 2002) or as a dichotomy of democratic vs. autocratic regimes with "anocratic" regimes used as the reference category.

The democratic peace literature has not specifically addressed arms transfers. However, the logic of the argument rests on either cooperation, information, or shared values as a mechanism for maintaining peace between democratic states. A similar argument is made by those who look at non-democratic regimes as finding ways to band together to resist the democracies. This is the argument made by Ambrosio (2009) regarding Russia's foreign policy choices.

The second question that comes from this literature is whether there is a correlation between military size and weapons type. Some weapons systems are well-suited to professional armies with highly-trained soldiers, while others are more

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[6] See (Lake 2009) for more on U.S. hierarchy in international security.

[7] This agnosticism is only meant to apply to the cases in which I examine the state as a unit. The examination of the sub-state actions by groups within Russia and the U.S. that comes later deals directly with this issue. For other states it may be appropriate to say that I remain ignorant of their foreign policy goals.

appropriate for conscripted armies in which training is usually minimal and terms of service are short. This choice of military type and military size can be the result of a number of different processes, but the type of military that a state has should affect arms purchasing decisions. The issue of military type may be wrapped up in issues of other types of sociological and developmental processes within a state. These issues do not figure prominently in this project, but are interesting questions in their own right.

In thinking of states and the arms trade it is tempting to classify states as simply net exporters or net importers of weapons systems. Such a classification may be helpful in some contexts, but in trying to determine foreign policy outcomes may be less useful than other measures. There are other ways to classify states that are more directly related to their activities within the world of arms transfers. One prominent researcher (K. Krause 1992, 58–61) categorized arms exporting states as belonging to one of three tiers. These tiers matched both with state capability and motivations. For Krause (1992, 61), states in the first tier chose to export weapons mainly because they could, and the positives outweighed the negatives of making such a decision. Originally the first tier comprised what were essentially the major power states. However, since the 1960s only the U.S. and the Soviet Union (during the Cold War) and Russia (after the Cold War ended) fall into this category.

The second tier emerged in the 1970s and consists of states with high capabilities for producing weapons, but with little internal market. These states depend on exports to keep their own indigenous arms production viable, but it is the economic revenue that mostly motivates the participation of these states in the international arms market (K. Krause 1992, 150). The third tier states are the most diverse group. These states are unable to produce weapons at the same level of sophistication as the top tier and top second tier states; they are able to produce one or two complex systems at most, and are dependent on imports of critical sub-systems (K. Krause 1992, 153). Beyond this

description of production capability, however, Krause (1992, 162) provides a list of motivations for the participation of these third tier states in the world market:

1. Guarantee arms supplies to counter threats to security.
2. Provide a symbol or index of effective regional or international power.
3. Catalyze economic modernization efforts.
4. Develop local skills and technologies.
5. Substitute for imports to save hard currency and improve the balance of payments.

These motivations are interesting in that they encompass the traditional security role that we think of arms as playing, but are also thought to provide symbolic (of power/competence) and economic benefit as well. The list of third tier states provided by Krause is eclectic.

The potential research on the different aspects of this tiered system is immense. However, the point that I want to take from this research is that it is only the top tier states that are able to think about arms transfers as a "luxury." By luxury I mean that the economic, social, or symbolic needs pushing other states to export do not exist for these states. Only the first tier states can choose to be selective in their sale of arms in a way as to make these arms sales a theoretically "pure" foreign policy tool.

The criteria used to classify arms exporting states into one of these three tiers are based in many ways on the criteria that were outlined earlier in this section. In the separate analysis of states' role in arms transfers I rely more on the former characteristics than on the tier concept. However, when discussing the foreign policy aspect of states' use of arms sales, which in this analysis covers the sub-state level of motivations, this concept of tiers becomes important.

This section has outlined the proposition that states can be treated as unified actors. Whether states are making choices based on ideas about how the world should be, or making decisions based on power and existential threats, arms are a part of the life of states. Whether these arms are used simply as symbolic signals to other states, or

whether they are used to bolster a state's actual capacity to hurt other states (Schelling 1966) is left unaddressed. I am examining the empirical fact that states do trade weapons, and that state characteristics such as those related to power (capabilities) and ideology (regime type) do matter in that exchange of arms between states. However, an examination of characteristics of the states themselves is not a satisfying answer to why the arms relationship between states is as persistent as it is.

The System of State Relations

The world's political interactions have been characterized in a number of ways. For example, it has been characterized as society (Bull 2002), or a system (see, e.g. Singer 1961; Wallerstein 1974; Waltz 1959). The common thread among all of these classifications for the world system is that the actions and interactions of the smaller units (states) structure the overall political environment. The study of war accounts for a large volume of the literature in international relations. While war is the ultimate state action, it is not (presently) the default state for most states (King and Zeng 2001a, 2001b). Arms may be related to state's war-making capabilities, but trying to find empirical support for weapons transfers leading directly to wars has been difficult to prove (Diehl and Crescenzi 1998; Gibler, Rider, and Hutchison 2005; Mintz 1986). The most likely area to find a connection between arms and conflict is in the literature on arms races. Glaser (2000) in his review of this literature notes that there is a great deal of ambiguity in the results of research on arms races.

Not all research on the international system is focused on war. For example, the subfield of International Political Economy (IPE) focuses on the trade relations between states, and many scholars focus on international organizations and their effect on interstate relations (Barnett and Finnemore 1999; Chwieroth 2008; Dorussen and Ward 2008; J. L. Goldstein, Rivers, and Tomz 2007; Pevehouse 2002; Ward, Siverson, and Cao

2007). The specific focus of study, whether war, economics, or international organizations are organized in a way that recognizes and accounts for the interactions of states.There has been some work done on understanding the relationship that arms sales have to the international system as a whole (Anderton 1995; Harkavy 1975; K. Krause 1992; Sanjian 1991, 1999; SIPRI 1975). Many such studies describe the patterns of arms sales between states in some organized way, but don't go much beyond that. Some studies are more theoretical in trying to understand the causes for the patterns that exist.

International Relations scholars have recently begun adopting an approach to studying the interactions between units in social settings. This research holds great promise for illuminating the properties of systemic phenomena. Social network analysis has been employed as a way of understanding how independent states interacting with one another create a structure that then affects how states continue to interact with one another.

Network methodology fits well with a number of international relations paradigms. It is especially well-suited to examining questions in the agent-structure problem (Wendt 1987). In short, the agent-structure problem is that actors (in our case states) are purposeful actors whose actions transform their social environment. In turn, the social environment is made up of relations that can then structure the interactions between these actors (Wendt 1987, 337–8). Social network analysis is most often used to study the structure of social relations. An actor's position in the milieu of all the social interactions can, in turn be used to predict, or explain her subsequent behavior.

It can also be used in measures of power – both hard and soft (Nye 1990). Soft power can be thought of as the prestige that a state enjoys among other states. Social network analysis has been used to identify prestigious actors within a network based on the way that all the relationships within that network are structured (Knoke and Yang 2007, 67–72; Wasserman and Faust 1994, chap. 5). Thus far in international relations, network methodology has been used most by those operating within the liberal paradigm

to examine the effects of joint membership in IGOs and the ties that creates between nations (see, e.g. Dorussen and Ward 2008).

The study of networks is still new in international politics, but it is not too early to see its potential for answering relevant political questions. One question that remains with the use of social network analysis is whether it is a theory or whether it is simply a methodology. In order to justify my own use of social network analysis as the primary method of examining the international system I will examine this particular question below at some length.

Network Analysis as a Tool of Theory Building

King, Keohane and Verba (1994, 19) define a social science theory as "…a reasoned and precise speculation about the answer to a research question." Such a theory might be referred to as a mid-range theory, or one belonging to the "muddled middle" of international relations research (Katzenstein and Sil 2010). While the great debates in IR are traditionally organized around the grand theories (realism vs. idealism for example) the vast majority of work in international relations is done in the trenches, so this idea of a theory as speculation about the answer to a research question is valid for an evaluation criterion. It is also the particular area that I have staked out for this particular project, so this definition of theory is appropriate for this research project as well.

King, Keohane and Verba (1994, 19–20) further specify three criteria by which social science theories may be improved. These criteria for improving an existing theory are 1) it must build on existing evidence, 2) it must be falsifiable, and 3) it should be capable of generating observable implications.

Social network analysis can be used to meet all three of the criteria noted above. It is a way of looking at the relations that is especially good at generating observable implications of the structure of those relations. Network analysis is grounded in three

principles (Hafner-Burton, Kahler, and Montgomery 2009, 562). These principles are 1) that nodes (or actors) and their behaviors are mutually dependent and not autonomous; 2) that ties between nodes can be channels for transmission of material and non-material products; and 3) that persistent patterns of association among nodes create structures that can define, enable, or restrict the behavior of nodes.

Network analysis may not be the best analytical tool for creating falsifiable tests of an existing theory. Network analysis does not make specific predictions about the nodes or their interaction with other nodes ex ante. Such judgments are typically made ex post once the structure of the network has been analyzed using network analysis techniques. That is not to say that network analysis does not make predictions about possible consequences of different structures on the behavior of the nodal components of the network. In complex networks (more than 10 or 15 nodes) understanding what structure exists without extensive analysis of different network characteristics such as centrality, degree, cliques, range, etc. is not possible (Knoke and Yang 2007).

Network analysis is particularly well-suited to inductive theorizing. The way that networks order and reveal information about the interactions between all the actors in a system can help to reveal patterns that are lost when examining the actors in isolation, dyadically, or as a unified whole. Social science tends toward the Popperian (1968) principle of falsifiability and the need to generate observable implications from a deductive theory. Network analysis as a tool can also be used to in this manner in much the same way that OLS regression can be used to confirm hypotheses.

Knoke and Yang (2007, vii) specifically classify network analysis as a method, and criteria for judging methodology are hard to pin down and evaluate. King (1990, 11) details the reasons that methodologies have been imported into political science generally. He is concerned with ensuring that statistical methodologies used in political science are appropriate to the task that they are being asked to perform. He advocates

fully understanding and communicating "…what was done to the data to produce the statistics that we report."

That seems to be a useful starting place for evaluating network analysis as a methodology. Can the manipulations of the data and methods used to do so[8] be documented and replicated? In that respect network analysis is very comparable to statistical methodologies. The mathematical concepts, algorithms, and manipulations used to summarize networks (nodes and ties) are well-documented in a number of reference works, as well as in statistical software packages designed to work with network data.[9] Network analysis is a consistent, reproducible, and documented process and can therefore be accepted as a valid methodological approach to international relations problems.

Applying Network Analysis to International Relations

One reason for the infusion of network analysis into international relations research has been the popularity and impact of constructivist thought in international relations. Network analysis is one way to try to open up the "black box" of structure in the agent-structure problem. One of the core assertions of Wendt's (1999, 171) Social Theory is that culture (or structure) can also have constitutive effects, which "…supports the holistic view that agency has an inherently relational dimension." Because social network analysis was developed specifically to address the agent/structure problem in sociology, psychology, and anthropology (Knoke and Yang 2007, vii) it is only natural

[8] Or as King (1990, 11) phrases it: "…taking a lot of numbers and summarizing them with a few numbers."

[9] Wasserman and Faust (1994) is probably the most cited reference. Butts and colleagues (2007; 2008) have also developed a number of network tools for R and these are well-documented.

that it be ported to international relations to address those same questions for states, which Wendt (1999, 195) has conceptualized as being corporate people.

Non-statistical and non-sociological approaches to understanding international relations can also benefit from social network analysis. Agent-based modeling, a computational methodology which occupies a middle ground between the complexity of the real world and the simplest game theoretic models which are simplified to be tractable (De Marchi and Page 2008, 91) is one such field. In agent-based models large numbers of independent actors interact with one another in the "space between two agents and an infinite number of agents." In such models coalitions emerge based on the plausible rules of social and geographical networks. Studying network properties using network methodologies is one way to provide these complex computational models with better assumptions.

Network methodologies can be used to test the assumptions of other paradigms as well. As noted above, one of the primary uses to which network analysis has been put in the international relations literature is in work about international organizations, which are based on a liberal paradigm. Network analysis can describe both the shape and characteristics of overlapping IGO memberships between countries. Such work is characterized by Dorussen and Ward (2008) who use network characteristics of IGO membership in standard statistical models to test for the effects of network ties on conflict. Their major finding (Dorussen and Ward 2008, 208) was that the standard measurement of IGO co-membership was not picking up the pacifying effects of membership in those organizations. Network measures showed that the indirect linkages facilitated by joint IGO membership facilitated more peaceful interactions and led to the "Kantian Peace" that the liberal paradigm predicted.

Network analysis has been widely adopted by scholars who study policy, and has also been applied international relations literature. One of the more well-known examples is that of Krebs (2002) who mapped the 9/11 terrorist cells using data available

from news sources after the attack. This has led to a sub-field within the network literature on network targeting (Farley 2003) and structural mapping (Enders and Su 2007; Koschade 2006). These applied techniques are used not to explain a general phenomenon, but to find specific solutions to current problems. The development of strong network analysis methodologists within international relations may help to facilitate better communication between academe and the policy world (see Lepgold 1998, 47).

Located somewhere between the previous examples is work by Kinsella (2006) who uses data on black market arms sales in a network analysis. He finds that the illicit small arms trade is dominated by a small group of African countries. That finding has a number of policy implications. It also generates a number of theoretical questions. If those countries were to be targeted because of their role in illicit arms sales would the networks collapse or simply regenerate? It may be in such applied cases that real theories of networks as they relate to international relations will emerge.

Arguably the most studied part of international relations is the occurrence of violence between states. Hafner-Burton and Montgomery (2006) apply social network analysis to examine states' action in Militarized International Disputes (MIDs). They use network techniques of finding structurally similar countries as well as finding similar clusters of states. Using their IGO network measures as well as standard economic and capabilities controls, Hafner-Burton and Montgomery (2006, 24) find, like Carpenter(2007a), that it is not just the individual characteristics of the actors within the network, but the network position held that influences conflictual behavior in states.

The few studies illustrated thus far show the more successful attempts at using network methodologies to answer international political questions. Hafner-Burton et al (2009) provide a great discussion of the evolution of network analysis and its potential in IR. They also provide a caution. Network analyses have made their way into international relations research in two previous waves, and both times they eventually

lost steam and were cast away. They (Hafner-Burton, Kahler, and Montgomery 2009, 580) note that it is practitioners of network methods that often do the most harm: "…[they] too often deploy network concepts and theories that are inappropriate or grounded in unproven assumptions. Selective extension of existing theory and findings to international relations may also be misleading."

The promise of network analysis as a methodological tool in understanding international relations is there. It is clear, however, that the use of this methodology within international relations also needs to be done carefully. In the paragraphs to follow I make the case for using network methodology as the basis for exploring the international arms transfer system, which I freely acknowledge is a subset of the international system as a whole, and which relates to the overall system in very specific ways.

One of the aspects of network analysis that is sometimes overlooked is that it can take into account the individual characteristics of the units being studied. This is one reason that its use in international relations seems to have met little resistance in the instances where it has been adopted. In this way, the use of social network analysis is one way to bridge the gap between the levels of the state and the system. The system is the result of the individual states interacting with one another. Their interactions are shaped both by their previous interactions and by the individual characteristics possessed by the states themselves.

In fact, the early analysis of the world arms transfer market relied on this logic, if somewhat informally. This is the pattern that is noted by Krause (1992) in his discussion of tiered weapons supplying states. The pattern of exports from each of the different kinds of states is different because of the capabilities (in part) of the states involved. There are also other considerations such as other alliance ties, historical relationships, military decision-making within the recipient states, etc. that all affect who buys what from whom.

The use of social network analysis offers a way to study these relationships between states more formally. In many instances "…social network methods are descriptive, attempting to represent some underlying social structures through data reduction techniques or to characterize network properties through algebraic computations" (Knoke and Yang 2007, 96). However, new computational and statistical techniques now allow researchers to move beyond description and to explain ties (relationships) between actors (states in this case) using both the individual characteristics of the actor and the properties of the overall network/graph (Anderson, Wasserman, and Crouch 1999; Knoke and Yang 2007, 97; Robins et al. 2007; Shumate and Palazzolo 2010).

Most recently Desmarais and Cranmer (2011) have written about the utility of using the Exponential Random Graph Model (ERGM)[10] in examining issues of interest to political scientists. Specifically, they note that by using the ERGM model after conceptualizing a problem in network terms, researchers can avoid some of the statistical inference problems that are introduced in other statistical regression models (Cranmer and Desmarais 2011, 84). The ERGM model also has the ability to test both state-level characteristics (the traditional approach) with network-specific characteristics.

It is this latter point that has implications for questions of states' foreign policy decision-making. In thinking of a state's arms sales decisions we can think that each decision made by the state is independent of all other decisions, and that if State A wants to contract with State B to sell 100 tanks, the only consideration is of the relationship between State A and State B. This is the assumption that dyadic studies make. This may not take into account that State B is a rival of State C and that State C is also purchasing tanks from State A. In this scenario B may demand that State A cease selling tanks to State C before it will move forward with the contract. State B may reject any offers from

[10] Or more generally, the p* model.

A and seek tanks from State D. Understanding the conflictual relationship between B and C, then, can help us to understand the potential relationship between A and B.

Such triadic relationships have been discussed in international relations before (Goldmann 1988; J. S. Goldstein 1995; Lee, Muncaster, and Zinnes 1994; Muncaster and Zinnes 1982), but modeling such relations has mostly been in the realm of dynamic models (in the cases by Zinnes and Muncaster) and such triadic analyses have not made their way into more traditional studies of state relations. This discussion of triadic relations is illustrative of the difficulties of accounting for the effects of the many relationships that states have with each other in understanding state decision making processes.

Social network analysis offers tools to help simplify these multiple relationships (or ties) between actors. The total number of ties and their pattern can be used to infer relationships of power he total number of ties and their pattern can be used to infer relationships of power he total number of ties and their pattern can be used to infer relationships of power (White, Boorman, and Breiger 1976) and other positions. There are other social roles that can be identified in social networks, such as "bridges" between groups (Granovetter 1973) that have been found to be important factors in social relations.

In this research project I am limiting the scope of the "international system" to the very specific international arms transfer system[11]. I believe that this arms transfer system is embedded in – both in terms of being influenced, and influencing – the greater international system which is made up of all the various interactions both of states and influential non-state actors. The question that interests me about the arms transfer system is what factors influence its formation (and presumably its continuation) both in terms of

[11] This is analogous to studying an individual's work or school network. These networks will not tell you everything you need to know about that person, but it can tell you a lot about her work life.

the states that participate in the sale and purchase of weapons, and the overall structure of arms sales that results and then influences the continued sale of weapons between states.

In order to study the international arms transfer network I focus on using the exponential random graph model (ERGM). As I noted above, the ERGM model is just now making its way into the study of politics (Cranmer and Desmarais 2011). It has been used in other applications for a number of years (Albert, Jeong, and Barabási 2000; Steven M. Goodreau, Kitts, and Morris 2009; Pastor-Satorras and Vespignani 2001; Robins, Pattison, and Wang 2009; Saul and Filkov 2007). Chapter 4 discusses this model and my use of it in more detail.

The advantage of the ERGM model is that it allows researchers to examine both the network characteristics which are of interest, but also the individual node-level characteristics that may play a part in how the actors within a network interact and build the network structure. The model itself is described in detail in Chapter 4.

The ERGM can be used to model the dyadic, triadic, and other non-monadic (typically referred to as k-star) relations between states. The primary purpose of the network analysis is to tease out the ways that the individual characteristics of states have led to both past and current patterns of arms sales – and ways that these patterns have arisen independently of the individual characteristics of the states involved. In other words, I am modeling the arms transfer subset of the state system as a network, and using the tools of social network analysis both to describe the system, and to understand how it emerged and has changed over time.

Arms Sale Decision-Making at the sub-State Level

I have already noted that international relations are typically modeled using some variation of the state as unitary actor assumption. This is true even in cases of mainstream constructivists such as Wendt who conceive of states as being “pre-social” and

"exogenously given." Smith (2001, 50) critiques Wendt's approach here noting that his "…account of the foreign policy behavior of states leaves no room for domestic factors" and relies on states interacting with each other to determine the identities and interests of the individual states. Foreign policy analysis offers an approach to this problem. That is to examine the actions at the sub-state level for various actors within the state.

Krasner's (1976) classic study of raw materials and the national interest is a good starting point for a discussion of the role of sub-state actors. He takes on the idea of the state as a unitary actor while at the same time discounting Marxist and liberal conceptions about the role of society in shaping the actions of the state. His analysis accounts for the competing interests within democratic states, while at the same time finding that the state itself has interests that it will impose when it feels it is necessary. Krasner defines the national interest of the state as "… a consistent set of objectives sought by central decision-makers" (1976, 330). This statist approach to understanding the actions of states is a good model for arms transfers. Within the state there are a number of interests that may be competing over policy aims. Unless the outcome of this competition is unacceptable to the state, or key policy-makers within the state, the winner of these struggles will determine policy.

There is enough evidence that states have incentives to promote arms sales that the default position of the state is to sell arms. In most instances the organs of the government responsible for foreign relations (such as the State Department or Defense Department in the U.S. or the Ministry of Foreign Affairs in Russia) would facilitate arms transfers, but would ultimately look to the executive (the president) for the final say in the process. Is this the case? In the case of Russia there is little evidence that the transfer of weapons to other states is constrained by any agency. The arms export agency of Russia, Rosoboroneksport, has nearly free license to sell arms to any customer (Blank 2007; Kassianova 2006).

Within the United States there appears to have more constraints on the process than is the case in Russia. The State Department has the Directorate of Defense Trade Controls (DDTC) which reviews arms sales in conjunction with the defense department. Defense reviews for technical concerns while the DDTC reviews sales (in this case licenses) and refers cases for further review to other departments for "…foreign policy, human rights, and non-proliferation concerns" (Schinasi 2005, 20). However, there are numerous cases in which the bureaucracies and elected officials have maneuvered in order to advocate for various arms deals (see Qingmin 2006). Such inter-bureaucratic fighting is an illustration of Allison's (1969) "Governmental Politics" model of decision-making.

Within the state there is a lot of room for negotiation as to the final outcome of a policy. Even in Krasner's conception of national interest, there is room for the key policy-makers to change their preferences. Competition between groups within the state can, de-facto, set policy if it does not contradict the "national interest" and those actors engaged in competition can work to change those preferences as part of ongoing competition. The outcome of competition is seen in the sale of arms (in the case of arms transfer policy). Studying the process of competition within the state can offer insight into how a state's foreign policy is made, and how it has evolved.

My examination of the sub-state levels has two parts. First, there is the organizational or institutional environment in which decision-making takes place. How do the primary gatekeeper organizations within Russia and the U.S. work to balance competing interest, and to ensure that arms sales are furthering the "national interest" of the state? The set-up of the bureaucracy and the ways that decisions are "supposed" to be made is an important baseline of knowledge, and is one that has not been explored in international arms transfer literature.

Second, and more importantly, systematically examining individual cases of decision-making for various arms sales by both Russia and the U.S. can help to

"…generate discriminating and contingent explanations and policy recommendations" (George and Bennett 2005, 235). This study explores "complex causal relations" of arms transfers, including ideas of path dependence, interaction effects, selection effects and the possibility of explanations of equifinality or multifinality (George and Bennett 2005, 10–11). This complexity is the hallmark of middle range theories, but is hard to address using only statistical models (including the models of network I will be using for part of the analysis.)

In order to understand if arms sales can influence foreign policy behavior, it is first necessary to understand how arms sales policy decisions are made. This can be done using typological case studies as described by George and Bennett (2005, 235). In order to examine the ways in which arms sales can be affected by or can affect foreign policy decisions I assume, similar to Allison's (1969) bureaucratic organizational process model, that arms sales rely on a precedent model. That is to say that once a decision has been made, that is the type of decision that will continue to be made under similar circumstances.

The process for approving a "typical" case of arms sales would begin with an examination of each sale and determine the extent to which the sale being authorized fits the pattern of past sales in terms of the recipient state, weapons type, order size, etc. Sales that fit this pattern should be fairly "automatic" in the sense that the default position is to say "yes" to sales because they are viewed as being beneficial to industry and to the military which benefits from native arms capabilities (see Hartley and Martin 2003). In Allison's terms, they fit the standard operating procedure. This assumption that the default position is "yes" once a decision has been made is one that, like all assumptions, distorts the complexity of the issue. However, by making this assumption I can explore three related types of cases in which the decision-making itself becomes both more visible and more interesting.

In Chapter 5 I examine the bureaucratic set up of both the United States and Russia in more detail. I also outline more fully the logic of the cases that I will use to illustrate decision-making within each of those two states. Examining the sub-state actors within the leading arms exporting states is an inductive exercise to try to determine what the preferences for arms transfers are within a state. The list given by Krause (1992, 162) for a state to export arms offers a range of preferences over which actors within a state might compete. Economic, power, and symbolic considerations are all working in some degree or another as motivations for actors to promote or oppose the transfer of arms.

Conclusions – Working Toward Theory in Arms Decision Making

This chapter has introduced the framework within which I explore the issues of arms transfers and foreign policy. This framework has little relation to traditional inductive theorizing. What I have done instead of predicting my findings is to lay out the scope of the investigation. Rather than relying on surprising results to verify the veracity of a theory I rely on a systematic series of confirmations of what is already known about the world as I work toward the meat of the cases on foreign policy decision-making.

The case studies on U.S. and Russian arms transfer policy making that conclude the dissertation are meant to identify hypotheses about the way states make foreign policy, explore causal mechanisms in decision-making within states, and account for the complex causal relations in which policy makers operate (George and Bennett 2005, 20–22). In taking this approach to the overall study of arms transfers and foreign policy I am consciously making a trade-off between theoretical parsimony and explanatory richness because I am more interested in "the mechanisms" of foreign policy decision making as it relates to arms transfers than in the frequency in which those mechanisms (and their attendant conditions) arise (George and Bennett 2005, 31).

I begin the research with an exploration of the characteristics of the two most prominent arms exporting states in the international system. The choice of beginning with the state-level characteristics is a conscious concession to the overriding paradigm of examining international relations in terms of states that are unitary actors. Chapter 3 also builds into the discussion into the types of characteristics of states that may help to order their relations. These characteristics of power, regime, and alliance are building blocks to the social network analysis of Chapter 4.

In Chapter 4 I examine the structure of the world arms trade network using traditional tools of network analysis. I examine the features of density, subgroups, connectivity (or density) between states, and look for the existence of "cliques" or exclusive groups of states that stick together in terms of arms transfers. I examine the arms network in each decade from 1950 through the 2000s and compare these measures across the decades.

After examining the structure of the arms network and the position of Russia and the U.S. within the network, I examine the factors that lead to the formation of each of the particular networks for each decade. This is the realm of the ERGM model, and it is where the state-level characteristics identified in chapter 3 become a part of the larger analysis. The ERGM model allows us to examine the characteristics of each state (node) as well as the characteristics of networks to find those factors that led to the formation of the network that we see. I discuss this at greater length in that chapter.

Chapter 5 is a descriptive and comparative chapter of the bureaucratic organizations within the U.S. and Russia that act as the primary gatekeepers of arms export policy. This comparative exercise is used, along with the results from the ERGM model in Chapter 4 to develop a series of criteria both to select and to analyze cases of arms transfers by the United States and Russia. These cases are the areas in which I explore the decision-making that makes up the foreign policy of these states as it relates to arms transfers in more depth. It is in these case studies, which are built on the base

laid by examining state-level characteristics and the system formed by the interactions of those states, where I attempt to answer the questions posed by this research. Those cases are found in Chapters 6 and 7.

CHAPTER 3 – THE STATE OF THE STATES

In this chapter I examine Russia and the U.S. as two states that can conceivably use arms transfers as a "pure policy" tool. What I mean by this is that these are the two states with a large enough volume of arms exports and domestic market for arms purchasing that the state can withstand economic pressures to export arms if there are other policy reasons not to. I base this assumption on the categorization of other scholars of arms transferring (exporting) states into different tiers. It is also based on the idea that is inherent in most research in international relations – that state power matters for how states interact.

In this chapter I introduce the two major state actors on which this study focuses. Specifically, I outline the ways that power is measured and why that matters for arms transfers, and use comparative descriptive statistical measures to show how the United States and Russia (the Soviet Union pre 1991) differed from the other states in the system on these dimensions. I also compare how the recipients of arms from the U.S. and Russia differed in various decades.

The primary findings from this chapter concern the dramatic disintegration of Russia's relative power after the collapse of the Soviet Union and its minimal effect on Russia's arms trade activity. While the change in Russia's relative power is not surprising given the losses it experienced at the breakup of the Soviet Union, the continued strength of its arms export program is. China and India are the primary drivers of the continuity and resurgence of Russian military sales in the period from 2001 to 2010. The customer base of the United States and Russia differ across capabilities, military organization, and level of democracy.

State Power – Concepts and Measures

Power is a fundamental concept in the study of international relations. Mattern (2010, 691–694) argues that it has been "…a significant constitutive force defining the discipline of international relations." She argues that even though power is a central tenet in nearly all international relations studies, there is little agreement between different research communities about its definition. Material capabilities were the focus of international relations at its birth as a discipline (Mattern 2010, 691–2). Power is the primary variable of study in theories of hegemony(R. Keohane 2005) long-cycles of stability (Modelski and Thompson 1999), and theories of power transition (K. Kadera 2001; Organski and Kugler 1981).

Baldwin (2002) in his review essay of the concept of power in international relations notes that power is often an ill-defined concept. I agree that there are limitations with the measures we have for measuring power, but follow convention in using widely-accepted measures of power here. This study is, at its core, about material power. As I argued in the first chapter, arms are a visible, quantifiable, and immediate source of power for the states that possess them. I accept the underlying logic of the instrumentality of material resources for power.

A frequently used measure of power is the capabilities variables or index from the Correlates of War (COW) project (Singer, Bremer, and Stuckey 1972; Singer 1988). This index is composed of selected measures of demographic, industrial, and military capabilities. These indicators are selected to "…reflect the breadth and depth of the resources that a nation could bring to bear in instances of militarized disputes" (COW 2005).

The COW data are used primarily in the study of conflict, and so the collection of the data and their use is oriented in that direction. Using the components of power or the index constructed from them (the CINC score, more on which later) runs the risk of not capturing the true capabilities and potential of states. This is acknowledged by the authors of the COW data. They note that other factors such as "…effective political institutions, citizen competence, regime legitimacy, and the professional security elites…" may influence effectiveness with which the state's resources are utilized, but that they "…are not a component of such capabilities" (COW 2005, 3).

In this particular study, however, examining these different aspects of power is prohibitive. Since I am interested in the policy of states, the means of coercion provides a good proxy for the ultimate expression of power – war. The capabilities of states as they relate to their military capacity are also the dimension of power that is most closely related to the question of arms transfers.

For the empirical analyses in this chapter and the next, I use the COW measures of national capability to measure state power. In using these data I recognize that I am narrowing the explanatory power of the research. However, since this analysis ultimately drills down to the level of two separate states, this choice does not narrow the overall scope of the research. In fact, the point of this chapter is to demonstrate quantitatively how the United States and Russia differ from each other and from other states in the international system.

Why does state power matter for arms transfers? This question has been studied in many different contexts. The primary reason, is that it is the most powerful states in the system that control (by volume and quality) the arms transfer market. As noted in the Stockholm International Peace Research Institute (SIPRI) report on third- world transfers (1975) the United States and the Soviet Union were both the dominant states in this market and, as such, were the only states that didn't "need" to sell weapons abroad in

order to support their domestic defense firms. This is also noted by Krause (1992) in his description of tiers of arms exporting states.

From the standpoint of history it is not surprising that the two "superpowers" of the Cold-War era were the two states that dominated the arms market. Each of these states was large, powerful, and influential. Each state wanted to influence other states to accept their ideology and influence – or at least to reject the ideology and influence of the rival superpower. Numerous scholars have shown that arms transfers were used by both the United States and Russia as a way to influence allies in the Middle East during the Cold War (Glassman 1975; Joshua and Gibert 1969; Kinsella 1994; Porter 1984).

U.S. and Russian Power 1950 - 2007

Using the COW data we can examine the overall power that Russia[12] and the United States possessed within the international system over the course of the Cold war and through the post-Soviet transition. The COW data uses a measure of six different items. These items are iron and steel production, military expenditures, military personnel, energy consumption, total population, and urban population (COW 2005). Each of these components is turned into a ratio of that country's share of the world's total for that component. Each of these ratios is added together and the total of the ratios is divided by the number of components. This scaling gives the share of total world power (as assumed by the components – often thought of as hard power) for each state for each year. Figure 3.1 shows the scores on the Capabilities Index for the United States and Russia from 1950 (the point from which arms data are available) through 2007 (the last year of the COW data).

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[12] Rather than reverting between the Soviet Union and Russia, I will hereafter refer to the Soviet Union as Russia.

Note first that the share of power held by Russia and the U.S. during the period from 1950 to the end of the Cold War was very high. Each of these states controlled at least 15% of the world's total capabilities (as measured by the index) during this period. Secondly, the relative share of U.S. power declined steadily from its high of over 30 percent in the early 1950s to its present state of around 15 percent in the mid-1970s. The relative decline of the U.S. had more to do with the recovery of the rest of the world after World War II than with any real decline in U.S. capabilities over that same period of time. The U.S. has maintained this high share of total capabilities since the early 1970s. Russia's share of the power capabilities was remarkably stable over the Soviet period, but its share of world power dramatically changed at the break-up of the Soviet Union.

The overall capabilities ratio is a good starting point for understanding why it is that the U.S. and Russia have dominated the world arms trade since the end of the Second World War. Their superpower status and militarized economies could handle the production of large quantities of arms. Four of the six components of the capabilities index are especially relevant for weapons production. These components are military spending, military personnel, energy consumption, and the production of iron and steel.

Military spending is composed of both personnel and equipment costs. Higher levels of military spending reflect the commitment of a state to equipping its military (either with personnel, material, or both). The U.S. and Russia during the Cold War devoted a large portion of their economic capacity to defense spending. Russia's overall economy was severely distorted by the commitment of the state to matters of defense (Cooper 1991; Gaddy 1996). The ideological foundation of the state and the military as well as the Soviet experience in WWII resulted in an arms acquisition policy that called for massive amounts of stockpiled weapons. This policy led to a militarization of the economy to lay up large material stocks in preparation for future conflict and the potential for loss of access to resources (Gaddy 1996, 35). In addition to this internal strategy of massive material stockpiles for the military, the overall military economic

footing of the economy meant that many costs of weapons were hidden or unknown. This led to a situation in which the sale of arms for foreign currency appeared to be very profitable (Gaddy 1996, chap. 2).

Military personnel are needed to operate the weapons systems acquired by the state. The United States and Russia have large militaries. The military establishment in each of these countries has enormous political and bureaucratic power – and as such can win battles of acquisition budgets. In the U.S. this fact is also multiplied by the constituent factor of areas in which the military or defense industries are concentrated. Besides bureaucratic power, there is legislative support for acquisitions that benefit the constituents of individual members of Congress.

Both steel and iron production and energy consumption are measures of industrialization and the capacity of states to produce goods. These components are important in assessing the industrial potential for states to produce weapons.

Russia lost a large portion of its population at the break-up of the Soviet Union, including urban population. These measures may be important for the overall power of a state, but may mean less for arms exports. Figure 3.1 reflects the reality of both the Cold War, and the consequences of the break-up of the Soviet Union on Russia's overall power capabilities. Russia remains a dominant exporter of weapons, however. By examining the patterns of the four components of national power discussed above we may be able to draw some inferences about the ways that post-Soviet Russia has been able to maintain this capability.

Figure 3.2 is modeled after Figure 3.1, but shows the separate trends for energy consumption, iron and steel production, military expenditure, and military personnel in one combined figure. In general the overall pattern shown in Figure 3.1 holds for the individual components here. There is a large drop in the size of each of these components at the break-up of the Soviet Union in 1991. There are some interesting

differences in these patterns as well. In fact, these differences may account for the continued success of Russia as an arms exporter.

The figure for military expenditures is the one in which there is a visibly large divergence between the United States and Russia. Russia's military expenditures dropped precipitously after 1991 but then leveled off with slightly declining expenditures through 2007. U.S. expenditures, however, leveled off during the 1990s. After 2001, however, U.S. military expenditures skyrocketed. This is due to the two wars that the U.S. fought in Iraq and Afghanistan during the course of the entire decade.

While expenditures increased, this seems due to operational measures rather than long-term structural changes. This can be seen in the second trend showing the number of military personnel in Russia and the U.S. over this same period. Even during the period in which U.S. military expenditures increased by $200 billion, the number of personnel in the military remained static. Russia's military during the 199os underwent a slow and steady reduction, but the levels have remained steady (with slight increases) in the Vladimir Putin era (from 2000).

In order to understand the significance of these trends, it is important to put the numbers from the United States and Russia into the context of the other states in the world system. Table 3.1 summarizes the context of the U.S. and Russia across the four components shown in Figure 3.2. It compares the U.S. and Russia to both the world median and the world average for those values. In most cases the world average is probably a good indicator, but the mean is also very instructive for showing the gap between the capabilities of the U.S. and Russia and states that are "in the middle" as far as capabilities are concerned.

Table 3.1 shows the values for these indicators for the year 2000. I chose 2000 because it is a point at which these values seem to be holding steady. It also accounts for shifts in the world during the decade of the 1990s – a period in which the Cold War order was changing without a clear picture of what the new order would be. The striking

feature of Table 3.1 is the way that not just the U.S., but also Russia are far ahead of rest of the world in these indicators. In military expenditures, energy consumption, and iron and steel production Russia has values that are more than 10 times greater than the "average" state, to say nothing of the median states. In the case of military personnel the number of personnel is five times greater than the average state, but the median state is dwarfed by the size of the Russian (and U.S.) militaries.

Taken together Figure 3.2 and Table 3.1 illustrate that there are still many structural factors that can account for the continued prominence of Russia in the world arms transfer market – even if Russia's share of world power (as measured by the CINC) score was dramatically curtailed in 1991.

Arms Transfer Data

The data on arms transfers for this chapter, and throughout the entire dissertation, are taken from the Stockholm International Peace Research Institute (SIPRI) website. The SIPRI data are based on the actual deliveries of major conventional weapons. It uses dollar values (Trend Indicator Values or TIVs) to record the value of these delivered weapons systems. These TIVs are based on the cost of the production of weapons based on the characteristics of the weapons system and also discounts the price of used and refurbished weapons (SIPRI 2011e).

The use of these data is particularly well suited to calculate the volume of transfers to, from, and between all states. It provides a "common unit to allow the measurement of trends in the flow of arms to particular countries and regions over time" (SIPRI 2011e). These values are designed to be consistent over time, which is important for analyses, such as this one, which are interested in the way these patterns have emerged or changed over time.

The figures do not represent the actual sales price of arms transfers. Therefore it is not recommended that this information be compared to GDP, military expenditures, or other analyses that attempt to estimate the economic benefits or burdens of arms transfers (SIPRI 2011e). In the analyses that follow I primarily am interested in the relative value of the weapons being transferred and their effect on the supplier and recipient states. Therefore the SIPRI data are ideally suited for my purposes.

Russian and U.S. Arms Transfers 1950-2010

Now that we have explored the structural factors of power in both Russia and the United States, it is time to explore the actual patterns and process of arms exports by these states. Russia and the U.S. dominated arms exports during the Cold War. Given Russia's steep decline at the breakup of the Soviet Union it is reasonable to expect that its arms exports would decrease dramatically. They did, but only temporarily. Total arms transfers declined at the beginning of the 1990s, and Russia's share of those transfers declined as well. Some of Russia's share of arms sales was taken by the other members of the UN Security Council. The P-5 members collectively dominate the arms export market. Figure 3.3 illustrates the dominance of the world arms market by these states. It also illustrates Russia's declining share of that market and its subsequent rebound. By 2000, however, Russia had regained its former share of the arms export market.

Figure 3.3 shows the overall trends for arms transfers over the period from 1950 to 2010. The overall pattern of arms transfers does not really provide an answer for how or why Russia went from providing on average around 10 percent of the world's arms in the decade of the 1990s, but rebounded to a level of around 25 percent beginning at the end of that decade. Part of this increase in the share of arms provided by Russia may be found in the drop of total arms sales at the beginning of this trend. However, the fact that the total world arms transfer amount had nearly recovered to the 1998-99 level by 2009

and Russia's share had been maintained lends a sense of discomfort in accepting this explanation on its face.

Figure 3.4 also shows the dominance of the U.S. and Russia in the world arms market. It illustrates the pattern of arms sales by the U.S. and Russia as a ratio of sales by these states over the total value of sales by all states in each year. For each year the total TIV value for all transfers from Russia and the U.S. were calculated. The total value of all transfers for each year was also calculated. The percent of U.S. and Russian arms sales compared to the total TIV for all arms transfers in that year was calculated for each year. These values were then plotted to match the CINC and component plots of Figures 3.1 and 3.2.

Figure 3.4 illustrates a number of key issues. The pattern indicated by this graph is interesting in its depiction of the *relative* share of the U.S. and Russia of the world arms market. The first of these issues is the degree to which the U.S. and Russia dominate the world arms transfer market. The trend lines for the U.S. and Russian average percentage of arms exports show that, on average, the U.S. and Russia have accounted for nearly 70 percent of the value of arms transfers from 1950 through 2010. A second issue is that the underlying cyclical nature of the market means that Russian and U.S. arms sales fluctuate from year to year, as does the size of the arms market. When one of these states makes a number of sales in a year, the share of the other state will drop even if its sales remains steady from the prior year.

The most important pattern for the purposes of this analysis is the degree to which Russia's arms exports suffered during the 1990s, and the dramatic fashion in which they bounced back at the beginning of the 2000s, and then fell off a bit again. What factors led to the recovery? To what extent does this recovery reflect deliberate policy (foreign or domestic) choices by the Russian government? Chapter 5 addresses some of the potential domestic answers for this recovery. One of the most fruitful ways to explore the potential factors accounting for this recovery in Russia's arms exports is to more closely

examine the patterns of Russian arms exports in this time period. The following section makes a closer examination of Russia's arms exports.

Russia's Recovery – Patterns of Arms Transfers in the 2000s

Russia's two largest arms customers are China and India. One of these two states has been the largest purchaser of Russian-made weapons in each year since 1992. One way to account for the drop in Russia's total share of world arms transfers in the 1990s is to examine the patterns of imports from these two largest customers in the two decades since the collapse of the Soviet Union. Figure 3.5 shows the value of the arms (SIPRI TIV) for the state that imported the most weapons from Russia in each of the years noted.

What is clear from Figure 3.5 is that Russia's largest customers bought many more weapons from Russia (by value) in the decade of the 2000s than they did in the decade of the 1990s. The average value of arms from the top importers in each decade more than doubled from the 1990s to the 2000s. In order to account for this we will need to examine why the volume of weapons purchased changed so dramatically. The answer to this question will require us to look at the importing states – India and China. That will be addressed in the next section of this chapter. For now we will focus on the importance to Russia of these top importers.

Just how important is the top customer (and in the case of India and China, top customers) to Russia's arms exports? One way to examine the impact of the top importer is to see what percentage of total exports in each year goes to the top buyer. Figure 3.6 illustrates the ratio of total sales for which the top seller accounts in each year from 1992 to 2010 as well as the average share of sales for the top importer for the entire time period.

On average, the top importer in each year accounted for nearly 40 percent of all Russian arms transfers during the 1990s and 2000s. During the 1990s the ratio was on

average less than 0.4, while during the 2000s the ratio was, on average, greater than 0.4. What does this mean for Russia? It indicates that Russia's top arms customers are an important source of the overall volume of Arms exports. It also means that overall the top importers seem to have gained importance during the decade from 2001 to 2010. This dynamic of the top importers accounting for the large volume of arms transfers will be considered briefly in the following section. It is also a theme that I will return to in Chapter 7 when I explore some of Russia's arms relationships in-depth.

In order to further understand the overall picture of Russia's arms exports in the past decade I compiled the data for the top ten importers by total value of imports from 2001 to 2010. I also compiled a list of the top ten states by the number of years in which an arms transfer between them and Russia occurs. Table 3.2 shows these two rankings side by side.

The two lists have some overlap with one another. The top 3 Russian arms importers by value of arms and by the number of years in which arms transfer transactions occur are the same. The last four states in the transaction-year category are interesting because they are not among the top ten states in terms of total value of their arms transactions. North Korea is the standout state in this list. The value of the arms imported over the course of the entire decade puts North Korea solidly in the middle of all the states with which Russia traded. During the decade Russia made arms transfers to 62 states. The value of North Korea's weapons is number 32 on the list.

This exercise of comparing the transaction year ranking and the value of arms ranking raises an interesting question about the relative importance of frequency and value. For instance are North Korea, Kazakhstan, and Syria viewed as important trade partners on the order Yemen or Indonesia who purchase more arms, but with less frequency? The puzzle of Syria presented at the beginning of chapter 1 indicated that relationship with Syria is regarded as very important to Russia.

China and India – Increased Arms Purchases in the 2000s

In this section I examine the demand side for Russian arms and briefly examine reasons why the demand for weapons in China and India increased in the last decade. The patterns in figures 3.5 and 3.6 show that from 2001 to 2010 the top arms importer from Russia imported more weapons on average and accounted for a higher percentage of total arms sales on average than in the decade previous. India and China were split essentially evenly as to which state was in that number one position over the course of both decades. By total volume China has purchased more weapons, but the two states together dominate exports by the Russian state.

SIPRI (2008) examined regional trends in South Asia for the period of 1997 to 2007. In that time India's expenditures increased by 64 percent and accounted for 80 percent of the total regional military expenditure (SIPRI 2008, 194). Pakistan, India's primary rival, increased its expenditures in that same period by 34 percent. Part of this military build-up can be accounted for by the conflict between India and Pakistan over Kashmir. The U.S. conflict in Afghanistan has also affected the increased military spending in these neighboring states. Another factor that can help to account for India's increased military spending and concomitant increase in arms purchases from Russia is its overall economic growth in the same period and its "…rise as a regional power" (SIPRI 2008, 194).

Over the same period, China has also increased its military spending. China's military spending has increased both in absolute terms and in terms of military spending as a percentage of its GDP. Between 1998 and 2006 military spending as a percentage of GDP increased from 1.7 to 2.1 percent (SIPRI 2008, 195). This increase has come as a result of the reform of the Chinese military over the past decade. SIPRI notes that the in this period there has been a goal to "…transform the PLA from a mass army trained and equipped for protracted wars on the Chinese Mainland into a 'slim but strong' force able

to engage in local high tech wars by 2010 and a high-tech force able to project power globally by 2050" (SIPRI 2008, 196).

The increased military spending by China and India that has come as a result of their economic growth and their status as regional powers can account for much of Russia's return to prominence in arms sales in the 2000s (Figure 3.3).

The Clientele – Comparing Russian and U.S. Arms Customers

The various client states for U.S. and Russian weapons are as diverse as the pool of states from which they come. Over the course of each decade the U.S. made sales to around 90 states, while Russia had sales to around 70. The next chapter in which I explore the network dynamics of these sales of arms between states shows the overlap that does exist in customer states. In this chapter I simply note that the descriptive statistics that are shown for the "average customer state" for both the U.S. and Russia are not necessarily mutually exclusive.

Capabilities, military type, and regime characteristics are the three state characteristics that I examine as part of the overall network test in the next chapter. Before examining using these characteristics as explanatory variables for the way that the arms network evolved I examine them individually. Figure 3.7 shows the averages for these characteristics across all customer states in each decade for both Russia and the United States. In order to obtain these values I first created a pool of the states which purchased arms from either the United States or from Russia in each of the time periods – 1992 to 2000 and 2001 to 2010[13]. I then took an average of the value for each state across the (approximately) ten-year time frame. After obtaining the average for each state, I took the average for all states within each decade.

[13] I used the 1992-2000 cut off to account for Russia's changed status at the end of the Cold War. I argued earlier that the break-up of the Soviet Union dramatically affected Russia's capabilities. This cut-off was chosen to reflect this fact.

In other words for each measure there are four distinct pools: Russia in the 1990s, Russia in the 2000s, the U.S. in the 1990s, and the U.S. in the 2000s. The states that belonged in each pool then had their characteristics averaged for the decades and the averages were then averaged for each pool. One of the reasons for averaging across each decade was to account for the variation in the timing of arms purchases by each of the purchasing states. This timing could be compounded by changes within the state. By averaging the state's values before averaging to find the "mean state value" I minimize the chance that the value I choose for any one year in the decade under consideration is an outlier for that state[14]. It also helps minimize problems of missing data.

This chapter began with a description of state capabilities. This measure of capabilities is a proxy for hard power within the international system. The COW capabilities score is composite index that measures the relative capabilities of all the states in the international system. The earlier analysis showed the trends in U.S. and Russian capabilities from 1950 to 2007. One of the puzzles that the previous sections of this chapter explored was the upsurge in Russian arms sales during the 2000s which came in the face of its own declining share of power in the international system as it is measured by the CINC score.

The CINC score is a good first measure across which to compare the different customer bases of the United States and Russia. It is not the only measure by which states can be compared. The military potential of the purchasing states is also a good measure to take into account. Military spending and the number of military personnel in each state are components of the CINC score, but they also may be masked by the other components. Since arms transfers directly affect the military forces of a state I wanted to have a measure of state military capability.

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[14] A similar approach was taken by Allsop and Weisberg (1988, 1003) to analyze weekly public opinion survey research from different polls.

All militaries are not the same. The two broad types of military force are the professional army and the conscript army. In the west the trend has been for states to move to the all-volunteer professional army. Haltiner (1998, 490) notes that one general trend is that countries with all-volunteer forces "…tend to have lower budgetary defense costs as a percentage of GDP than those operating conscript systems and that political rights, as measured by the Freedom House Index of Political Rights, seems to be better developed in countries with volunteer recruitment." The reasons for these items are complex and not a primary concern of the overall analysis. However, military type does offer two important pieces of information that are important for an analysis of spending on arms to equip those forces.

The first is that states that have mass armies as opposed to professional armies may have a preference for certain weapons systems. They may also have a preference for items manufactured for that type of military. Weapons manufactured by the Soviet Union (and continued by Russia) were designed for a mass conscript army with a professional officer corps. States that have a similar military structure may seek out such weapons systems.

The second issue relates to the underlying reasons a state may choose a conscript army model vs. a professional soldier model. While a number of arguments exist for promoting a conscript service model in democratic states (Haltiner 1998), the list of states in 2005 that relied on conscription rather than on a professional military ran the range of polity scores from autocracies (-7 score, Azerbaijan and Belarus) to strong democracies (10 score, Denmark, Norway, and Sweden). States with volunteer forces are strongly democratic, scoring either a 9 or a 10 on the Polity2 measure. Table 3.3 shows the relationship between Polity score and military organization for a limited number of states in 2005. Data on military organization comes from Toronto (2007).

In order to assess the military characteristics of the mean purchasing state for each state in each decade I constructed a measure that takes into account both military

personnel and military spending within the purchasing states. This measure takes the mean total spending on the military by state and divides it by the mean number of personnel in each state. This measure of per (military) capita spending is a crude measure that reflects an emphasis on expensive equipment operated by highly trained professionals (the model of the professional army.) Figure 3.7 (panel 2) shows this measure graphically. It is not surprising that U.S. customers spend much more per soldier[15] than does the mean Russian customer.

In addition to issues of power and the military, a third dimension of comparison of the two states is the characteristic of the ruling regime. The Polity score measures various dimensions of a states regime and assigns a score on these dimensions (Marshall and Jaggers 2002). The composite polity score is a scale that is used across political science literature as an estimate of the quality and characteristics of state's government. It is designed to capture features of autocracy and democracy in a state that may be operating simultaneously. The Polity scores are sometimes assigned labels of Autocracy (-10 to -6), Anocracy (-5 to +5), and Democracy (+6 to +10).

There is some differentiation between U.S. and Russian customers on the democracy dimension. Interestingly, the democracy scores for the customers of both state remained pretty stable over the course of the two decades examined here. The mean polity score for all U.S. customers during the 2000s was 5.4. This was nearly a point higher than its value of 4.6 in the 1990s. Russian customers' mean polity score moved from 1.1 in the 1990s to 1.7 in the 2000s. The U.S. value puts its mean customer as a state that is on the verge of transitioning to democracy (+6 polity score), while Russia's mean customer is an Anocracy with minimal autocratic tendencies. This mirrors the movement of many states since 1992 away from autocratic forms of governance.

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[15] Here used in the generic sense as member of the armed forces. I am sensitive to the plight of seamen, airmen, and marines who feel shortchanged by the soldier terminology employed by the non-military community to describe all members of the armed forces.

In addition to the state power, military, and regime characteristics, Figure 3.7 (panel 4) shows the mean value of arms purchased by states over the course of each decade. This figure helps to explain some of the trends seen in Figure 3.3. In the 200s, Russia's mean customer spent more on arms than did the U.S. mean customer. This is a reversal of the trend in the 1990s. This change didn't just come from increased spending per customer by Russian clients, but from a corresponding decrease in spending by U.S. customers.

This particular mean is heavily influenced by the top customers in each state. Some of this skewed distribution is shown in Table 3.2 which shows top Russian importers. Figure 3.8 shows how each of the customer states for Russia and U.S. in each decade contributes to this mean score.

In both the U.S. and Russian case the mean is being heavily influenced by the top purchasers. Russia's distribution is more heavily skewed with India and China in the 2000's doing some heavy lifting. The U.S. has more customers near the top, but none of these customers is spending the same volume as Russia's.

It is appropriate to end this analysis of state customer characteristics with a discussion of Figure 3.8. These figures show that the purchase of arms follows a power law. The power law distribution differs from the normal distribution that is more familiar. Power law distributions do not have a peak. In these distributions there are extreme outliers from the "average" small values. These same power laws have been found to be a critical feature of many networks. Barabasi (2003, 207–8) discusses a study of the pharmaceutical industry and how it follows a similar pattern. Watts (2003) shows this pattern in the link structure of the world wide web.

Conclusions

This chapter has focused on identifying the characteristics of the two main states involved in the sale of weapons to other states. More importantly this chapter examined the changed power capabilities of Russia relative to the United States. The U.S. and Russia cannot escape the legacy of the Cold War and the asymmetric (hegemonic) power that each of them accumulated and used during that period. With the collapse of the Soviet Union, Russia's share of world power diminished significantly. This diminishing power, however, did not extend completely to its military potential. Russia maintained its capability to produce arms that other states, particularly China and India, were willing to pay for.

Russia's fortunes on the arms market increased dramatically in the past decade. This chapter identified the increased volume of spending by India and Russia as one of the causes of this upswing. Each of these states is a rising regional power and the spending on their military spending is tied to the role that each of these states plays as regional powers. The increased spending by China is part of its larger military build-up that has accompanied its own dramatic rise in power both regionally and globally. India's increased spending is tied to economic prosperity as well as continued rivalry and conflict on its borders.

There has been a shift in the mean capabilities of the states supplied by the U.S. and Russia from the 1990s to the 200s. On average, states that purchase weapons from Russia are more powerful than the average purchasing state of U.S. weapons. Much of this discrepancy is also explained by this close relationship between Russia and China and Russia and India. Russia's customers tend to have larger conscript armies and more ambiguous political regimes. U.S. customers are more democratic and tend to have smaller, professional military forces.

This analysis of the components of power within states juxtaposed with the patterns of arms trade by these states suggests that more information is needed to understand the patterns of arms sales. The U.S. experienced no great changes in its own capabilities at the end of the Cold War. Its arms customers have lower capabilities in the last decade (2001-2010) on average than U.S. arms customers in the 1990s. Russia's customers' capabilities, on average, have increased. Part of this is due to the increased share of capabilities by both India and China over that same period. This chapter did not address the question of whether changed policies within either Russia or the United States led to changes in the patterns of their recipient states.

In the next chapter the characteristics examined in this chapter become explanatory variables in a model of arms network formation. The results of that model along with the insights gained from this chapter on state capabilities are then used to construct a series of case studies to examine decision-making on arms sales within each of these states (Chapters 5, 6, and 7).

Figure 3.1 - U.S. and Russian Capabilities 1950-2007

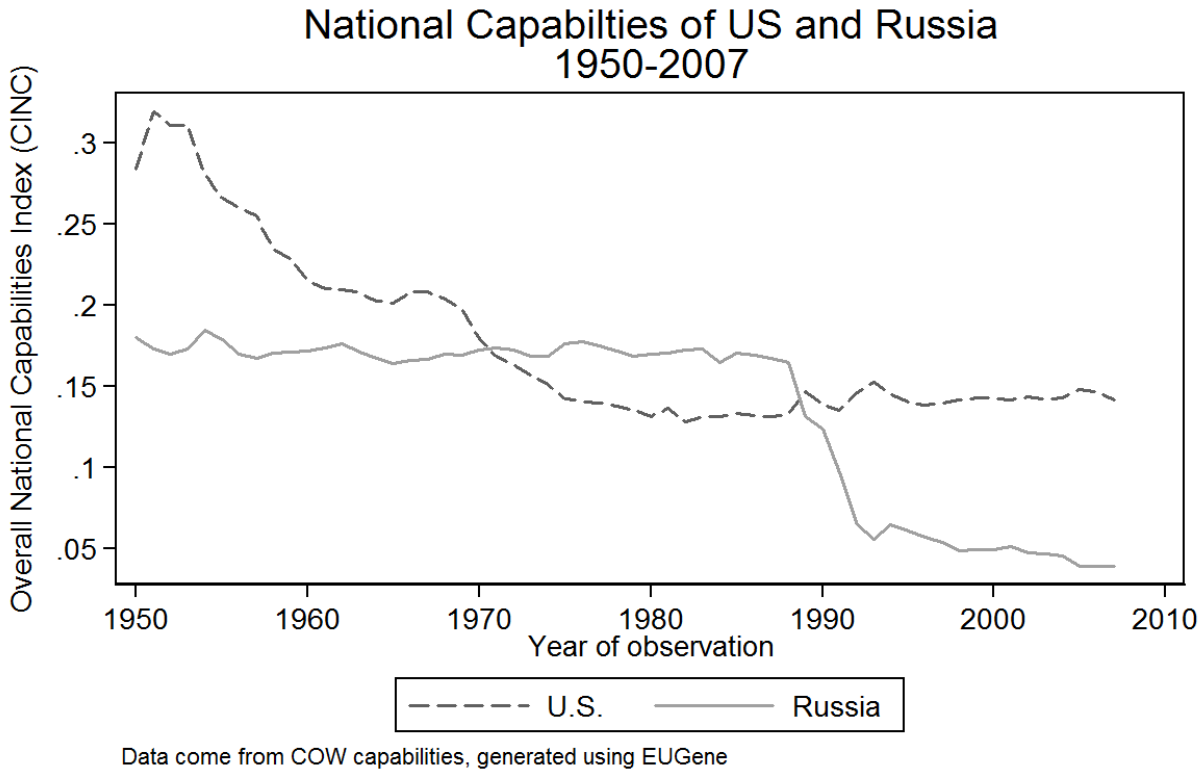
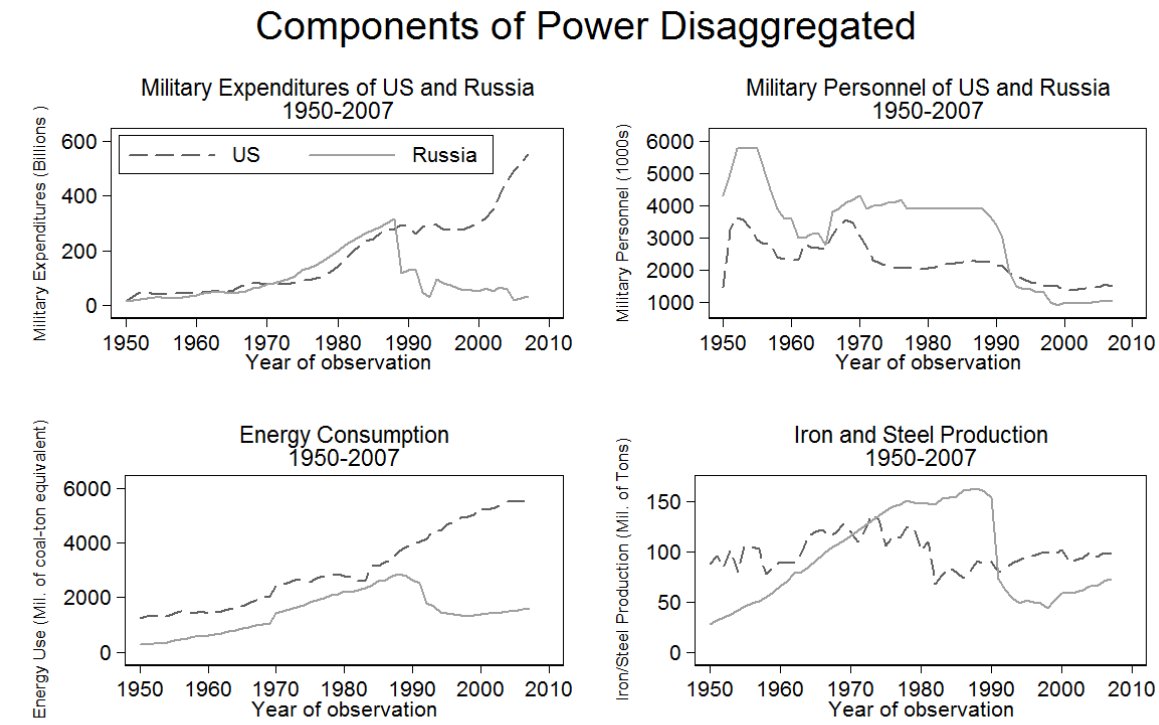


Figure 3.2 - Components of National Power Disaggregated



*Data come from COW capabilities, generated using EUGene

Table 3.1 - Comparing U.S. and Russia Components of Power to World Average 1991-2007

Variable	Mean	Median	U.S.	Russia
Military Expenditures ($Billion)	4.4	0.27	303	52
Military Personnel (millions)	0.119	0.03	1.366	1.004
Energy Consumption (Mil. Coal Ton)	124.586	8.433	5264.636	1403.714
Iron and Steel Production (million tons)	4.438	0.005	101.803	59.136

Figure 3.3 - Russia, U.S., and Permanent Five Members Arms Exports

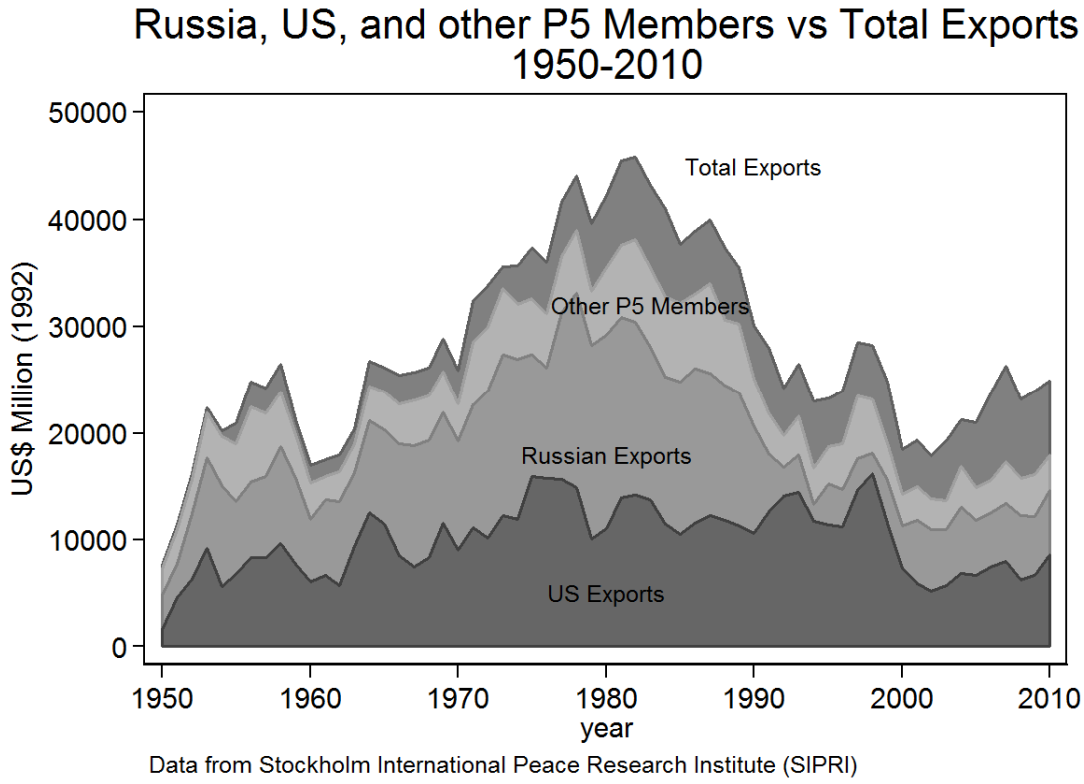


Figure 3.4 - U.S. and Russian Share of Total World Arms Sales

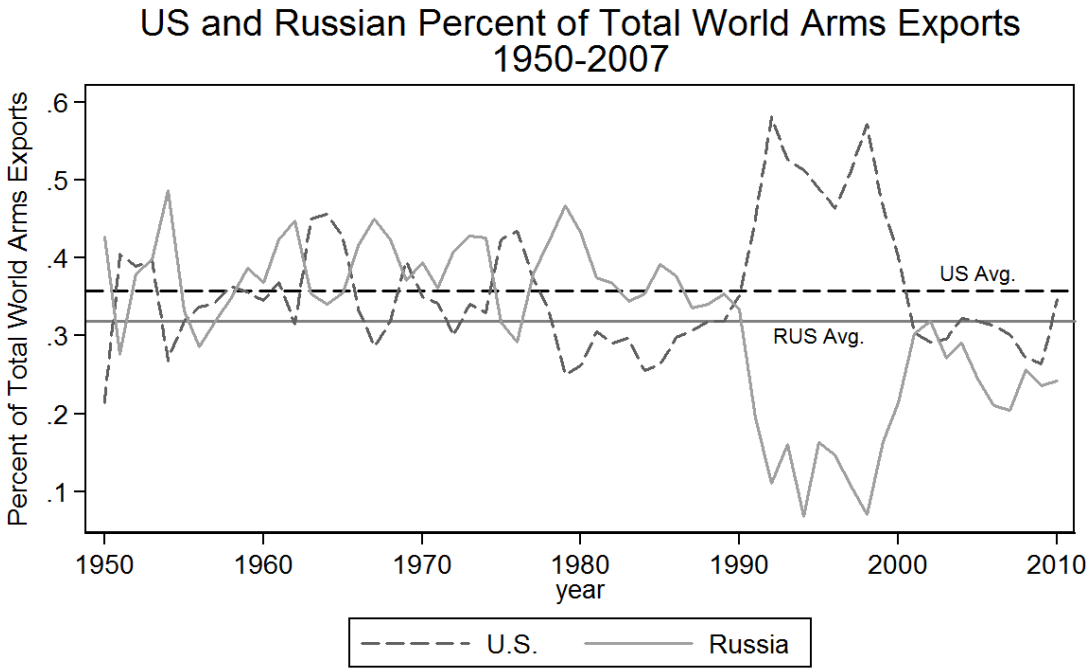


Figure 3.5 - Russia's Top Import Customers 1992-2010

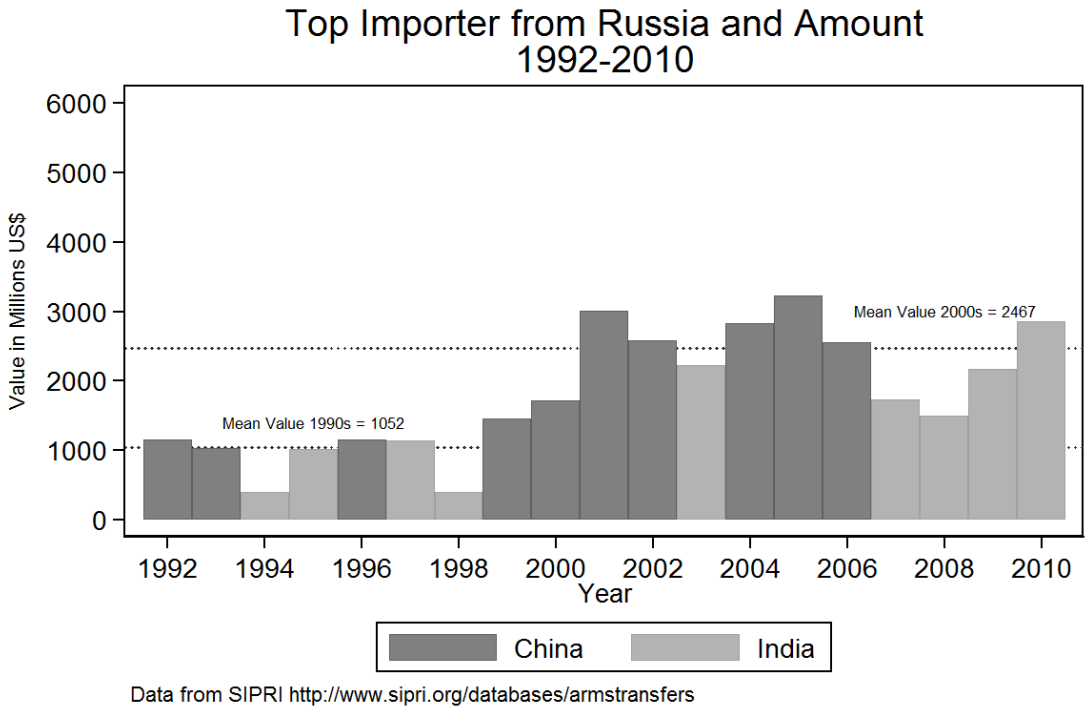


Figure 3.6 - Percent of Russia's Top Customer Sales to Total Sales

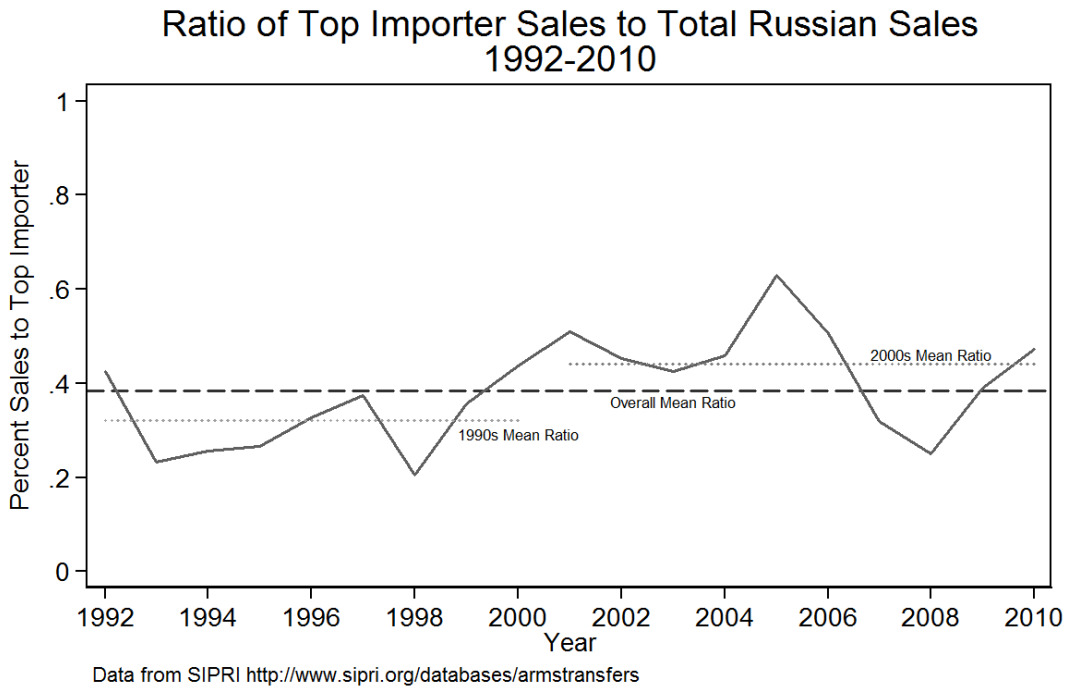


Table 3.2 - Russia's Top Importers by Value and Frequency 2001-2010

Patterns of Russian Arms Exports 2001-2010							
Top Ten Importers (Value of Arms)				Top Ten Importers (# of Transaction Years)			
Rank	Total Arms	Country	# years	Rank	Total Arms	Country	# years
1	20204	China	10	1	20204	China	10
2	16237	India	10		16237	India	10
3	4687	Algeria	10		4687	Algeria	10
4	2125	Venezuela	5		1506	Vietnam	10
5	1506	Vietnam	10		1175	Iran	10
6	1375	Malaysia	6		751	Sudan	10
7	1175	Iran	10		81	North Korea	10
8	1062	Yemen	4	8	456	Syria	9
9	751	Sudan	10		395	Kazakhstan	9
10	655	Indonesia	6	10	648	Egypt	7

Total arms in $US Million Dollars. Data come from SIPRI.

Table 3.3 - Military Organization and Polity Score

Distribution of Military Organization Type by Polity2 Score

	Polity2 Score									
Military Organization	-7	-3	-2	5	6	7	8	9	10	Total
Conscript	2	1	1	1	2	2	2	6	11	28
Volunteer	0	0	0	0	0	0	0	2	10	12
Selected countries. Data come from Toronto (2007) and Marshall and Gurr (2002).										40

Figure 3.7- Characteristics of U.S. and Russian Arms Customers

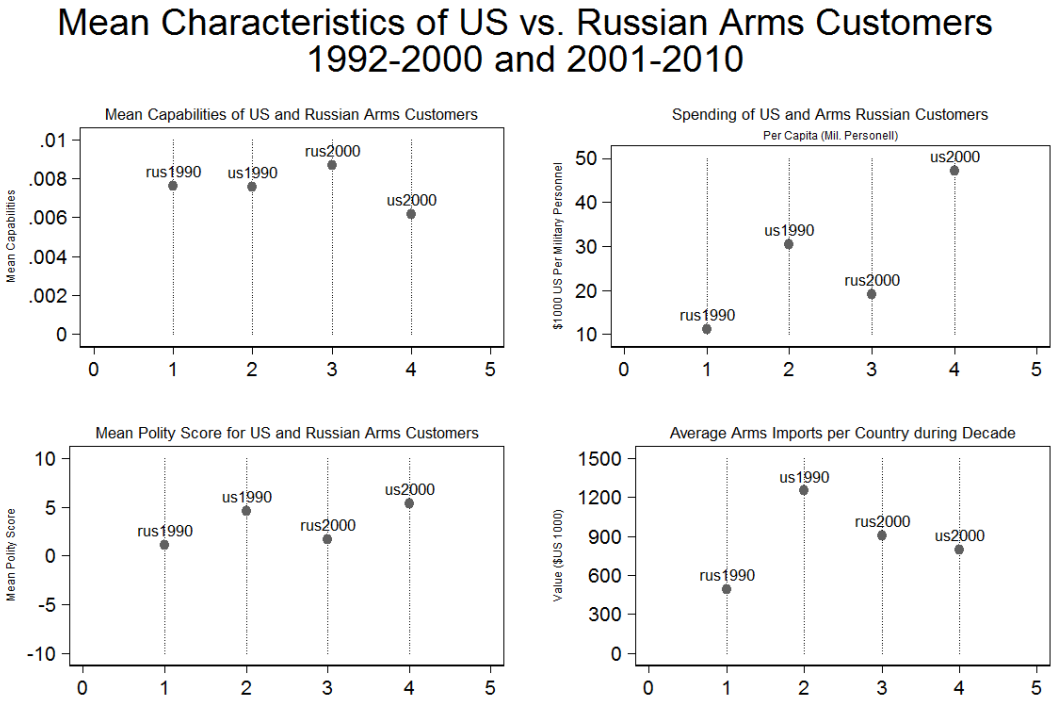
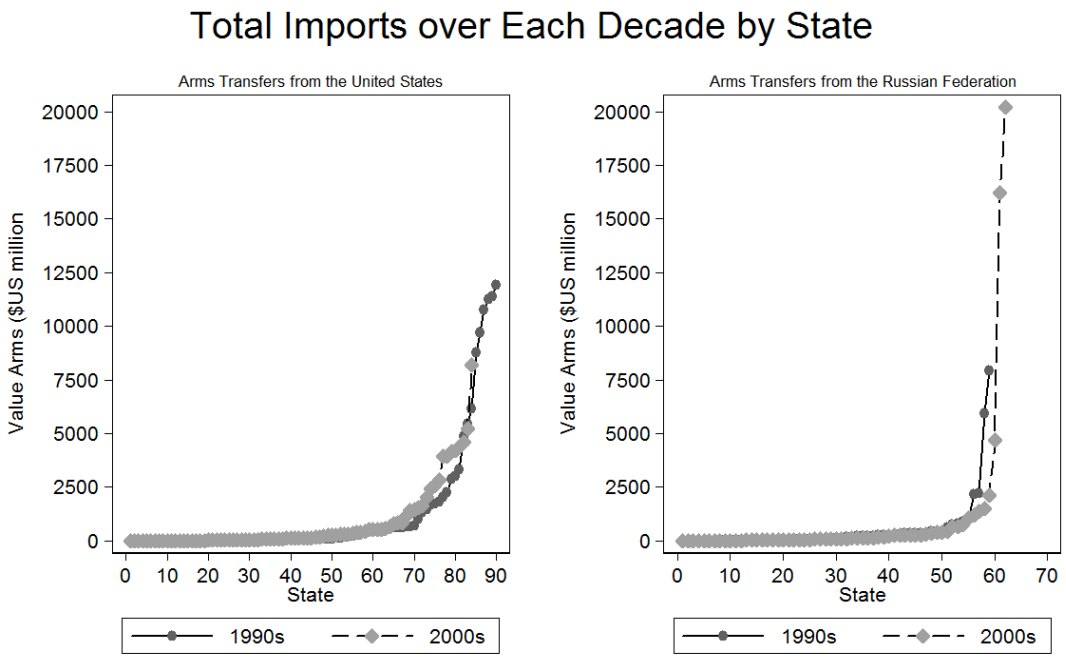


Figure 3.8 - Import Values for U.S. and Russia Customers 2001-2010



Imports to individual states ordered by value.
These graphs indicate trends and show the skewed distribution of arms imports.

CHAPTER 4 – ALL TOGETHER NOW: STATE INTERACTION AND THE CREATION OF THE ARMS TRANSFER NETWORK

Introduction

The world of arms trade is a network. The arms sale network is a subset of the possible relations among all the states in the system, and in many mirrors the overall pattern of relations between states. In Chapter 3 the focus was on describing the characteristics of the two most important states within this particular network. Most scholars treat the United States as the most important state in the international system. Russia is an important state, but is not in the same league as the U.S.. In the arms transfer network Russia is more of a peer to the United States. The previous chapter considered the attributes of these two states. This chapter incorporates those attributes into the analysis of all world arms transactions in context.

So far this analysis of the world arms trade has utilized traditional tools and theoretical approaches. In fact, the descriptive statistics of both the U.S. and Russia as well as the analysis of their arms customers has not utilized many of the sophisticated statistical tools that are available and widely used in international relations research. This chapter moves into more complex analysis of the phenomenon of arms transfers. In this analysis I use a statistical network analysis tool, known as an ERGM, that is not yet widespread in political analysis (Cranmer and Desmarais 2011). Before describing the data, method, and results of the ERGM analysis, I address the issue of what it means that arms sales constitute a network of relational data.

In Chapter 2 I laid out my basic case for utilizing network methodology to explore state interaction. Before outlining the method used to analyze the arms trade network, the data used in this analysis, and the results of the model, I describe how the arms trade is a social network. I emphasize the social aspect of the network, and address some of the

theoretical implications of making that assumption about states in the international system.

The most common definition of a social network is the structure of "…a set of actors, some of whose members are connected by a set of one or more relations" (Knoke and Yang 2007, 8). This short and non-specific definition can be applied to many different types of relationships and interactions. Social network analysis has been applied to studies of the brain, food webs in the North Atlantic, wealth and inequality, and the internet in addition to the many studies based on the relations between individuals in various situations (Barabasi 2003; Buchanan 2002; Watts 2003).This diverse set of studies utilizing network analysis also includes studies by scholars in international relations (Carpenter 2007a, 2007b; Dorussen and Ward 2008; Hafner-Burton and Montgomery 2006).

The transfer of coercive capabilities to another state signals a level of trust by the selling state. This trust, at its most basic level, reflects the hope that the weapons supplied by State A to State B will not be used to attack State A. There are many possible explanations for why a state may trust another state not to turn around and use those weapons against them. A realist might argue that these transfers do not show trust in the receiving state, but simply reflect the balance of power as it exists in the world. The patterns of arms transfers by Russia shown in Chapter 3 after 1991 may support this argument. During the Cold War the United States and Russia did use weapons to "balance" out the capabilities of their proxy states in the Middle East (Kinsella and Tillema 1995). Russia's primary customers are India and China, two increasingly powerful regional actors whose capabilities may enable them to balance together against unilateral actions from the United States.

A liberal perspective may explain these arms transfers as just another exchange of goods. Arms sales are economic transactions that operate on the principles of competitive advantage. States may simply exchange guns in return for butter when one

state has the advantage in butter production and the other the advantage in guns. This perspective may see weapons as an essential state commodity, but may take the perspective of Gray (1993) of considering the weapons as tools in the hands of a state. In other words, this relationship is built on the principle that states trust one another not to misuse these tools, but recognizes the rights of states to have the tools. Defense economists have made arguments about the domestic advantages of exporting arms (Hartley and Martin 2003). This advantage rests on the fact that exporting weapons may save local businesses and preserve domestic capability of weapons production. This liberal economic perspective does not account explicitly for the fact that arms sales are highly regulated and monitored by the states themselves.

A constructivist account of these weapons sales may take the previous reasoning about states and note that weapons make the state (Porter 1994). States may seek to legitimize each other by providing these weapons. This reasoning could focus on the symbolic value of weapons to show the power of the state's regime (Suchman and Eyre 1992). A state that has the weapons to defend itself from external threat may bolster its credibility in the international realm despite its inability to provide public goods to its own citizens (see Rotberg 2004). This state-level interaction may not support an argument about the anarchy of states, but would support a constructivist argument about the social interaction of states creating an international "state culture" (Wendt 1999, 139–144) in which weapons are important for establishing a state's membership in the club of sovereign states.

Network analysis as a methodology can help us to set aside some of these basic philosophical "why" questions related to the major International Relations paradigms. Not understanding the deep-seated reasons why so many states trade coercive capabilities does not hinder us from examining the structure of the trade, the consequences of that trade on states, and even the reasons that state leaders themselves give for these transactions. We can, in effect, remain agnostic to these theories while fruitfully

examining substantive issues that arise from the facts of arms transfers. The overall framework of this research project is to examine arms sales from a foreign policy perspective.

It is not possible to ignore the dominant paradigms of International Relations when doing so. I think that power, money, and identity are all involved in the sale of weapons, but knowing exactly how they are, or whether one perspective is better in this case is not the primary aim of the overall project or this chapter. Elements of the liberal perspective (regime type) and realism (military spending) are included as variables within the ERGM model. The social network aspect of the model provides one way to think about states exchanging material goods or ideas and having that structure further interactions.

There are a number of reasons to focus on arms transfers from a network perspective rather than as a series of dyadic transactions. One of the primary reasons for examining networks from a more holistic point of view is the social research phenomenon of macro-micro relations (Snijders and Bosker 2011, 11–12). These macro-micro relations in multilevel modeling typically involve the study of individuals within groups, but social networks help researchers to understand group structures that may not be immediately obvious or clearly defined. The basic idea of multilevel analyses is that the two variables of interest may be embedded in a larger structure that has an effect on the interaction between those two variables.

Snijders and Bosker (2011, 11–12) note three ways that a larger social structure can affect the relationship between two sub-group level variables. The first way that the macro influences the micro is the case in which the macro environment directly shapes the variable of interest. For example, individuals in a social group with more explicit religious norms will tend to have more conservative views on contraception (2011, 11).

A second way that this macro-micro interaction can be taken into account is to think of the effect of the group on the individual, even when other explanatory variables

are taken into account. This would modify the previous example with the caveat that this generalization applies to individuals of a certain income or educational level.

The third way in which the macro level can influence the micro level is in the case of "macro-micro-interaction" (Snijders and Bosker 2011, 11). This interaction is also called cross-level interaction. The relationship between the independent and dependent variable are dependent on the group. When thinking of ways in which the group affects individuals, it is also important to think of the way in which individuals can affect the group.

This discussion of group effects on individual behavior is important to the overall argument that I am making about the structure of the arms network. The arms "network" is composed of all the individual transactions in which individual states engage. I am not examining different arms trade sub-groupings, only the complete network of all arms transactions. This one-group design limits some of the differentiation that exists between different subgroups (cliques, for example, in network parlance). The network that emerges from these interactions still includes the states that do not engage in the arms trade. This network is the full network in that it includes all of the potential nodes in a network – even those who have not formed relationships (or the type of relationships that we are interested in here) with other states.

The social network analysis methodology that I explain in the next section provides tools with which to explore some of these micro-macro questions. Specifically the Exponential Random Graph Model allows us to examine how various actor (state) characteristics affected the way in which the network of arms formed. This provides a check on some of the basic assumptions I made in Chapter 3. Does capability, regime type, or alliance structure account for the ways in which most states engage in the transfer of weapons between one another?

If the answer to this question is an unequivocal "yes," then the micro-level decisions that states make may be relatively unimportant to the study of arms transfers in

general. If such interactions are governed by forces that operate at the state level rather than processes that occur within states, we can focus research into arms transfers at the appropriate level of analysis. In other words, the ERGM allows for a test of the proposition that the state level is an appropriate analytical field for understanding the world arms trade.

Exponential Random Graph Models

The logic of ERGM is pretty straightforward. The dependent variable is essentially the network that exists and which we observe. This network is made up of nodes (actors) and edges (relationships between the nodes). This existing network is compared to a randomly generated network with same number of nodes and edges. This relationship can be modeled in such a way that the probability that each of these relationships exists can be approximated.

Robins et al (2007) provide a useful starting point for discussing the utility of modeling social networks using techniques such as the ERGM[16]. They note (Robins et al. 2007, 374) that "...social network behavior is complex and stochastic models allow us to capture both the regularities in the processes giving rise to network ties while at the same time recognizing that there is variability that we are unlikely to be able to model in detail." In that sense the stochastic modeling process for examining social networks is similar to the logic for modeling other non-network phenomena in political science. Social network analysis moves us beyond the use of descriptive statistics as an end and into the more dynamic idea of finding ways to describe *how* a network evolved.

Model construction for ERGM follows a fairly straightforward logic: 1) each network tie (relationship between nodes) is regarded as a random variable; 2) a

[16] These models are sometimes also referred to as p* models.

dependence hypothesis is proposed; 3) the hypothesis (2) above implies a particular form to the model; 4) parameters are simplified through homogeneity or other constraints; and 5) parameters are estimated and interpreted.

There are a number of ways to write the general equation for the ERGM model. The most basic representation takes the form of:

$$P(X = x) = \frac{exp\,[(\theta' z(x)]}{k(\theta)}$$

In this formulation, θ represents a vector of model parameters, *z(x)* represents a vector of network statistics, and *k* is a normalizing function that basically provides a probability comparing the current network to a randomly generated network with the same number of nodes (Shumate and Palazzolo 2010, 348).

The ERGM model is such that it gives the "...probability of observing a set of network edges (and non-edges)" (Robins et al. 2007) and is given by the following more specified equation:

$$P(Y = y|X) = \frac{exp\,[(\theta^T g(y, X)]}{k(\theta)}$$

Where *Y* is the (random) set of relations in a network, *y* is a given set of relations, *X* is a matrix of attributes for the vertices in the network, *g(y, X)* is a vector of network statistics, *θ* is the vector of coefficients, and *k(θ)* is a normalizing constant.

This model can be expressed as the log-odds that any given edge will exist given the current state of the network (for an individual within the network):

$$logit\big(Y_{ij} = 1\big) = \theta^T \delta[g(y, X)]_{ij}$$

In this equation Y_{ij} is an actor pair in *Y* and $\delta[g(y,X)]_{ij}$ is the change in *g(y,X)* when the value of y_{ij} is changed from 0 to 1 (S. M Goodreau et al. 2008, 8).

It is the interplay of the relation between the nodal characteristics -or state characteristics in my project- and the network characteristics that makes the ERGM model an improvement upon the general work on networks that has been done in political

science. Rather than stopping at describing and graphing the network and then performing a typical analysis that treats each dyadic relationship as independent, the ERGM model allows us to bring these characteristics into the analysis of the network characteristics.

In order to explore these features it is necessary first to be able to fit arms transfer data into a network form for analysis. Once the basic network data are arrayed in the proper form, we can add additional vectors of nodal characteristics X that are of interest. Nodal (actor) characteristics are not the only factors that can be examined in trying to predict network formation. Other network characteristics can be used as covariates in the ERGM analysis. These network characteristics allow us to examine some of the structural causes of tie formation.

The ERGM is sensitive to model degeneracy when the models fit the data poorly (Cranmer and Desmarais 2011, 74). However for applied research, this problem of degeneracy can be a plus. A model that is improperly specified will not converge, and will thus degenerate. As they note(2011, 74) "…unlike standard regression models, ERGMs with a set of 'standard controls' that do nothing to predict the outcome will cause degeneracy problems and thus should not be specified."

The use of the ERGM to explore arms transfers, then, offers the advantage of allowing researchers to account for the structural factors that networks represent, while also accounting for the individual characteristics of states that were discussed in detail in chapter 3. The ERGM model predicts the generation of the entire network, which accounts for not only the strictly dyadic relations that are often the primary object of study in international relations but also the tertiary and other relationships that may appear through the complex interaction of the states that make up the network.

Constructing the Network

The dependent variable in the ERGM model is the network that exists. That means that data on arms transfers need to be converted into a network before analysis can begin. Since this ERGM analysis is being used to explore how state-level characteristics influenced the arms transfer relationships that emerged, it is necessary to account for these characteristics. In the section below I discuss the data and assumptions involved in constructing the networks examined. I also discuss the data sources and choices I made regarding the characteristics data for the nodes (states) that make up the arms network.

The conversion of dyadic transfer data into network data entails a number of assumptions. Here I will discuss the conceptual issues in network specification. I then discuss the specific issues that arise in network specification in this case. The first step that must be made in performing network analysis is deciding what constitutes the network. In network terms this is a decision between a realist[17] and nominalist strategy (Knoke and Yang 2007, 15–16). In a realist strategy, the network is bounded by the "…presumed subjective perceptions of system actors themselves" (Knoke and Yang 2007, 15). In the nominalist strategy the network is bounded by imposing "…an *a priori* conceptual framework", which in many cases is some sort of formal or legal membership in a group (Knoke and Yang 2007, 16).

The fundamental problem with the international arms transfer network is that arms transfers are neither permanent nor steady. By permanent I mean that some arms transfer relations end - that is actually an important theoretical proposition of studying the network - understanding the dynamics of how and why these relationships change. By

[17] This should not be confused with IR realism. The term "realist" for network specification in social network analysis is distinct and is described in more detail in the paragraph.

steady I mean that even a somewhat permanent relationship (i.e. arms sales from the U.S. to Austria (see figure 4.1) may not involve the transfer of weapons in every year. These two problems pose two theoretically important constraints that lead to different strategies in specifying the network.

The first strategy is that when we wish to examine long-term trends we can take a snapshot of the network in any given year and then assume that it is representative of the long-term shape and structure of the network. The second strategy is to aggregate multiple observations into one network. That is we can count if a pair of states has any arms sales in any one year in a series of years, (2,3,5, 10) for example, and use that as the representative network. This choice is one that has consequences for the inferences that can be made from subsequent analysis of network.

This type of problem may not be an issue in networks that arise in a manner that could be explained as a traditional duration/hazard model (Box-Steffensmeier and Jones 2004). In such a model a node can be considered as a "failure" at that time, *t*, when it creates a tie through some sort of exchange with any other node within the network. This structure could easily describe the IGO network of states that share memberships in organizations. Once states join these organizations it is rare that they will leave them, and thus change the structure of the network. Thus, by choosing the latest year in which data on IGO membership is available (Dorussen and Ward 2008), a researcher can reasonably assume that the network is complete.

The network literature has examined the issue of boundary specification in terms of determining what the network will consist of. I have followed a “realist” strategy (Knoke and Yang 2007, 15) in defining the network as all states in the international system. This strategy is realist in the sense that it relies on the logic that states view themselves as belonging to one social group, and that their interactions are predicated on that assumed membership. I include all states as potential nodes in the network. Once I

made the decision to examine the arms network in terms of state-to-state transactions, the next question became choosing the temporal window within which to study the network.

The problem of defining the arms network is to choose the level of temporal aggregation that is appropriate. For my analysis I made the decision to aggregate all arms sales between all states into decades. I chose to aggregate these sales over the course of a decade because that picks up both the regular and infrequent transactions between states. It may be argued that the *real* network of relations consists of those states that have regular transactions between one another. A snapshot approach does not pick this condition up very well. Arms transfers and deliveries tend to by cyclical – large orders in one year, and smaller orders or none at all the next are normal. This same pattern holds for many acquisition dynamics from domestic suppliers as well.

A choice to take the network on a year by year basis, then, runs the risk of missing important relationships. It is not inconceivable that even strong relationships between states may "skip" years. This may not be true of primary customers, especially if they import numerous weapons systems that may be imported in offsetting years. This type of missed coverage is more likely to occur for the median customer. Such customers may make purchases from a supplier every 2 to 3 years.

The other side of this snapshot approach to specifying the network is that it runs the risk of picking up less important relations and giving imbuing them with more importance than they warrant. It is not difficult to imagine a state that purchases arms every 10 years, or even once every 20 years taking advantage of a purchase opportunity being picked up in a snapshot year. Such an addition is not as serious as other problem of missing network ties, but it does skew the relationships that the network is meant to represent. My research questions relate to the long-term (or even medium-term) relationships that states develop through the exchange of arms. Thus the question of missed links and missed relationships is more damaging to the analysis than is the question of picking up unimportant/rare relationships.

Figure 4.1 shows the years in which certain states import arms from the United States from 1950 to 2010. The three states – Iran, Austria, and Egypt – illustrate different aspects of the argument that I have been making regarding the temporal aggregation for this network analysis. If the network is aggregated from 1950 to 2010 there are important features of the relationship between the U.S. and Iran and the U.S. and Egypt which are masked. A full temporal aggregation would show a relationship where none now exists between the U.S. and Iran. It would implicitly assume that the relationship between the U.S. is the same in 2010 as it was in 1970. Both of these propositions are obviously wrong.

The plot of Austria's arms transactions illustrates the other problem. Austria is not a huge customer of U.S. arms, but it has maintained a fairly steady arms transfer relationship with the U.S. by making arms purchases in at least one or two years of each decade. Overall these transfers take place in fewer than half the years. A stochastic selection approach would mean that this relationship was missed over half of the time.

These plots also illustrate why it is important to examine how these individual relationships, and thus the network that the sum of these relations constructs, change over time. In that sense I do want to take a snapshot of the network at different points in time. My solution to these two dilemmas is to aggregate the relationships over the course of each decade into one network. Such an aggregation will pick up all transfers between states. While this does not eliminate the issue of "one off" transactions it does put them into the context of a much fuller network without giving them permanence across the entire temporal spectrum. By aggregating into decades, but cutting off each network at the ten-year mark, however, I do account for the possibility that relationships in the arms network, unlike relationships in IGOs, do end.

This is important theoretically. Network structure can influence and reinforce patterns of trade and interaction, but that structure does not itself become determinative for the agents within it (Wendt 1987). It is this mutual interaction between agent and

structure that underlies this analysis. This particular analysis does not model these changes explicitly over time, but I do look at models of network formation for each of the six decade-long networks that I define. In order to perform the basic network analysis and to run the ERGM model I have six separate sociomatrices – one for each decade.

Data Structure and Representing the Network

Network relationships can be modeled in a number of ways. The most intuitive representation of networks is the sociomatrix (Wasserman and Faust 1994, 77–84). This matrix is an (N x N) matrix in which the rows i and columns j are identical. The i rows represent the sender and the j columns represent the receiver. In a standard sociomatrix a relationship between i and j is denoted as a 1. Non-relationships are noted by 0. Weighted matrices (in which the degree to which A and B) interact are also possible, and in the sociomatrix the weight of the ties can be represented with different numbers.

Theoretically the weights of arms transfer relationship between two states could be measured in a number of ways. Relationships may be ranked by total value of arms or by the frequency (in year) of arms transfers. It may also be useful to think of average value of transfers per year as a weighting criterion. In general the strength of relationships between states on this arms dimension (and on others) is important for the ways that states act. In this analysis, however, I do not weight the relationship. The primary reason for this is that I am most concerned with the presence of a network affect. The first step is to examine the affects of the network in its most basic form. Exploring the affects of different weights on the network structure and its subsequent affects on state behavior is a logical next step for this research[18].

[18] This is also a reflection of the technical hurdles involved in modeling weights at this point of this research. I acknowledge that using weights to explore these issues is important.

One feature of the arms transfer network that is important to model, however, is the directed nature of the transactions. That is to say that the fact that states do not reciprocate relationships is an inherent feature of the arms network. Some states do not export arms at all. They are part of the network, but their position, relationship to other states, and behavior is likely different than states that export and import. This assumption is based n the literature on state capabilities to produce arms (Brauer and Dunne 2004; Grimmett 1996). Directed networks allow us to account for potentially unequal relationships between unequally endowed states. Some states export arms but do not import them. The sociomatrix captures this directed nature of transactions. In a directed network the pair (*i,j*) may exist (be a 1), but that does not imply that the pair (*j, i*) also exists.

The total network is composed of all states belonging to the international system during the course of the decade. The default value of each ordered pair of state is set at zero. In this study arms transfers during each 10 year snapshot (1950-59, 1960-69, … , 2000-09) are aggregated. If an arms transfer takes place during the timeframe a "1" is placed in the table in the appropriate position. Table 4.1 shows a truncated portion of the sociomatrix for the 1950-59 network. It only has the state pairs for the last 11 (of 180) states in the network. This snippet of the network shows both how the relationships are represented in matrix form, but also how directed networks work.

Take the relationship between Great Britain (GBR) and Zimbabwe (ZWE). The GBR row shows the sales of arms that are made by GBR. In more general terms each row represents the sender, while the column represents the receiver. The value of the *i, j* pair (GBR, ZWE) represented by the cell on the first row last column is equal to 1, meaning that during this decade Great Britain sold arms to Zimbabwe. Conversely the *i, j* pair (ZWE, GBR) represented by cell in the last row and first column of the truncated sociomatrix has a value of 0. In a non-directed network this value would also have to be 1 to show that the relationship exists for both actors in the pair.

I constructed the networks for each decade using data from the Stockholm International Peace Research Institute (SIPRI) arms transfer database (2011e). In order to get data on both importing and exporting states I had to download each country's arms imports in a separate file. These files were then aggregated into a STATA data file using a program that I wrote to clean the data and make it compatible with other data sources used in international relations research. The aggregate file contains variables identifying the year, importing state, exporting state, and the value of arms traded between those two states in a given year.

To construct the sociomatrices used in the ERGM, I wrote a program in STATA. This program had two pieces. The first piece used a dataset of all countries in the world in each year generated using EUGene (Bennett and Stam 2000). The program used the countries to generate a matrix (NxN) of all the countries in the world in a given period of time (in this analysis, decades). Once the matrix was constructed, the program reads in the data from the data file described in the paragraph above. The program then goes through each period (as identified) and conducts a series of logical tests to determine whether two states traded arms in a given year. The results of these tests are filled in to the matrix created. The resulting matrix is a sociomatrix in which 0 represents no ties between the given pair (*i,j*) of states and where a 1 indicates a tie. Figure 1 represents the output of this matrix. The matrix is written to a text file that can be read into R to perform statistical analysis.

Adding Nodal Attributes to the Network

The sociomatrix is the only piece of information necessary to analyze the arms network. Measures of networks such as centrality, degree, cliques, etc. can be calculated using the information contained in the matrix. The ERGM model, however, also allows for nodal (edge, actor) characteristics to be modeled as covariates. In chapter 3 the focus

was on the capabilities of states as well as the particular arms trade patterns of Russia (and to a lesser extent, the United States.)

Understanding how different power relations affect the overall network of arms transfers is a great starting point. In addition to power, one of the most robust findings of international relations scholars has been the empirical finding that democracies are pacific among themselves (Boehmer 2008; Bueno De Mesquita et al. 1999; Harrison 2010; Oneal and Russet 1997; Oneal and Russett 1999; Rousseau et al. 1996; Ward, Siverson, and Cao 2007). In examining how weapons proliferate throughout the entire international system I expect that regime type will be a powerful factor as well. In more general research Werner (2000) found that regime type similarity has a pacific affect.

I test three node-level characteristics in each of the six ERGM models that I ran. I run a model for each of the following decades: 1950s, 1960s, 1970s, 1980s, 1990s, and 2000s. The characteristics that I use to help the model predict the network are regime type, military expenditures, and major military alliances. In the following paragraphs I describe the source and characteristics of each of these variables. The data for this portion of the analysis were compiled primarily using EUGene (Bennett and Stam 2000) and data sources from the Correlates of War project (2005; Singer 1988). Where these data were augmented or other data were used I note it in the paragraphs below.

In the ERGM analysis used here I use the regime type based on the Polity IV (Marshall and Jaggers 2002) data. I categorized each state in each year as being an autocracy (polity2 score < -6), an anocracy (polity2 score >-6 and <6), or a democracy (polity2 score >6). The regimes were coded as autocracy = 1, anocracy = 2, and democracy = 3. Because I made the decision to aggregate the network at the decade level, it is important to match that same timeframe for the state-level characteristics. In order to capture the regime type for the decade I collapsed each regime value at its

maximum level. This means that the empirical results are potentially biased toward finding democratic effects[19].

The second state-level characteristics that I included in the ERGM model for each decade was military spending in each state. This variable runs the risk of being a little endogenous since spending on weapons is part of military spending, and the network was constructed using arms sales/purchases as the basis of ties. However, overall state spending does not automatically mean that a state will spend those funds on weapons manufactured in other states. Military spending is also a component of the measures of state power. Using this measure, then, can help us understand what role state power dynamics (as measured by hard power indicators such as military spending) play in the formation of the world arms transfer network. This variable is measured in millions of dollars and is taken from the COW data using EUGene. After testing over 14 specifications for the ERGM model, I found that including this variable in the models caused the overall model to not converge over half of the time. As I noted above, the sensitivity of the ERGM model is a useful tool in inductive exercises, since variables that do not help explain the formation of the network cause the model to diverge rather than "soaking up" variance (Achen 2005).

The third state level characteristic modeled is whether or not a state belonged to one of the two large military alliances from the Cold War. This is a dichotomous variable that simply indicates membership in a given year. There is a variable for NATO members and for members of the Warsaw Pact. These variables are 1 if a state was a member of the given alliance in that year, and 0 otherwise. For each decade this variable is set to its maximum. This means that a state is counted as having belonged to an alliance if it was a member of that alliance at any point during the decade.

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[19] I also ran models that used the full polity measure (scores ranging from -10 to 10) but those models did not converge in any of the decades. The regime measure captures similar information and allows the models to converge.

This variable is a little problematic in that the Warsaw pact ceased to exist at the collapse of the Soviet Union. In order to deal with this shift in the decade of the 1990s I also added a variable for Commonwealth of Independent States (CIS) which captures whether a state joined the Post-Soviet configuration of states. In the 1990s model I keep the Warsaw Pact variable and add the CIS variable, and in the 200s I keep only the CIS variable. I felt it was important to keep this variable for states that chose to remain close to Russia since they would be more likely to keep military ties, which would also involve adopting similar tactics, equipment, and philosophies for their own militaries. A number of former Warsaw Pact states (such as Poland, most notably) became members of NATO, so their switch is captured in the NATO variable in those models.

Network Measures used in Models

The ERGM model also allows us to explore whether various intrinsic network characteristics influence the formation of the network. These characteristics are added to the model in order to explore theoretical propositions. The characteristics that I was primarily interested were those that relate to the relationships of the actors within the network, specifically those relationships that are not easily captured using traditional statistical methodology. The three network characteristics that I examine are edges, balance, and a census of the five types of triadic relations that involve interaction between all three actors in some way. I describe each of these network properties in more detail in the paragraphs below.

The first characteristic examined is that of edges. This adds a network statistic to the analysis that is equal to the number of edges (or ties) within the network. This tests the proposition that the number of ties is a significant factor in the formation of the given network.

The second network characteristic that I examine is that of balance within the network. This term adds one network statistic to the model equal to the number of triads in the network that are balanced. The balanced triads are those of type 102 or 300 in the categorization of triads identified by Davis and Leinhardt (1972). Type 102 triads include three actors, two of which have mutual relations with each other, but neither of which has relations with the third actor. This is balanced in the sense that if neither of the two actors has relations with the third, there is no pressure for them to form a relationship with the third actor. In the 300 type of triad the three actors all have mutual relationships with one another.

The third set of network characteristics builds off of the idea of balance. In it each of the triads in which all three members of the triad have a relationship, and at least two of the dyads have a mutual relationship with one another. These are triads classified as the 120D, 120U, 120C, 210, and 300 types. Of these types only the 300 type is "balanced." This test of the network allows me to examine the extent that relations beyond the dyad have an effect on the formation of the overall arms network. Figure 4.1 shows the different triad types used in the ERGM analysis. They are based on the classification in Wasserman and Faust (1994, 566).

The theoretical issue with balance in arms transfers is that arms transfers are often thought of in asymmetrical terms. This assumption is clear when ideas of arms and development are discussed (Brauer and Dunne 2004; Gerner 1983; Porter 1984; SIPRI 1975). However, trade between developed nations has been singled out by Stavrianakis (2010, 93) as one of the "…key components of contemporary globalization." Much of this trade is still one-directional (which over the time-frame of an entire decade is not insignificant), even if the volume of trade and total number of countries involved is large. By examining the balance in the relationship it may be possible to determine whether and how the relationship among more than one state affects the overall formation of the network.

Results

This model was estimated using the STATNET package in R (Handcock et al. 2008). The output of the ERGM models is similar to that of other statistical models. It is essentially a logistic regression, with the dependent variable being the network that is given all the networks that could be given the number of nodes present in the network. The covariates in this case are the two state-level variables and three network-level variables discussed in the previous section. Table 4.2 shows the results of the ERGM model on each of the six decades-long networks under consideration.

For inferential purposes we can think of this output as being similar to the covariates in a standard logistic regression. The direction and the statistical significance of the covariates can be used to make inferences about their effects on the formation of the dependent network (Cranmer and Desmarais 2011). ERGM models can also be used to test actor level theories (Desmarais and Cranmer 2011), but in this chapter I am primarily interested in understanding factors that went into the overall formation of the network, or system as a whole.

The primary result is that neither of the state level variables – neither regime type nor military alliance – was statistically significant in any of the six models. The result for the network-level statistics varied across decades, with the 120D and 120U type of triads being significant in the majority of the models.

The other issue is that the model fit as measured by the AIC and BIC generally improved over each decade of the model[20], until the final decade of the model when it dipped back to the level of the 1980 model.

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[20] This is seen in the increasing values of both the AIC and BIC values. In general smaller values indicate a better model fit, especially when comparing across nested models (Long 1997, 109–112). The BIC values are much smaller in these models than those found by Cranmer and Desmarais (2011, 79) in their ERGM example of the 108th Congress legislation sponsorship model. The AIC and BIC are influenced by the number of factors in the model. In my models each state (approximately 180) and their interactions are fewer than the 435 members of Congress in their study. The AIC and BIC can be used to compare models

The edge variable was statistically significant in half of the models, and in all of the models in which it was significant, it was significant at the .001 level. In all cases in which the variable was significant, it was also negative, meaning that the number of edges negatively predicted the formation of the network.

The statistic for balanced triads is only significant in the final model which examines arms sales in the 2000s. The coefficient is very small, especially compared to the other statistically significant variables in the analysis. This is an indication that balance is not much of a factor in the formation of the arms transfer network.

The 120D triad was statistically significant in four out of the six network decades. This triad had a positive coefficient in each of the years in which it was statistically significant. The configuration of this particular triad is interesting in that it indicates that two states who are recipients of arms are likely to trade arms between each other. This type of relationship is reflective of states such as Britain and France who are both customers of U.S. arms, but who in turn may trade with each other. The states that are part of 120D triads are arms exporters themselves. This is likely a reflection of the U.S. and Russian security umbrella hierarchy as it operated in the transfer of arms in the Cold War era, and for the continued U.S. security hierarchy as it continued after the collapse of the Soviet Union (Lake 2009).

The 120U triad type was the most consistently statistically significant variable, achieving significance in five out of the six models, and having a relatively large (second only to edge) coefficient. The sign of the coefficients on the 120U triad measure was positive across all of the models. The 120U triad is the inverse of the 120D. In it the two actors that have a mutual relationship both then have directed relations toward the other member of the triad. This is another indication of the hierarchy that exists in the world

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with similar specifications, but are not necessarily well-equipped to evaluate the relationship between the model and the "real world" that we are trying to explain.

arms trade. States in the middle range cannot produce all the weapons required by their own militaries, so they trade with each other. These states that trade with each other also trade with states who have nothing to offer in return to the exporting states.

The other network measures (the 120C, 210, and 300 triad types) were not significant in more than two years of the network. The 300 triad was strongly significant in the 1960s and 1980s model with very large negative coefficients. This means that in those years, triadic groupings of states in which each of the three states were both producer and supplier to the other two members of the triad negatively predict the formation of the network. Such groupings of states are unlikely in a tiered system, which is picked up by the significance of the two triadic types (120U and 120D) that reflect this most naturally.

Discussion

The results of the ERGM are very interesting in that they seem to indicate that neither regime type nor military alliance are a good predictor for the overall pattern of relations between states. These are ideological factors and are normally considered to be quite important in the way that states order their relations. In fact, the democratic peace literature is some of the most well-known literature in international relations.

Alliance formation has also been the subject of study by international relations scholars of all persuasions. Müller (2002, 371) goes so far as to say that alliances are the one type of security cooperation that plays a role in realist of the world. They are a "…necessary tool of balancing when states' own resources are insufficient to create an appropriate counterweight" to other powerful states. Snyder (Snyder 2007) introduces a number of theories about intra alliance politics, and makes a constructivist turn when he introduces norms as a factor in alliance formation and longevity. The implications of this chapter are that alliances are not an important factor in states' decisions to arm one

another. This particular finding has some interesting implications for research in security.

The first lesson is that the arms trade is not about strengthening military alliances. A second lesson is that the secondary relationships of states – i.e. the friends of my friends or enemies of my enemies, may be as important for understanding the arms trade as any of the traditional liberal (regime type) or realist (alliance, military spending) factors that have been associated with understanding international behavior in the past.

The use of the ERGM model, then, has allowed me to test interactions of state and system characteristics that have not been easily combined into a single analysis in past work, or which has done so without really accounting for the complex dependencies of the system. The result of this combination is not just a proof of concept for a fairly new analytical model. The results of the model has shown empirically that defense spending in individual states has not been a primary driver of the world arms network in any decade of the post World War II era.

Two factors have remained consistent in explaining the structure of the world arms network that the number of relationships is important for the eventual structure of the network, but negatively so; and that the relationship between mutual arms trade partners and their suppliers and customers is an important factor in ordering the arms market. This may reinforce arguments by development economists who have noted the relationship between arms production capabilities and other development indicator (Brauer and Dunne 2004) and those that have noted the relationship between democracy and development (Burkhart and Lewis-Beck 1994; Przeworski et al. 2000; Rueschemeyer, Stephens, and Stephens 1992).

The most surprising result of the ERGM models presented here is the consistent lack of a relationship between military alliances and the emergence of the arms trade network. This relationship is not statistically significant in any of the network models. Also surprising is a lack of evidence for a democratic or autocratic arms trade.

The arms networks we get in each decade appear to depend greatly on the relationships of states – and not as much on material factors. Foreign policy analysis explanations can look at both classes of explanations in trying to determine why it is that states make the choices that they do. I spend the next three chapters of this dissertation examining the institutional actors and processes that help to shape these decisions in the two primary arms exporters in the international system.

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Figure 4.1 - Examples of Arms Export Patterns

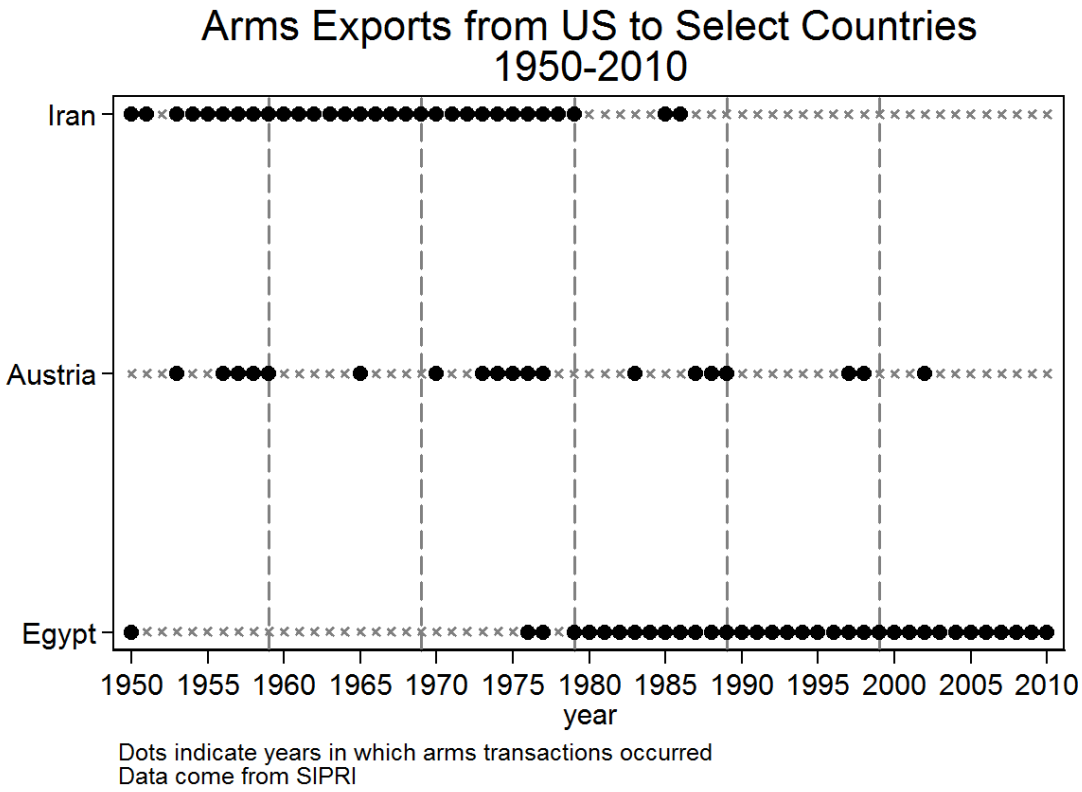

Table 4.1- Example of a Sociomatrix (Truncated 1950 Matrix)

	GBR	URY	USA	UZB	VUT	VEN	VNM	YEM	YUG	ZMB	ZWE
GBR	0	1	1	0	0	1	1	1	0	1	1
URY	0	0	0	0	0	0	0	0	0	0	0
USA	1	0	0	0	0	1	0	1	0	0	0
UZB	0	0	0	0	0	0	0	0	0	0	0
VUT	0	0	0	0	0	0	0	0	0	0	0
VEN	0	0	0	0	0	0	0	0	0	0	0
VNM	0	0	0	0	0	0	0	0	0	0	0
YEM	0	0	0	0	0	0	0	0	0	0	0
YUG	0	0	0	0	0	0	0	0	0	0	0
ZMB	0	0	0	0	0	0	0	0	0	0	0
ZWE	0	0	0	0	0	0	0	0	0	0	0

Figure 4.2 - Triad types used in ERGM Analysis

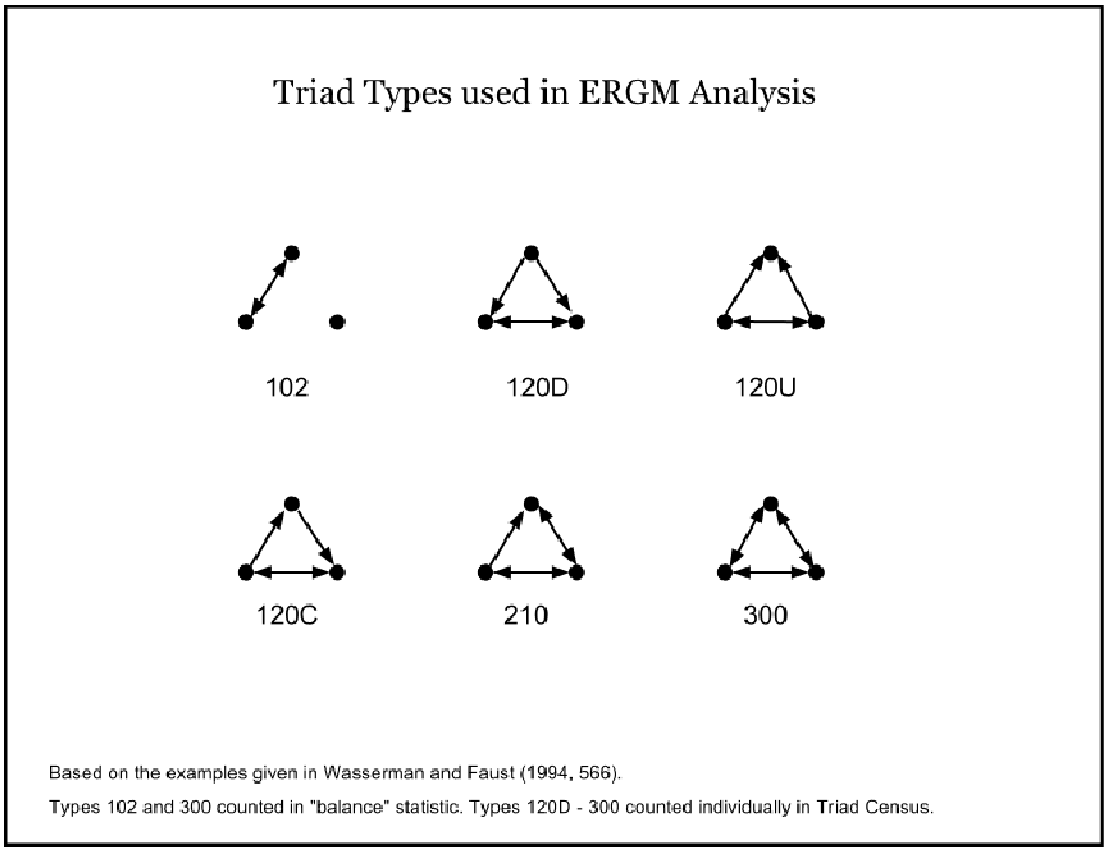

Table 4.2 - ERGM Results for Each Decade 1950-2010

	1950s		1960s		1970s		1980s		1990s		2000s	
	b		*b*		*b*		*b*		*b*		*b*	
	(SE)	*P>|z|*	*(SE)*	*P>|z|*	*(SE)*	*P>|z|*	*(SE)*	*P>|z|*	*(SE)*	*P>|z|*	*(SE)*	*P>|z|*
Network Variables												
Edges	-5.167	0.0001***	-4.62	0.883	-4.467	0.0001***	-4.627	0.936	-4.85	0.067	-4.4	0.0001***
	(.014)		(31.36)		(.699)		(57.841)		(2.64)		(1.204)	
Balance	0.008	-	0.006	0.999	0.0007	0.782	-0.004	0.995	-0.00002	0.993	0.007	0.0001***
	-		(4.018)		(.002)		(.674)		(.002)		(.001)	
Triad 120D	2.695	0.00028***	1.74	0.39	0.432	0.522	1.028	0.0033**	0.994	0.007**	1.037	0.0001***
	(.742)		(2.026)		(.675)		(.350)		(.367)		(.276)	
Triad 120U	4.635	0.0003***	3.257	0.358	2.513	0.0001***	2.057	0.0001***	1.88	0.0001***	1.22	0.0001***
	(1.28)		(3.542)		(.203)		(.106)		(.391)		(.307)	
Triad 120C	-1.475	0.0006***	0.903	0.68	-0.313	0.726	-0.294	0.0001***	1.31	0.711	-0.556	0.275
	(.429)		(2.189)		(.894)		(.048)		(.354)		(.510)	
Triad 210	1.939	0.0002***	0.331	0.703	1.198	0.273	0.79	0.0001***	0.946	0.166	0.973	0.103
	(.521)		(.868)		(1.092)		(.137)		(.683)		(.596)	
Triad 300	38.287	-	-8.048	.045*	-6.19	-	-7.106	0.0001***	-1.57	0.996	0.978	0.846
	-		(4.018)		-		(1.714)		(.03)		(5.05)	
State Variables												
Regime	-0.036	0.978	-0.139	0.951	0.022	0.801	-0.187	0.984	-0.061	0.631	-0.064	0.755
	(1.416)		(2.266)		(.088)		(9.262)		(.128)		(.204)	
NATO	0.209	0.869	0.219	0.955	0.212	0.663	0.3367	0.993	0.164	0.734	0.315	0.315
	(1.260)		(3.843)		(.486)		(44.176)		(.483)		(.371)	
Warsaw Pact	0.225	0.851	0.154	0.964	0.56	0.055	0.913	0.976	0.661	0.63	-	-
	(1.193)		(3.460)		(.292)		(29.725)		(1.37)		-	
CIS Member State									0.521	0.533	0.559	0.559
									(.836)		(.801)	
Model Fit	AIC	BIC	AIC	BIC	AIC	BIC	AIC	BIC	AIC	BIC	AIC	BIC
	2850.8	2934.6	5543.8	5627.6	7107.6	7191.4	8614.6	8698.4	12638	12730	8574.6	8658.4

CHAPTER 5 - INSIDE THE STATE: THE ROLE OF ARMS EXPORT AGENCIES

The previous chapters have highlighted some of the similarities in the capabilities between the United States and Russia and the overall pattern of arms sales that results from decisions made within states. The U.S. and Russia are no longer equals across most dimensions of state power, but they are nearer to parity in their continued dominance of the world arms market. The patterns of overall trade in arms between states revealed that the factors of military spending, regime type, and military alliances have uneven and often negative effects on the sale of weapons. This chapter introduces the case studies which make up the final two substantive chapters of this project. Those chapters focus on case studies of decision-making and justification for arms sales in both the United States (Chapter 6) and Russia (Chapter 7).

This chapter proceeds in the following manner. I first briefly introduce the decision-making agencies within each of these states. I outline briefly the history, stated purpose, organization, and function of the Defense Security Cooperation Agency (DSCA) along with the Directorate of Defense Trade Controls (DDTC) for the United States and Rosoboroneksport[21] (ROE) for Russia. Second, I contrast the priorities of these states' agencies based on these factors and introduce a typology of the expected export incentives for each of these agencies. Third, I outline the dimensions of the case studies that explore whether and how agencies actually engage in decision making. After identifying the questions, framework, and limitations of the cases, I outline the case selection method, and cases selected for the following chapters.

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[21] Russian Defense Export (Рособоронэкспорт)

The U.S. Arms Control Bureaucracy

In the U.S., the export of weapons is regulated by both the State Department and the Defense Department. This regulation activity takes place in the Directorate of Defense and Trade Controls (hereafter DDTC) for the sale of military technology or potential dual-use[22] technology. The primary way that the directorate works is through the granting of licenses to firms that want to sell military hardware or dual-use items to foreign clients. These licenses are checked against certain criteria that are established by law, and if there are no problems, the license is granted. The DDTC was established by the Arms Export Control Act of 1976. The DDTC provides a rationale for how the control of arms exports is an important part of the foreign policy of the United States:

> "The U.S. Government views the sale, export, and re-transfer of defense articles and defense services as an integral part of safeguarding U.S. national security and furthering U.S. foreign policy objectives. Authorizations to transfer defense articles and provide defense services, if applied judiciously, can help meet the legitimate needs of friendly countries, deter aggression, foster regional stability, and promote the peaceful resolution of disputes. The U.S., however, is cognizant of the potentially adverse consequences of indiscriminate arms transfers and, therefore, strictly regulates exports and re-exports of defense items and technologies to protect its national interests and those interests in peace and security of the broader international community" ("Getting Started with Defense Trade" 2012)

The overall mission of the DDTC is to regulate the trade of arms in a way that limits the transfer technology and weapons to states that the U.S. does not consider to be "friendly." The DDTC maintains a list of states with which trade in these items is banned completely or severely restricted ("Country Policies and Embargoes" 2012). A separate category of states that are considered to be close friends to the United States also exists.

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[22] Duel use items are those that can be used for military purposes. A famous example was the ban of export of Sony Playstation game consoles to Iraq for fear the computer chips would be used to build guidance systems for missiles.

Countries that have this status have special programs in place to help expedite the process for arms and technology export from the United States. The DDTC works through licensing, but also through enforcement. It has an investigative arm that examines potential violations of exports for dual use items or weapons systems[23].

The DDTC works together with the DSCA, which is the primary source of the large weapons systems that are the focus of this study. The DSCA uses the contracting and acquisition channels of the military and makes and approves deals involving the sale of weapons systems to other states. These weapons systems include new items as well as surplus items. The DSCA has a standard operating procedure (Allison 1969) for determining the eligibility of a state to receive assistance under the Foreign Military Sales (FMS) rubric. Four main criteria are used in the initial decision (DSCA 2013a, fig. C4.T1).

I summarize these criteria in the numbered list below.

1. A finding from the president that furnishing defense articles or service will strengthen the United States and promote world peace.
2. The receiving country or international organization agrees not to transfer the article to anyone outside the receiving organization and that it will be used for the stated purpose unless additional consent from the State Department has been obtained.
3. The receiving country or organization agrees to safeguard the equipment in the same manner that it would be safeguarded in the United States.
4. The receiving country or organization is otherwise eligible to purchase or lease defense services.

States can lose eligibility (see 4 above) for a number of reasons. The "Foreign Military Sales Program General Information" (DSCA 2013a, fig. C4.T3) lists the

[23] A list of the most recent cases can be found on the DDTC website ("Compliance" 2012).

activities and the relevant section of the U.S. code, and the details about how an activity may render a state ineligible to participate in the FMS program. Some of the relevant infractions here are support to terrorists, seizure of U.S. property or discriminatory taxes, illicit drug production or transit without adequate response, severance of diplomatic relations, human trafficking, gross violation of human rights, and military coups or decrees that depose the government.

The procedures outlined for administering the FMS program fit well with the concept of the national interest (Krasner 1978, 45) defined as "…a set of transitively ordered state preferences concerned to promote the general well-being of the society that persists over a long period of time." The ordering suggested by the FMS program procedures is as follows:

Strengthen the United States > Promote World Peace > Improve Receiving State Conditions

How each of these three overarching state preferences is evaluated is open to interpretation and disagreement. This is where other models of decision-making (other than SOPs) may become more important. This ordering supports findings on the sale of arms to states by Blanton (2005) who found that in the post-Cold War period democracy and human rights were statistically significant factors in the selection of states that were eligible to receive U.S. arms.

The focus of this study is on large-scale weapons systems – that is weapons that are not classified as small arms. The FMS program is the main channel for U.S. exports (Grimmett 2011), and these are the types of arms that states can use to threaten one another. They are the types of arms that are catalogued for international agreements and tracked by SIPRI. The DSCA works together with the DDTC to ship goods sold under the FMS agreement when this is necessary to ensure compliance with international arms control agreements (DSCA 2013b).

Other commercial military sales (for parts, ammunition, smaller weapons) are administered by the DDTC (Grimmett 2011). The reporting (international and internal to Congress) for the licensing is much less stringent. However, findings against a defense firm can affect contracts to supply the U.S. military. Defense firms have an incentive to try to sell their weapons to as many customers as possible, but the ability to regulate and punish those firms that may try to go around the export controls on weapons systems means that there is a real level of *potential* control over the sale of even smaller arms by the state. Firms that wish to maintain contract eligibility with the military risk losing their primary source of income if they flaunt the rules. On the other hand, the list of countries that have embargo policies on them ("Country Policies and Embargoes" 2012) is quite limited. From a practical standpoint, this means that for most firms, and in most cases the default position for arms sales is still going to be "yes."

Both the DSCA and DDTC are part of the executive branch, and the regulations that it enforces are those that are found in U.S. law passed by Congress as well as by Executive Order. The procedures for foreign arms sales require that Congress be notified of arms sales over $7 million dollars within thirty days of signing an agreement (DSCA 2012). These reporting requirements ensure that Congress is involved in this aspect of foreign policy and opens up the process to more actors.

While we typically think of foreign policy being set by the President, members of Congress have a great many tools to help them influence U.S. foreign policy. Carter and Scott identify a range of Congressional foreign policy behavior (2009, 18–19). These are activism, assertiveness, and entrepreneurship. Foreign policy activism "includes any effort by Congress and its members to affect policy, whether in support or opposition to the administration's position." Assertiveness by Congress in foreign policy comes when members of Congress "…challenge the policy leadership of the administration." Foreign policy entrepreneurship (see also Carter, Scott, and Rowling 2004) "… is a subset of assertiveness" that is carried out by an individual member of Congress. Foreign policy

entrepreneurship is assertive and proactive[24]. Recent examples of Congressional foreign policy actions are the banning of conflict diamonds, the creation of a Russian-American exchange program, and pressuring the Bush administration for more reconstruction in Afghanistan and Iraq (Carter and Scott 2009, 5–6).

In the U.S. context the sale of arms - especially large sales - are an area in which the Congress and the President can face off. Probably the most well-known example of this is the Reagan administration's sale of AWACS aircraft to Saudi Arabia in 1981. By law, the President is required to submit large arms sales to Congress for approval or veto. In controversial cases, this approval is not always given. In the case of the AWACS, President Reagan eventually won the right to sell these planes to Saudi Arabia, but only after a long battle with the Senate, in which he had to negotiate with key senators about the specific conditions of the trade (Fenno 1986). Arms sales fall into the same category as other foreign policy decisions in the U.S. context. Portions of foreign policy are bureaucratic in nature - the rules for obtaining an export license from the DDTC, for example - but these bureaucratic procedures can be politicized and contested by various actors.

This review of the U.S. arms control bureaucracy offers some insights into the potential sources of foreign policy decision-making in the sale of conventional weapons systems[25]. The first is that the sale of these weapons in the United States is administered in the Department of Defense. The second is that this process is governed by a set of standard operating procedures which indicate preference ordering. This preference ordering gives the president a great deal of leeway in determining what constitutes

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[24] Congressman Charlie Wilson is a good example of the ways in which a Congressman can set the entire foreign policy agenda for the country. Wilson was instrumental in providing the CIA with funds to purchase weapons (and ultimately Stinger Missiles) that were used by the Mujahadeen in Afghanistan against the Soviets. This despite the fact that neither the President nor the CIA requested Congressional funds for these operations. Read the book, *Charlie Wilson's War* (Crile 2004), or watch the movie of the same name for more information.

25 The types of weapons system that are the subject of this study.

strengthening the U.S. or ensuring world peace. However, significant sales (over $7 million dollars) require that Congress be notified.

Rosoboroneksport

Russia's defense industrial sector follows the pattern of other spheres of politics. This model of bureaucratic politics involves "…rivalries between competing factions and lobbies within increasingly state-directed or coordinated bureaucracies for favor, resources, and political turf bestowed from above" (Blank 2007, 3–4). Russia's defense industry has remained "…a backward, crisis-ridden, unproductive sector" in the economy despite continuous reorganizations since the collapse of the Soviet Union (Blank 2007, 19). Rosoboroneksport (ROE) was organized by Vladimir Putin as part of his reorganization of Russia's industry and is patterned after the model of the energy sector (Blank 2007, 10). That is that the sectors of the economy that are important to the state are controlled by "…bureaucrats who control the board of directors….[and organize] giant vertically integrated firms for each branch of industry" (Blank 2007, 10). Putin compared the global weapons market to that of the global economy for energy and food (as reported in Blank 2007, 10–11).

Rosoboroneksport is the successor agency to an agency which was established in the Soviet Union in 1953. That agency, the "General Engineering Department" was created on May 8, 1953 within the Ministry of Domestic and Foreign Trade ("Rosoboroneksport Corporate Strategy" 2012). In the 1990s Russia had two agencies that were responsible for arms exports: Rosvoorouzhenie State Corporation and Promexport. Rosoboroneksport was established to be a single point for arms exports. It was established as a "Federal State Unitary Enterprise" in November 2000. In 2011, the firm began operating as a joint stock company ("Rosoboroneksport Corporate Strategy"

2012) moving the firm more in line with the other similar behemoths in strategic sectors, i.e. firms such as Rosneft and Gazprom.

Rosoboroneksport lists its priorities on its website. The primary purposes of this state owned and operated firm are as follows:

- "Rosoboronexport pursues a marketing strategy targeted to expand the geography, range and volume of export deliveries.
- A number of special programs and projects for exporting products to specific countries have been developed based on a comprehensive analysis of the arms markets and foreign partners' needs.
- Rosoboronexport seeks to operate flexibly and efficiently in the market, using modern and advanced marketing and customers' settlement methods.
- Foreign customers are offered package solutions for national systems intended to defend land, air and seaside borders, which feature the optimal trade-off between cost and performance. These solutions may include both the supply of military products and services and organization of licensed production in customer countries, the setting-up of joint ventures to manufacture and maintain equipment, as well as joint R&D efforts. Rosoboronexport widely uses the optimal offset programs.
- With regard to foreign customers' interests and the opportunities of the Russian defense industrial complex to increase its exports, Rosoboronexport pays much attention both to major billion-dollar contracts and small deals worth the hundreds of thousands to several millions of dollars." ("Rosoboroneksport Corporate Strategy" 2012)[26]

Rosoboroneksport is a large-scale state enterprise, and is such is a part of the murky governance structure associated with other large industries in Russia. This

26 This information changed after I first accessed it on 11/15/2012. The website was updated at that time. The new version expresses similar sentiments, but different wording.

network state structure (Kononenko and Moshes 2011) consists of overlapping groups or clans that vie for control of the Russian state structure. Under Vladimir Putin, state companies have played a more prominent role in the economy (Olga Kryshtanovskaya and White 2011, 28–9). Defense firms are controlled by larger firms such as ROE, Gazprom, and Rosneft and these larger firms are in turn controlled by high-ranking members of the state - and especially by those personally close to President Putin. In such firms the "…top managers are kept away from the most important decisions ….and have a purely administrative function to perform" (Olga Kryshtanovskaya and White 2011, 32–3). This arrangement differs from the corporate boards of western firms such as Boeing in that the motive for operating the firm is not necessarily to maximize profit in the traditional sense. This is particularly true of firms in the military-industrial complex.

Rosoboroneksport is headed by a close Putin associate and member of Russia's *siloviki*[27], Anatoly P. Isaykin ("Rosoboronexport Director General" 2012). Thus ROE conforms to the pattern of strategic firms being controlled by in a personalistic manner by those that are part of Putin's inner circle. Another interesting factor in Russia's arms sales is that high-level government officials are intimately engaged in the process of negotiating deals. As an illustrative anecdote, in December 2012, President Vladimir Putin traveled to India in order to sign arms deals with that state ("India, Russia Sign Defence Deals" 2012). In the case studies of Russian arms sales in Chapter 7 this same pattern of presidential involvement in arms deals is also seen.

This control and influence over the different firms that make up the military industrial complex does not imply that these firms act responsively to top-down direction. In 2007, for example, Rosoboroneksport tried and failed to make a grab to be the supplier of military hardware to the Russian armed forces (Hanson 2011, 124). Many Russian

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[27] Силовики – roughly translated as politicians from the security or military services, often the officers of the former KGB, GRU, FSB, SVR the Federal Narcotics Control Service and military or other security services who entered government service during the post-Soviet era.

observers have noted that the "power vertical" that has been established by Putin lacks the power to enforce decisions. Ledeneva (Ledeneva 2011, 46) characterizes the corporate networks in Putin's Russia as having "…an intrinsic capacity to propagate themselves." While the official position of Rosoboroneksport is that it "… operates under the strict supervision of the Russian President, the Russian Government and in full conformity with the UN arms control treaties and the relevant international agreements" ("Rosoboroneksport Corporate Strategy" 2012), the extent of this control is unclear.

In fact, in 2012 there was speculation that the Rosoborooroneksport's leaders, contra the official position of the Kremlin, provided plans and technical help to Iran to help that country build long-range missiles.

> "Thus, we don't know for sure whether Bastrykin and Rosoboronexport head Anatoly Isaikin are carrying out state policy as defined by Putin as an authoritarian leader or are acting out of purely selfish interests. And it also leads to the more basic question of where Putin's authority ends and where the new robber barons' authority begins." (Golts 2012)

The published priority of Rosoboroneksport is to expand the volume, scope, and geography of Russian arms sales ("Rosoboroneksport Corporate Strategy" 2012). It controls the export licenses for these weapons systems. Thus, the default position for Russian arms sales - according to domestic pressures and institutional design - is to sell weapons. While it is theoretically possible that the Russian state machinery can rein in the commercial mission of Rosoboroneksport in certain circumstances, there are several reasons why this is difficult.

The primary reason that vetoing any particular arms deal is difficult is that such pressure to limit arms sales is likely to come from external sources. One of the defining characteristics of the Russian network system is that the elites within Russia's system have built a relationship with the domestic population that is based on Russia's place in the world as a strong state. This strong state rhetoric within the state means that the state itself needs to be presented as an independent actor at home and abroad (Ortmann 2011). This phenomenon has been a part of the recent rhetoric from Russia regarding its arms

sales to Syria while that state has been engaged in a civil war. Putin noted in October 2012 that "Only sanctions imposed by the UN Security Council can serve as a basis for restricting weapons supplies to any particular country" ("Russia 'Will Not Be Dictated To' On Arms Sales" 2012). Such a position, given Russia's seat on the Security Council, ensures that only extraordinary amounts of external pressure will be enough to move Russia's position on arms sales to "no" after an arms relationship has been entered into with another state.

The profit motive, along with the need to provide capital to domestic arms firms is likely the most important factor in Russia's aggressive arms policy. Other commentators have noted that Russia has also demonstrated a pattern of going out of its way to arm states that are antagonistic toward the United States. Some of these states include Venezuela, Iran, and Syria (Blank 2007, 1). Whether these sales are driven primarily by profit or as a way to prove other political points is difficult to untangle. States that are openly antagonistic toward the U.S. will not be eligible for arms under the preference ordering outlined above. Such states represent potentially lucrative customers for Russian arms. In Putin's state profit for those sectors deemed vital is a means in itself. Goading the U.S. is probably just an added bonus to these interactions. The bureaucratic infighting inherent in Russia's system will play itself out in the domestic actions and acquisitions of ROE, but shouldn't affect the primary foreign policy mission of the firm. No matter which faction wins domestically, it is in the interest of the state to promote the sale of arms to the greatest possible extent, as the interest of the state in Russia can be inferred from the actions of its state-owned firms.

Case Study Dimensions

The most obvious difference in priorities between the Russian and U.S. models of arms export agencies is that Rosoboroneksport is tasked with finding customers for

Russian weapons - and has a profit motive for exporting more weapons. The U.S. model is one of restraining potentially harmful (as defined in the Arms Control Export Act) sales. This difference in the priorities established for each of these agencies sets up the primary question for the case studies of decision-making that follow.

The description of the export control agencies for the U.S. and Russia provides a contrast of the potential priorities of the two states regarding arms exports. In the case of Russia, arms sales are explicitly considered to be a key component of the Russian state - in the same way that natural resources are. The state runs the agency with the explicit purpose of promoting the sale of weapons and earning revenue for the state itself. In the U.S., the motivation for arms sales does not come directly from the state in the same revenue-seeking manner as Russia. However, there are pressures on the state to allow defense firms to export their weapons from both inside and outside the bureaucracies.

I take as my starting point for the case studies of Russian and U.S. arms sales that comprise the following chapters that Russia and the U.S. have a default "yes" position on the sale of arms. The internal pressures that a state experiences to allow arms to be sold are powerful enough in both states to make arms sales the default position of the state. The U.S. system allows for more veto players (Tsebelis 1995) to prevent sales, but these veto players only interfere when the particular case of arms sales has significant negative implications. The sources of pressure on arms sales to particular states may come from internal constituents, international organizations, or other states. Indeed, it is likely that internal pressures will have more influence on decision-making in the U.S. case than would external pressures.

Krasner's (1978) study of the national interest demonstrated that these pressures are only effective at the lower levels of preference ordering. In the U.S. case this may mean that the sale of arms to states that do not clearly strengthen the U.S. may be blocked if they can be demonstrated to be detrimental to world peace. If the sale of arms cannot be defended in terms of strengthening the United States or improving world peace, the

other issues listed above may be points where effective pressure could stop arms sales. Pressure for selling arms, should be more effective when national security concerns are raised.

In order to explore the potential causal mechanisms for changing the "default yes" position, it is important to choose cases that involve a change in status from either yes to no, or no to yes on arms sales. This does involve selecting cases based on the dependent variable (Geddes 1990). A change in arms sales position is the dependent variable in the cases examined. In this case I rely on the logic shown by Dion (1998), in that I am testing cases of necessary conditions for changing the decision to yes. I also try to avoid pitfalls associated with selection on the dependent variable by examining cases that move in each direction – that is from "no to yes" and from "yes to no" on the sale of arms. In addition to these measures, these cases are being explored in an inductive "theory generating" or exploratory manner. In such situations case studies can "…play an important role in *development* of theories" (George and Bennett 2005, 209 emphasis in original).

There are three real potential areas ways that states change their sales position. Two of these are pure changes, and the third is a hybrid of these two. First, a state can begin selling arms to a state that it had not previously sold to. Second, a state can stop selling arms to a state that had previously been a customer. Third, a state can resume sales to a state which had previously been a customer, but which had stopped being a customer for some reason or another. The next section details how I identified potential cases that fit these criteria, how I settled on the pool of potential cases, and how I chose the cases to study from this pool of potential cases.

The independent variable that explains why a state changes its default position on the sale of arms is that of political pressure. As noted above, this pressure can come from a number of sources. Pressure from arms manufacturers, from lobbyists, from politicians whose districts benefit from arms sales, or pressure from other interest groups (R. O.

Keohane 1971; Pratt 1983) can be applied from *within* the state. Embargoes and sanctions (Lektzian and Souva 2007; Marinov 2005; Peksen and Drury 2010; Weiss 1999) as well as international public opinion (O. R. Holsti 1992; Risse-Kappen 1991) can be applied from *outside* the state. The sources of this outside pressure can be IGOs, NGOs, or other states.

These competing sources of power are present at all times to one degree or another. Two factors important to the case studies are derived from the assumption that the default position for both the U.S. and Russia is to allow (if not promote) the sale of arms abroad by domestic firms (in both cases with either explicit or implicit approval by the state). The first consideration is that a change in the policy of the state (the dependent variable) implies a shift in the balance of these competing forces. The second consideration follows from this first - political pressure changes are dynamic.

In Figure 5.1 the potential sources of pressure and the direction ("+" or "-" meaning pro-/anti-sale respectively) are indicated. The strength of pressure is bounded by the importance of the actor on the one hand, and the context of when that pressure is applied. One important piece of context is whether the actor can make an argument moving an issue from one national interest preference to another. The direction of this move is dependent on the position of the actor. For example, if members of Congress are trying to prevent the sale of weapons to a certain country, the strategy would be to question the benefit of such sales to national security. If they succeed in moving the sale from the domain of strengthening U.S. security to weakening it, they may succeed in changing the policy. Conversely, if the president can couch such a sale in terms of strengthening the U.S., the efforts of the Congress are more likely to fall short in changing the policy.

These two factors, the changeable (but not necessarily changing) nature of political pressure and the assumption that the policy changes when a tipping point in political pressure is reached, are the basis of the case studies.

The way that I have set up my case studies is to examine the potential causal mechanisms for policy change. I hypothesize that these changes are the result of a shift in the balance of competing pressures placed on policy makers by outside groups. The case studies are a rough test of these causal arguments because they seek to identify the sources of pressure and identify points at which these pressures changed. In the typology of cases proposed by (George and Bennett 2005), my cases are primarily used to test the hypothesis about the mechanisms for changing arms sales foreign policy.

As I noted above, the independent variable in these cases is pressure. Measuring pressure is similar to measuring power or other abstract concepts. Jackman (2008, 119) points out that many of the problems that we face in the social sciences "…involve making inferences about quantities that are not directly observable." Jackman is primarily concerned about the use of latent variables in statistical models, but his discussion is still pertinent to these theory exploring cases. In order for models in which observed variables are linked to the latent concept to be successful, those models must meet two criteria: validity and reliability (Jackman 2008, 119–20). The most important of these for this discussion of the cases in the following chapters is whether or not the measures are valid, or that it "measures the concept that we want it to measure" (Jackman 2008, 121). Figure 5.2 shows the potentially observable sources and causes for pressure. Statements from actors are probably the clearest indication that pressure is being brought to bear. However, conditions within a state may reveal issues which can become reasons that actors may change their position and begin to apply pressure to the executive to change the policy.

In the following chapters I use the list in Figure 5.1 of potential sources of political pressure to guide my examination of potential cases of decision-making. For example, I searched for statements from the list of actors above. If statements were found regarding arms sales in the period close to where a decision was made they were classified as being either positive or negative. I provide figures on potential sources of

pressure for each case. I also outline the arms transaction immediately following the change in status (for new or resuming sales) or at the last transaction made (in the case of ended relationships.)

These measures describe features in the dyadic relationship between the exporting and importing state. While the default position for the U.S. and Russia may be to sell, this is only possible when the recipient state also has a need or desire to buy. Thus in trying to determine causal mechanisms for changes in export patterns by the U.S. and Russia it is critical to account for the recipient state's status regarding arms purchases. This is one more reason that the selection of cases is not necessarily a matter of selection on the dependent variable. The potential cases may not be cases of a change in policy by the selling state, but a decision on the part of the purchasing state. In the case of Russia, I find that the cases of ended relationships are due more to the purchasing state than by Russia.

Case Selection

For each state I selected one of each type of potential decision-making. These are cases where a state stopped selling arms to a previous customer, began selling to a new customer, or resumed sales to a previous customer. Potential cases were found by first examining the export patterns of both the U.S. and Russia in all of their arms transactions from 1950 through 2010. These patterns were made using data from the SIPRI database (SIPRI 2011e) and graphing arms transactions by each state of interest to each of their customers by year. Years in which sales occurred were denoted differently from years in which no sales between the states were recorded by SIPRI. Each state was classified into one of the three types - new customers, returning customers, and ended relationships. In some cases a decision as to the type of case a state's arms patterns fit was ambiguous.

These states were classified on both dimensions. The period of interest in all of these cases was post 1991.

Appendix A to this dissertation includes the full potential list cases for both Russia and the U.S. that were identified by examining the patterns of arms sales. I also provide the graphical patterns for the arms trade relationship for these potential cases that I used in my initial classification of the case types.

After identifying all of the potential cases for each state, I made a more critical cut at the potential cases. Cases that were weak in terms of duration and apparent strength of the relationship (as determined by the number of sales) were dropped from consideration. States that were not clearly one type or another were also dropped from the final list of potential cases.

Table 5.1 shows the final pick list of potential cases for both the United States and Russia for each type of case. The overall idea behind the cases is that the decision to change a trading relationship is the dependent variable. Because I hypothesize that the default policy of both state is to sell weapons, the decision to terminate a relationship is the case that most fits the theoretical framework of the decision-making pressures. The patterns for these potential states can also be examined more closely in Appendix A.

Gerring (2008) provides a table of the different case selection techniques. In his characterization, the potential cases that are listed in Table 5.1 are probably considered to be either typical cases or diverse cases. These cases are typical because they illustrate the change in relationship that signifies a decision has been made. They may be diverse because I am examining different decision outcomes of policy-making. The case selection strategy that I employ here is also different than many approaches to case study research. I have examined the data to find a pattern and have chosen potential cases based solely on the pattern exhibited in the data. In other words, I am trying to avoid the trap of using well-known cases to simply confirm my intuitions.

I am choosing to study the underlying decision-making of the state based on these patterns with the assumption that the states have indeed made decisions in these cases. With this wide selection of potential cases I am relying on the prescription given by Fearon and Laitin (2008) about ways to integrate quantitative and qualitative research strategy. Specifically, I am randomly selected the cases from the list in Table 5.1 to study in the subsequent chapters. These cases were "chosen for me by a random number generator" (Fearon and Laitin 2008, 764) for each of the different types of cases and for each of the two states. This particular method is recommended by the authors in order to "protect" the researcher "…against the risks cause by (known and unknown) systematic bias is case selection"(Fearon and Laitin 2008, 764).

Randomizing the case selection process was the final step in choosing the actual cases studied in the next two chapters. Table 5.2 shows the cases selected using a random number generator[28]. For each case I chose a primary case for each state (Russia and the U.S.) from each type. In order to allow for the possibility that some potential cases may suffer from a lack of data I also chose a back-up case after going through the selection process for each of the primary cases.

Table 5.2 shows the case numbers of the potential cases for both Russia and the United States and their alternatives. For cases in which arms were sold to a new state (Type 1) the case for the United States is Estonia, and for Russia it is Turkey. Turkey is the alternate for Russia, but I chose it as a case after beginning the case studies because of the murky territory of calling Turkmenistan a new customer for Russian arms. As a Soviet Republic, it shares a military and equipment legacy with Russia that makes a new customer argument difficult to sustain. Turkey is a good example of a new customer.

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[28] The numbers were generated using random.com. This number generator uses atmospheric noise to generate random numbers and is supposed to be truly random rather than using a computer algorithm to produce pseudorandom numbers.

The second type of decision is a middle type of case. That is the Type 2 case where arms sales to a previous customer stopped and then resumed. It is potentially interesting because there may be potentially two data points (reasons for stopping, and the reason for re-starting) that may or may not be different. The countries chosen for study in this particular type were Bangladesh and Jordan for the U.S. and Russia respectively.

The final type of case is the most clear-cut for examining the assumption of the "default yes" and the potential sources and mechanisms of policy change. These are cases in which arms sales between the United States and a country and Russia and another state ceased. The countries chosen for these cases from the list of potential cases are Yemen for the United States and Finland for Russia.

Conclusions

In this chapter I have outlined the structure of the agencies within the United States and Russia which are responsible for the export of arms from those states. I have outlined the logic of competing pressures from various groups as the independent variable in cases where states change their arms export policy relative to another state. I identified this change in policy as the dependent variable in a series of case studies. I also outlined the three two primary and one derivative types of choices that states have in their arms export policy. They can either start a relationship, end it, or resume it.

After outlining the logic of the cases and the parameters for choosing cases, I offered an explanation of my case selection method. This method relied on random selection from a stratified pool of potential cases.

In outlining the potential cases and the methods by which I chose them I wish to highlight the myriad of potential factors that come to bear on large-scale policy decisions. Arms transfers are economically important, but also have a strong symbolic component.

For a state that imports weapons, the type of weapons imported is important as is the source. In the case of the United States there is evidence that the symbolic aspect of arms transfers is a powerful motivator for policy makers to be circumspect in their decisions. The human rights record of recipient countries is one factor that is considered in these sales (Blanton 2005). The expectation and reputation of the state is a factor that is difficult to measure, but which can influence decision-making.

It is to such difficult connections that I now turn in the following chapters.

Figure 5.1 - Potential Sources of Political Pressure

Sources of Political Pressure			
	Source	**Direction(s)**	**Strength**
Internal to State	*Congress*	+ / -	Med - High
	Interest Groups	-	Low - Med
	Arms Manufacturers	+	Med - High
	Executive Departments	+ / -	Med - High
External from State	*IGOs*	-	Low - Med
	NGOs	-	Low - Med
	Individual States	+ / -	Low - High

Figure 5.2 - Case Study Variables

Case Study Variables	
Actor	**Variables**
Export State	Congressional (Duma) Support/Opposition
	Defense Department (MOD) Support/Opposition
	State Department (MID) Support/Opposition
	Presidential Statements in Support/Opposition
	Interest Group Support Opposition
	Arms Manufacturer Support/Opposition
Import State	Human Rights Record (PTS Score)
	Military
	Type (Conscript/Professional)
	Changes
	Size
	Polity Score
Joint	Trade
	Arms Trade Patterns (Volume/Type/Frequency)
	Disputes (MIDS, ICOW Disputes)
Other Actors	NGOs
	IGOs
	UN Security Council Resolutions
	Other State resolutions/statements

Table 5.1- Final Pick List for Case Studies

Final Pick List for Cases

Type 1 - New Customers after 1990			
US		Russia	
Case #	**State**	**Case #**	**State**
1	Czech Republic	1	Armenia
2	Estonia	2	Azerbaijan
3	Hungary	3	Colombia
4	Kazakhstan	4	Croatia
5	Latvia	5	Ecuador
6	Poland	6	Eritrea
7	Romania	7	Greece
		8	Kazakhstan
		9	Malaysia
		10	Mexico
		11	Slovak Republic
		12	Turkey
		13	Turkmenistan
		14	Venezuela

Type 2 - Returning Customers after 1990			
US		Russia	
1	Afghanistan*	1	China
2	Iraq*	2	Czech Republic
3	Ireland	3	Indonesia
4	Yemen	4	Jordan
		5	Mongolia
		6	Morocco
		7	Sudan

Type 3 - Ended Customer Relationships After 1990			
US		Russia	
1	Bangladesh	1	Angola
2	Gabonese Republic	2	Bulgaria
3	Guatemala	3	Congo
4	Uruguay	4	Finland
5	Venezuela	5	Hungary
		6	Kuwait

* These cases are probably special cases since they both occurred after the U.S. engaged in war on these states' territory.

Table 5.2 - Cases Selected

	Case Selection*	
Case	US	Russia
Type 1	2	13
Type 1 (alternate)	6	12
Type2	4	4
Type 2 (alternate)	2	5
Type 3	1	4
Type 3 (alternate)	4	5

* Case numbers chosen using random number from random.org on 11/19/2012. The parameters for each number were given (i.e. an upper bound) for the case type. If the number chosen was too high, the number was re-drawn until an actual case number was chosen.

CHAPTER 6 - U.S. ARMS SALES DECISION-MAKING IN ESTONIA, YEMEN, AND BANGLADESH

This chapter and the one following consist of case studies that describe the decision-making process and actions between the U.S., Russia, and a subset of the countries with which they have an arms sales relationship. The purpose of these chapters it to try to work out the ways in which decision-making within the selling states works. As I noted in the previous chapter, there are two primary scenarios when we will likely see decision-making within the selling states. The first is when a state decides to begin an arms sales relationship with a state with which it had previously not engaged. The second is when a state makes a decision to end an arms sales relationship with a state. The third type of case in which we can see decision-making at the selling state level is a special case that combines these two primary types. That is when a state resumes a relationship with a customer state.

An important assumption that I make regarding arms sales from the United States and Russia, and which I dealt with in the previous chapter, is that for the selling states the default position on arms sales is "yes." This is much more pronounced in the case of Russia because the arms export agency is tasked with providing revenue to the state through its arms sales activities. In the U.S. case the Directorate of Defense Trade Controls (DDTC) is an agency that oversees and regulates arms and technology sales, but within a framework of enforcing U.S. policy ("Country Policies and Embargoes" 2012, "Mission" 2012).

One of the fundamentally difficult issues of understanding causality in arms sales is that each of these arms sales transactions involves both a seller and a buyer. For Rosoboroneksport (ROE) this means that even with a mandate to find markets and sell Russian-made weapons wherever possible, the recipient states must first make a choice to purchase weapons from Russia. In the case of Russia, where the government has a

visible interest in actively promoting arms sales, this may mean a foreign policy that encourages and incentivizes such purchases for the recipient states. Such deals are relatively common for Russia, and negotiations with other states regarding large arms contracts can involve the head of state ("India, Russia Sign Defence Deals" 2012).

It is impossible to unpack the decision-making direction from aggregate measures of arms flows. The SIPRI (2011e) data that I have used throughout this study are excellent for examining the large patterns of arms flows, but understanding the general patterns of arms flows is only the beginning. In this chapter I return, in part, to the central question of this research project: *How does providing coercive capability to another state affect the subsequent foreign policy decisions of the state providing the weapons?* In order to understand how arms transfers fit into foreign policy broadly we must examine the processes of arms transfer decision-making within the state.

In the previous chapter I defined the independent variable for policy-making regarding arms sales as pressure. This pressure comes from many sources, both internal and external. These sources of pressure can be varied. Overall, I view this pressure to change as a tipping point model (conceptually) in which many small sources (or a few large sources) of pressure can add up until a point is reached that a decision must be made. These sources of pressure and the way that they work are not easy to measure or quantify. This is one of the reasons that I choose to use holistic narrative approach to examining specific arms transfer decision-making. Using the term "independent variable" to describe my conception of pressure risks putting too fine a point on the concept. A more apt description for political pressure may be to think of positive pressure and negative pressure as ideal types (Collier, Laporte, and Seawright 2008, 161) within a typology of decision-making.

Besides the problem of finely measuring pressure on decision-makers within a state, the cases examined in this chapter and the next also suffer from another limitation. That is when each of the cases was chosen it was unclear whether there was any evidence

of decision-making on the part of the selling state. The dyadic relations were chosen based on the selling state – Russia and the U.S. because of the nature of the question asked. The purchasing states were chosen based on the larger-scale patterns of sales between these dyadic pairs of states. These dyads were chosen based on the assumption that starting and stopping the arms sales relationship involved decision-making at the state level. After identifying potential dyads for study, the actual cases were chosen using a randomized sample.

One of the primary reasons for examining these cases, then, is to explore whether or not the hypothesized decision – the one that suggests itself in the patterns of data – actually occurs. This randomized sample of state risks turning up three cases (one each for the ideals of "stop" and "go" and one for the mishmash "stop then go" case) in which it is unclear whether a conscious decision by recognized agents of the state was made. Finding evidence of decision-making processes is difficult in the case of the United States. It is more difficult in the Russian context.

The cases are structured then as a sort of two-step test of the proposition that decision-making at the state level even matters. The first part of the test is whether or not a decision is important enough to register some evidence outside the *ex post* evidence that it was made (i.e. the record of an arms sale by a Norwegian think tank). The second part of the test is to examine the pressure that was brought to bear on the decision.

Overview of Case Layout

Each of the three types of case for each state is examined in the same way. First, the purchasing state is briefly described across a number of dimensions that have been shown to affect foreign policy in the past. Each state's human rights record, regime type (as measured by Polity), and military structure is described briefly.

After examining these characteristics of the recipient state within the dyad, some characteristics of the dyad are described. The primary characteristic is the trade profile between the two states as measured by the flow of trade between them.

After describing these characteristics, the arms transfer relationship between these two states is briefly described. In this description there is an emphasis placed on the point in which the hypothesized decision-making may – or may not – have occurred. For instance, the first case in this chapter examines the sales by the United States to Estonia. Estonia had not been an arms customer of the U.S. prior to the collapse of the Soviet Union (for obvious reasons). After the collapse of the Soviet Union, Estonia began purchasing weapons from the United States. These initial sales (as well as the other imports to Estonia) are examined in order to give context to this particular sale. Next, I describe the overall relationship between the two states.

The remainder of the narrative is the evidence, or lack thereof, of discussion about arms sales between these two states in the period leading up to, and immediately after the decision-making period. It is in the narrative that I weigh the potential for classifying and "measuring" the type and degree of pressure that existed regarding the sales of arms.

Type 1 Decision – U.S. Estonia Arms Sales after the 1991 Collapse of the Soviet Union

Estonia was incorporated into the Soviet Union during WWII in an action that was never formally acknowledged by the United States. It gained its independence from the Soviet Union in December 1991, and the last Russian troops left the country in 1994. Estonia joined the EU and NATO in 2004. Estonia has a very small population – just over 1 million inhabitants, of which ethnic Estonians make up nearly 70 percent. It is one of the smallest countries, by population, in the world. It has a fairly strong economy with

exports in machinery and electrical equipment, wood, metal, furniture, and others. Its largest trading partners are Sweden, Finland, and Russia. ("Estonia" 2013)

Estonia is strongly democratic, and has a good human rights record. Figure 6.1 shows the polity score (Marshall and Jaggers 2002). After the collapse of the Soviet Union it took a few years for Estonia to reach a Polity score that is considered indicative of a democratic regime. That happened in 2000. Estonia has remained democratic since that time.

Figure 6.2 shows the trend for human rights abuses. To make this graph I used data Gibney et al (2012) which compiles information from Amnesty International and from the U.S. State Department regarding human rights abuses in states. This scale is measured from 1 – 5 with 1 being better. States with a 1 are considered to be governed by the rule of law, and to be free from political terror. A state that is ranked 5 is one in which political terror and human rights abuses are widespread. In Chapter 6 I use the data from the United States Department of State (as compiled by Gibney et al) because it is likely that U.S. decisions will be based on data compiled by U.S. agencies.

It is clear from the Polity and human rights data shown in figures 6.1 and 6.2 that Estonia is not a state that would be considered for adverse action by the United States because of its regime or human rights record. In the last chapter I hypothesized that the default position of the DDTC is to say yes, unless there is some compelling reason for it to reject an arms sale proposal by a firm. In the case of Estonia, there does not appear to be any *prima facie* case to think that any proposed sale to Estonia would be subject to scrutiny.

The next component of this analysis of U.S.-Estonian arms trade is to examine the dyadic property of the trade between these two states. One of the primary reasons to examine the overall patterns of trade between the two states is to determine whether simple trade gravity is a possible explanation for the trade in arms. In the case the United States and Estonia, the amount of trade between the states is quite small. Figure 6.3

shows the amount of trade between the states from 1991 and 2009. The data for these figures comes from Barbieri and her coauthors as part of the Correlates of War data collection project (Barbieri and Keshk 2012; Barbieri, Pollins, and Keshk 2009). At no time doe the exports from either of these countries to the other even approach 1 percent of total exports. The strength of existing trade ties for other goods does not appear to be an important factor for these arms transfers.

The next area to examine is the composition of the Estonian military. Estonia has a very small military. The entire military consists of 5000 personnel. This places Estonia in 128 out of 166 states with militaries. It has conventional arms imports of around $5 million dollars, which makes it one of the smallest importers of weapons among all states ("Estonia Military" 2013). Figure 6.4 shows the states that Estonia has traded with during the 2000s. The source for the data in Figure 6.3 is SIPRI (2011e). The sources of Estonian military imports are varied, but come primarily from other NATO states.

Decision-Making in the Estonia Case

The characteristics of the Estonian state today make the sale of arms from the United States seem to be unproblematic. The types of weapons are uncontroversial. The United States shipments of arms to Estonia has consisted of a cargo ship, air defense radar, and four helicopters in the nearly 20 years since arms sales have been authorized from the U.S. (SIPRI 2011b). However, the perspective of today does not necessarily mean that the initial decision-making that made arms transfers legal was automatic.

After the collapse of the Soviet Union in December 1991, the states that emerged were included in the arms ban that had existed between the United States and the Soviet Union. Westreich (1993, n. 57) in an article about the U.S. failure to enforce its arms exports laws included a list of all states that were currently (as of 1993) banned from U.S. arms exports. Estonia was part of that list. However, by March 22, 1994 President Bill

Clinton had lifted the ban on weapons sales to the three Baltic states, Romania and Bulgaria, and Albania ("Estonian Reaction to Us Decision on Lifting Arms Embargo" 1994).

The decision to lift the arms export embargo was a part of an evolution in the relationship between the states of the former Soviet Union – and its Warsaw Pact allies – and NATO. Beginning in 1991, at the Behest of the German government, NATO formed the North Atlantic Cooperation Council (NACC) in June 1991 to hold "...discussions on arms security…consultations on implementation of arms control agreements, relations between the civilian and military sectors in a democracy, and means to convert defense industries to civilian industries" (Gallis 1994, 1). The NACC was the initial framework for the Partnership for Peace (PfP) program which was endorsed at the NATO summit in Brussels in January 1994. The goal of the PfP was to make it easier for NATO to respond to security situations, and to open a path for partnership countries to join NATO (Gallis 1994, 2–3).

Estonia, along with its Baltic neighbors was among the first states to gain membership in the PFP. The official date of Estonian membership in the program was March 2, 1994. In fact, the states where the weapons ban was lifted by President Bill Clinton on 22 March 1994, were all signatories of the PfP in the brief period of time from the endorsement of the program in January and the decree of March 1994("NATO - Signatures of Partnership for Peace Framework Document" 2013).

The first sales from the U.S. to Estonia came in 1997 with the sale of a cargo ship to be a part of Estonia's border guard services. The sale of air search radar in 2003 and four R-44 helicopters in 2004 represent the rest of the recorded arms sales from the United States to Estonia (SIPRI 2011b). None of these sales represents a weapons system that can be used for offensive military capability. Although President Clinton ended the ban on weapons to Estonia, legislation (HR4426) which allowed "non-lethal defense articles" available to countries like "Poland, Hungary, and the Czech Republic" that were

making democratic progress, meant that the effective policy on arms exports was limited to non-lethal items (Gallis 1994, 8).

Estonia joined NATO as a full partner in 2004 along with the other Baltic states, Bulgaria, Romania, Slovakia and Slovenia ("NATO - Signatures of Partnership for Peace Framework Document" 2013). There have been no arms sales recorded by SIPRI between the United States and Estonia since Estonia became a full NATO member.

The sale of arms to Estonia was the result of a specific set of decision-making at the highest levels of the U.S. government. While Estonia was a small player (states such as Poland, the Czech Republic, and Hungary were of more importance to the interest of the U.S.), it was part of a group of countries, which for historical reasons had been denied arms imports from the United States. Changes in the geopolitical configuration of Europe after the collapse of the Soviet Union caused decision-makers to reevaluate the ban as part of a restructuring of relations between the Central and Eastern European states and "the West."

I have argued that the default position for arms sales by the U.S. is a "yes" unless there is a compelling political or strategic reason for that position to be "no." Estonia as part of the Soviet Union, the primary adversary of the United States for 40 years of Cold War, fit the description of a state with a compelling reason for a "no" sales position. Large-scale changes to the geopolitical circumstances that led to the ban did not result in an immediate change of the U.S. position. It took more than two full years after Estonian independence in order for the U.S. to lessen the restriction. Even when the restriction was removed, Estonia (and its cohorts) did not receive *carte blanche* access to the U.S. market.

The case of Estonia shows that there is active policy-making regarding arms sales to foreign states. While the default position argument is an important heuristic for understanding many (if not most) cases of arms transfer decisions, this default position is the result of a policy *decision* that was made at some point. Polls taken in Europe and in

the United States in this period indicate that support for NATO enlargement was high (Van Metre 1997). I did not find evidence of large-scale pressure for arms sales (to Estonia or any other its cohorts) during this period.

Type 2 Decision – U.S. Yemen Arms Sales after 9/11

Yemen gained independence from the Ottoman Empire in 1918, but was still heavily influenced by the British, who set up a protectorate around the port of Aden, until 1967. In 1970 the state was split as southern Yemen adopted a Marxist government ("Yemen" 2013). The next 20 years were characterized by antagonism and fighting between the north and south. In 1990 the two countries were formally unified into the Republic of Yemen.

Yemen's size and population are roughly similar in rank compared to other states in the world. It is the 50th largest country in terms of area, and 47th in terms of population ("Yemen" 2013). The population of the country is around 25 million, and like other states in the region has a very young population.

U.S.-Yemen relations are not characterized by strong bilateral military and economic ties. In addition to this, the U.S. has a strong distrust of the Yemeni government's response to groups that are heavily involved in international terrorism (Sharp 2010, 25). After Yemen was reunited in 1990, the U.S. has made combating these terrorist groups a priority in its relations with the Yemen government. This was a priority after the attack on the U.S.S. Cole in 2000 and the 9/11 attacks on the United States.

The U.S. began to renew its military cooperation with Yemen in the late 1990s, despite serious differences over foreign policy. This was due to growing concern over Yemen's status as a haven for extremist and militants. "During the early years of the George W. Bush Administration, relations improved under the rubric of the war on terror,

though Yemen's lax policy toward wanted terrorists and U.S. concerns about corruption and governance stalled additional U.S. support" (Sharp 2010, 25).

Unlike Estonia, Yemen's profile is one that is likely cause U.S. reluctance to sell arms. Yemen's regime is closer to being autocratic than democratic (See Figure 6.5). The government is involved in wide-spread human rights violations (See Figure 6.6). U.S. trade with Yemen is even smaller than is its trade with Estonia – far less than 1/100 of 1 percent of U.S. trade is with Yemen (See Figure 6.7). As Sharp (2010) notes, it is the U.S. involvement in the war on terror and the fact that Yemen has become a place of refuge and training for Al Qaeda affiliated individuals and groups that has led to greater U.S. engagement in Yemen. This relationship with Yemen has tended to be solidly in the military realm – the issues of terrorism and protecting the oil shipping lanes being the basis for engagement – but U.S. involvement has also expanded to include other types of aid and development programs (Prados 2005).

Yemen's military is much larger than that of Estonia. It has a total of 66,000 military personnel, 37,000 of which are in the army ("Yemen Military" 2013). Yemen ranks 51st out of 166 states with militaries. However, when Yemen's military spending is put in terms of percent of GDP, the rankings change quite dramatically. Yemen spends 5.6% of its GDP on its military, which is the fifth highest percentage. Yemen spends nearly a billion dollars per year on its military which ranks as number 32.

Decision Making in the Yemen Case

Yemen was chosen as a Type 2 case because the United States supplied arms to Yemen at a few isolated points during the Cold War. The U.S. had one transaction each in the 1950s and the 1960s. Those isolated sales in each of those two decades are in some ways indicative of the level of involvement, generally, of the U.S. in Yemen during this period. The United States has engaged much more fully with other states in the

region, particularly Saudi Arabia. U.S. arms sales to Yemen resumed, despite restrictive measures put in place on arms transfers to that state in 1992 ("Restriction of Munitions Export Licenses to Yemen" 1992). In fact, this restriction was only partially lifted in 2012 ("Ammendment to the International Traffic in Arms Regulations: Yemen" 2012), six years after the U.S. began exporting military equipment to Yemen in 2006 (Liang 2011).

The amendment to the original 1992 rule regarding arms sales to Yemen indicates that there is decision-making going on regarding particular sales to Yemen. In fact, the restrictions on Yemen are such that all export license requests for military sales to Yemen are reviewed by the DDTC. The amendment to the rules regarding arms sales to Yemen came after six years worth of arms sales were already made, and as part of an active effort by the U.S. State Department to increase U.S. military sales abroad.

Increases in arms sales to Yemen are part of the broader U.S. State Department foreign policy mission, which includes a "…commitment to put strengthening American jobs at the center of our foreign policy and to use diplomacy to advance America's economic renewal" (Shapiro 2012). This push for U.S. exports of military equipment in order to protect U.S. defense industry is tempered by the policy mission of the DDTC which seeks evaluates all arms sales with respect to "… political, military, economic, arms control, and human rights conditions in making decisions on the provisions of military equipment and the licensing of direct commercial sales to any country" (Shapiro 2012).

In the case of Yemen it appears that political and military conditions are a more important factor in decision-making than are human rights. The decisions being made regarding arms sales to Yemen appear to be weighted toward the military since the U.S. is conducting counter-terror operations within Yemen. These operations have been going on for some time and include drone strikes by U.S. forces against high value targets. The

U.S. has only recently begun to acknowledge its involvement in military operations within Yemen (Peralta 2012).

To better gauge the U.S. commitment to Yemen, as it relates to arms sales, it is useful to examine the actual transactions. In the last case we saw that the U.S. and Estonia had limited sales and that those items were for non-lethal military equipment. This can be done, partially, using the data from SIPRI. The limitation with the SIPRI data is that it accounts for large weapons systems, but not always for parts and maintenance contracts or for small arms. This particular shortcoming was addressed in an earlier chapter – and for most international relations applications, these data are perfectly adequate. The arms sales that SIPRI picked up between the U.S. and Yemen for the years 2006-2011 were part of one order for 18 M113 Armored Personnel Carriers (APCs) to be supplied to the military in Yemen (SIPRI 2011g). Figure 6.8 shows that the U.S. is only one of a number of states that supplies Yemen with arms.

APCs serve an important function for government troops – keeping them safe in hostile areas – but they are not offensive weapons on the order of tanks, aircraft, or even infantry fighting vehicles such as the Bradley or Stryker vehicles. The M113 is used by many militaries throughout the world and has many uses. They are used as personnel carriers, command vehicles, ambulances, logistical vehicles, and mobile mortar platforms, for instance ("Australia's M113 APC Family Upgrades" 2012).

The State Department attributed other defense exports to Yemen besides the SIPRI data on the M113 that is used in the overall analysis in this study. In 2011, outside the range of dates used in this study, the United States sold a number of helicopters (Bell 205/UH1) to Yemen during 2011 ("State Department Approved Six-Fold Increase in Arms Exports to Yemen" 2012) along with a number of unspecified small arms (which do not show up in SIPRI trade registers).

The decision as to whether the United States allows the sale of arms to states with questionable human rights and democratic records is one that is, by design, weighed

against other foreign policy needs and goals of the state. The increased military relationship with Yemen's government in the fight against Al-Qaeda provides a powerful incentive for the United States to say yes to reasonable requests for the sale of arms to that state. This is added to the explicit goal of the State Department's DDTC that its mission is to help increase the number of arms sales made by U.S. firms as a part the economic strategy of the United States to remain competitive (and dominant) in the world arms market. This need for increased foreign arms sales is also related to the U.S. Defense Department's own need to cut back arms acquisition budgets.

The sale of U.S. arms to Yemen illustrates that the pressures of military alliances and other geopolitical concerns (questions of power related to realism) can outweigh the more liberal concerns for human rights and democracy when arms sales decisions are made by states. This is consistent with other recent scholarship that finds that the United States is more likely to sell arms to states with poor human rights and democracy records than is China (De Soysa and Midford 2012). This brief case illustrates some of the reasons why the stated policy goal of avoiding sales of weapons to such states is difficult to do.

Three other sources of pressures have been identified that, in combination, appear to trump considerations of human rights and democracy in the specific case of Yemen, and perhaps for other such "hard cases" in which the state is strategically important, but less than stellar in its record. The first of these competing interests is the continued threat to U.S. interests posed by groups associated with Al Qaeda. Second, the continued economic downturn and its affect on business domestically within the U.S., has also led to an increased pressure to allow firms to find other outlets for their military wares. The third source of pressure is one that is related to the second. Domestic economic and political conditions have forced the Pentagon to curb its acquisition appetite. Many firms that could earlier rely on the domestic market to keep them in the black are looking for other outlets for their goods.

The three sources of pressure identified are also ones that support the order preferences for U.S. decision-making in the National interest as outlined in the previous chapter. The primary concern is that the United States is strengthened. The war against terrorist groups is the most visible threat faced by the United States over the past decade. The economic struggles within the U.S. since the collapse of the housing bubble in 2008 are also a factor. If arms sales are a way to strengthen the domestic economy, and if those sales increase the safety of U.S. citizens (or even their perception of safety) then that will trump the second order concern of promoting world peace, or the third order preference of improving the receiving state conditions. The strength of these conditions is such that any concern about regime type or human rights can be easily overcome with a simple decision-heuristic. I found no evidence of high level pressure or talks in the Yemen case, which is unsurprising given the ability of a decision heuristic based on the state interest outlined to handle the decision-making load.

Type 3 Relationship – Ending arms Sales to Bangladesh

Bangladesh is the 95th largest country in the world with a landmass slightly smaller than the U.S. state of Iowa. Its population, however, is 161 million – making it the 8th most populous country in the world ("Estonia" 2013). The history of Bangladesh is tied to the creation of the Indian and Pakistani states, although the relationship between Bangladesh and India has not been characterized by the same tensions that have plagued Indian-Pakistani relations since 1947. During the past decade, Bangladesh has been subjected to a military coups and caretaker government. This military-backed caretaker regime was meant to root corruption out of the political system. Elections were held in December 2008, and those elections were mostly peaceful ("Estonia" 2013).

Bangladesh and the U.S. have had a long-standing relationship. The United States has viewed Bangladesh as a "…moderate voice in the Islamic world" (Vaughn

2006, 1). Vaughn identifies the major U.S. policy interests in Bangladesh as the following: "…political stability and democratization; continuation of economic reform and market-opening policies; social and economic development; environmental issues; counterterrorism; and improvement of the human rights situation" (2006, 1). Bangladesh's democracy, which has been increasingly destabilized by political violence, is of particular concern for the United States.

The level of Bangladesh's democracy is seen in Figure 6.9. This is a time series graph of the change in the Polity score over the past three decades (Marshall and Jaggers 2002). In 1990 Bangladesh transitioned from a military government to a democratic form of government. This transition is clearly visible in Figure 6.9. During the 1990s there were also a number of political crises (Rashiduzzaman 1997), but these did not result in a shift in the polity score. Even though the government form is notionally democratic, Bangladesh has not yet met the threshold to be considered a full democracy.

One of the more troubling aspects of the Bangladeshi political environment is the poor human rights record of the state. Figure 6.10 shows the level of human rights violations from Gibney et al (2012) in a time series. The level of political repression among the Bangladesh population is one that affects most of the citizens of that state. This is one of the concerns for the future of Bangladesh's democracy noted by Vaughn (2006, 1).

The human rights record is one indication that Bangladesh might not be a good candidate for U.S. weapons based on the criteria that arms sales should take into account human rights in its arms sales and licensing agreements (Shapiro 2012). As we saw in the case of Yemen, however, political and security considerations can trump human rights in the decision-making process. Even though Bangladesh has a poor human rights record, it has continued to be a large recipient of various kinds of aid from the United States. The average amount of aid to Bangladesh from 2003-2007 was over $50 million per year. This aid came in the form child survival and health aid, development

assistance, economic support funds, foreign military financing, international military education and training, and non-proliferation and antiterrorism programs (Vaughn 2006, 2). The United States and Bangladesh have relatively small trading relations with one another (See Figure 6.11).

Bangladesh has an average sized military. It has 137,000 personnel, with an army of 101,000, which is 24th (of 49) of states with armies ranked. Military spending is slightly below average at 1.14% of GDP (or 84th out of 145 states in the data). Bangladesh has an all-volunteer force and no conscription ("Estonia Military" 2013). Bangladesh has a large network of arms suppliers (Figure 6.12).

Decision-Making in the Bangladesh Case

Since 1980, the United States has primarily supplied the Bangladeshi military with aircraft, although in the early 1980s it provided a number of towed artillery guns as well (SIPRI 2011a). The last major contract for weapons systems from the U.S. to Bangladesh, according to SIPRI data was for 4 C130 Hercules transport aircraft in 1999. The SIPRI data used for case selection (Appendix A, Chapter 5) shows 2000 as the last date of U.S. arms transfers, which coincides with the trade register (SIPRI 2011a) account.

The change in Bangladesh's democracy (during the 2007 military caretaker government as shown in Figure 6.9) along with its poor human rights record, which seemed to have gotten worse in the past decade, or at least remained steadily very bad (Figure 6.10) make a compelling surface argument for the U.S. to end arms sales relations. Unlike the cases for Estonia, and Yemen, however, in the case of Bangladesh I did not find evidence of policy-making in changing the status of U.S.-Bangladesh arms trade after 2000. In fact, my research revealed a weakness in relying on the SIPRI data to infer the extent of a state's arms relationship.

The U.S. arms dual nature of U.S. export policy and enforcement is explained in Chapter 5. The State Department has the responsibility of approving export licenses for commercial enterprises that are selling arms technology and dual use technology to other states directly. The Defense Security Cooperation Agency (DSCA) operates the Foreign Military Sales (FMS) system, which sells U.S. weapons systems to foreign militaries directly. Much of this equipment is used/refurbished U.S. equipment. It also includes the construction of facilities as well as military education and training. Training and facilities construction are not picked up in the SIPRI data which tracks the delivery of major weapons systems between states.

According the DSCA, the United States has continued to supply Bangladesh with arms after the 2000 date when the SIPRI data indicate that arms sales between the two states ceased. There were a few years in which no sales agreements were in effect, but the U.S. and Bangladesh had agreements in 2009 for $1.6 billion and 2010 for $627 million in arms agreements. The high amount for arms sales between the two states for the decade in which SIPRI data do not indicate arms sales, according the DSCA, was in 2004 when $5.7 billion dollars of foreign military sales agreements were made (*Foreign Military Sales, Foreign Military Construction Sales and Other Security Cooperation Historical Facts* 2011, 3).

The SIPRI data are most likely to pick up sales that fall under the purview of the DSCA, so the discrepancy between the agency's records and those of SIPRI are somewhat surprising. One explanation for this is that there does tend to be a lag between the making of agreements and the delivery of weapons systems. The records from the DSCA does show that there were a number of years during the 2000s in which there were no sales agreements made between the U.S. and Bangladesh[29]. However, these same

[29] These years were 2002, 2003, 2006, 2007, and 2008.

records show deliveries of sold items in every year of that same decade (*Fiscal Year Series 2009* 2009, 96).

These two facts – that deliveries were made in every year and that SIPRI records no sales during this period – leads to the conclusion that the weapons delivered during this period may not fit in to SIPRI guidelines for major weapons systems. This additional information from U.S. government sources casts doubt on the appropriateness of Bangladesh as a case of an ended arms sales agreement.

Concluding Thoughts on U.S. Arms Cases

None of the states chosen to illustrate potential areas of arms transfer decision-making by the United States are among the top customers for the United States in terms of arms sales or other economic trading. These cases were chosen at random from a pool of potential cases, in order to minimize the potential problem of choosing cases in which the outcome and decision-making processes were known beforehand. The results of this look into the details of different arms relationships are a bit mixed, but overall are quite positive.

The main positive finding is that within the United States, arms sales are, at least at times, subject to actual decision-making at the top levels of the gogernment. I had hypothesized that there is a heuristic decision-making strategy in place for U.S. sales – that the default position when determining whether or not to okay these transactions is yes. The evidence from these particular cases also seems to confirm that this is the case.

The Estonia case was one in which the default, prior to the collapse of the Soviet Union, was of no sales. This decision rule did not change overnight after the Estonia's independence. In fact it took two years for this change to take place. These were years in which a number of important negotiations and diplomatic work took place. This included negotiations within NATO regarding the status of former Soviet states and East European

satellite countries. It wasn't until the Partnership for Peace was in place and these states had signed on to this new framework that President Clinton changed the arms sale decision rule by executive order. The fact that the President of the United States was a part of the policy-making process is an important finding that confirms the important place that arms transfers have in the foreign policy arena.

The case of arms sales to Yemen has less evidence of the direct involvement of the highest levels of decision-making. However, there is evidence that sales to Yemen have been affected by new areas of emphasis in the DDTC framework. Most important is the greater emphasis on giving the green light to sales as a way to protect U.S. jobs and industry. This greater emphasis on the economic impact of military exports has the potential to obviate foreign policy decision-making, however.

One of the theoretical arguments for arms sales as a foreign policy tool is that they can be used discriminately. If the primary driver of arms sales is commercial, those pressures have the potential to override other concerns that are still notionally important in the process. These other concerns include support for democracy, human rights, and other development. The tone of the DDTC in regard to domestic producer's needs will be an important area to follow in the future.

The Bangladesh case revealed a weakness in the way that I used the standard arms transfer data to conceptualize arms sales relationships. This particular weakness shows up when I looked at data from the U.S. government (DSCA) and its record of military deals and cooperation with other states. The SIPRI data is good from the standpoint that it captures the sale of major weapons of the type that can change the balance of power between states, but it does not capture the full extent of the full extent of military cooperation between states. This is evident in the fact that $5.6 billion dollars worth of sales were not captured in the SIPRI data.

Figure 6.1 - Estonia Regime Type

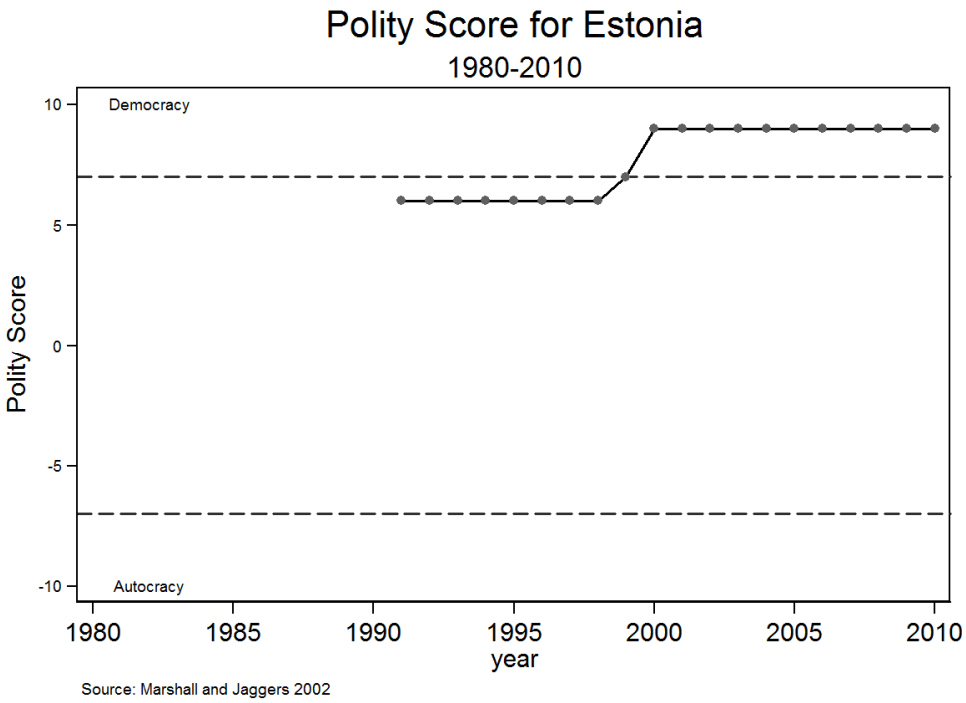


Figure 6.2 - Estonia Human Rights

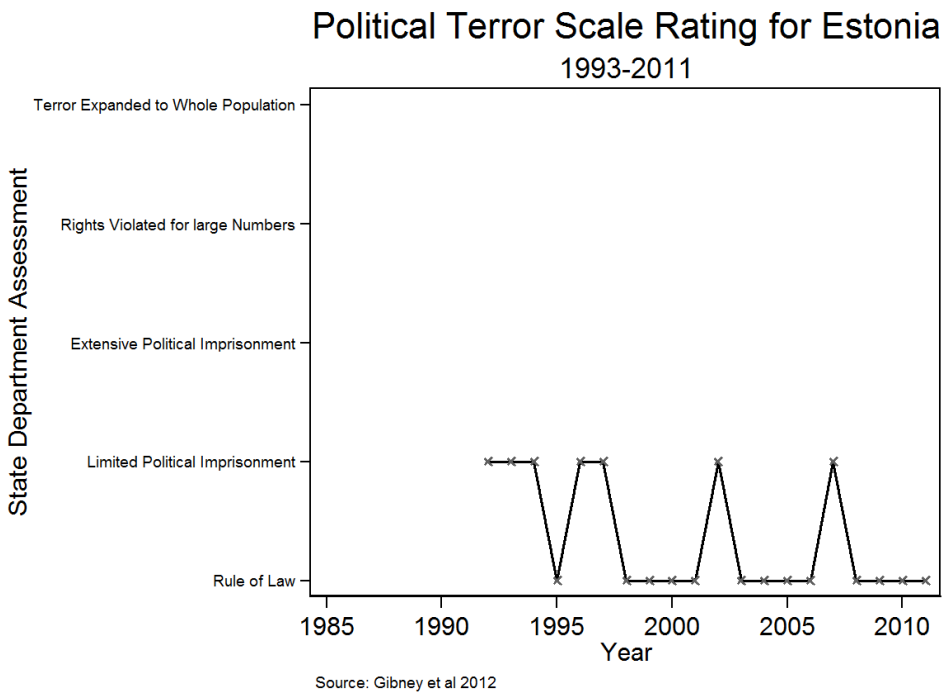


Figure 6.3 - Trade Between U.S. and Estonia

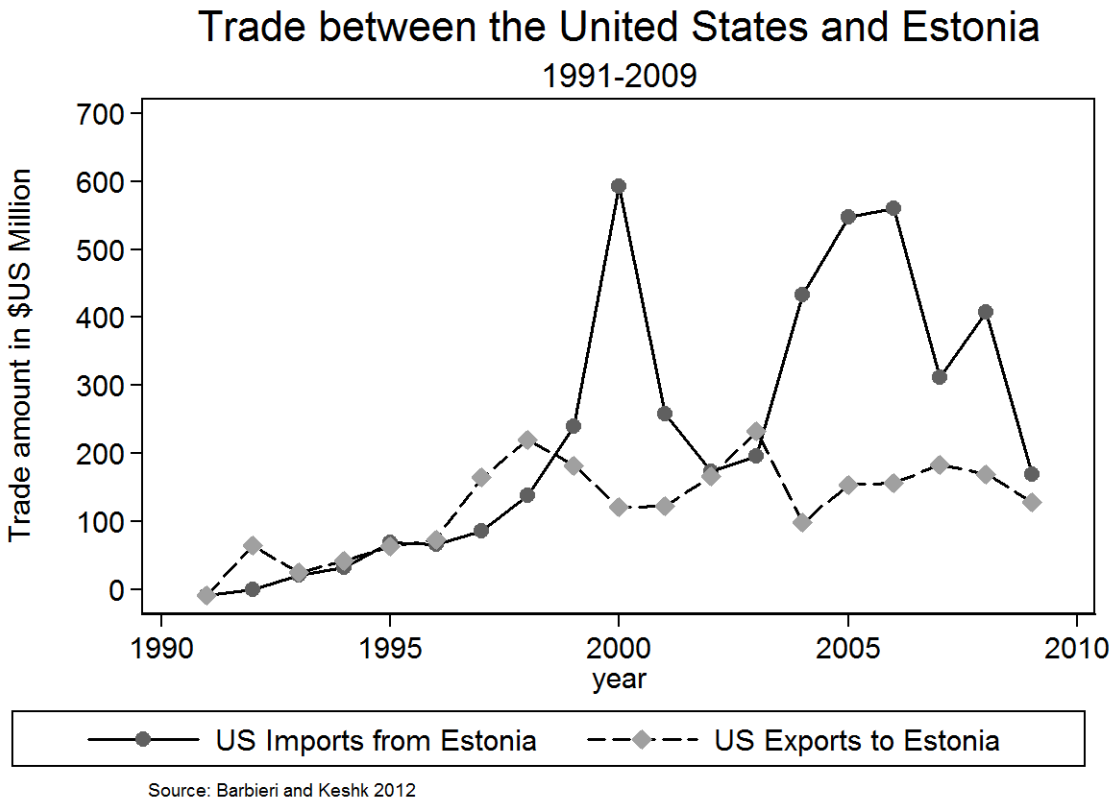


Figure 6.4 - Estonia Arms Network 2000s

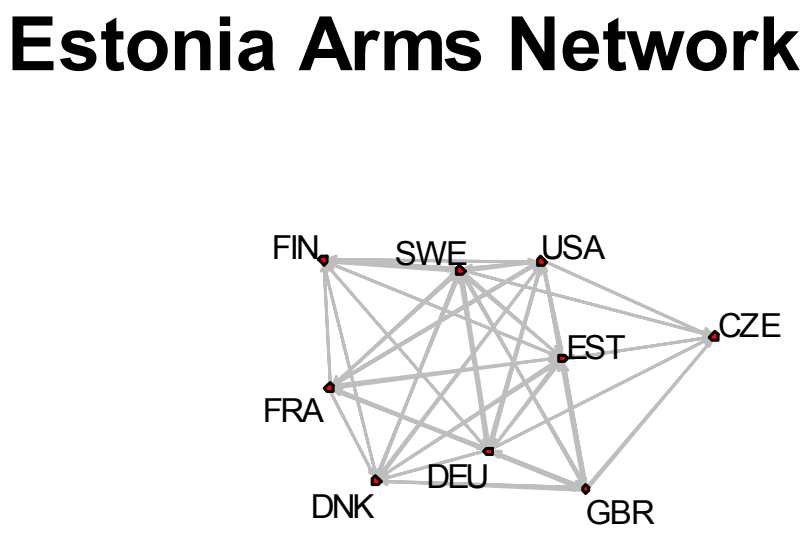


Figure 6.5 - Yemen Regime Type

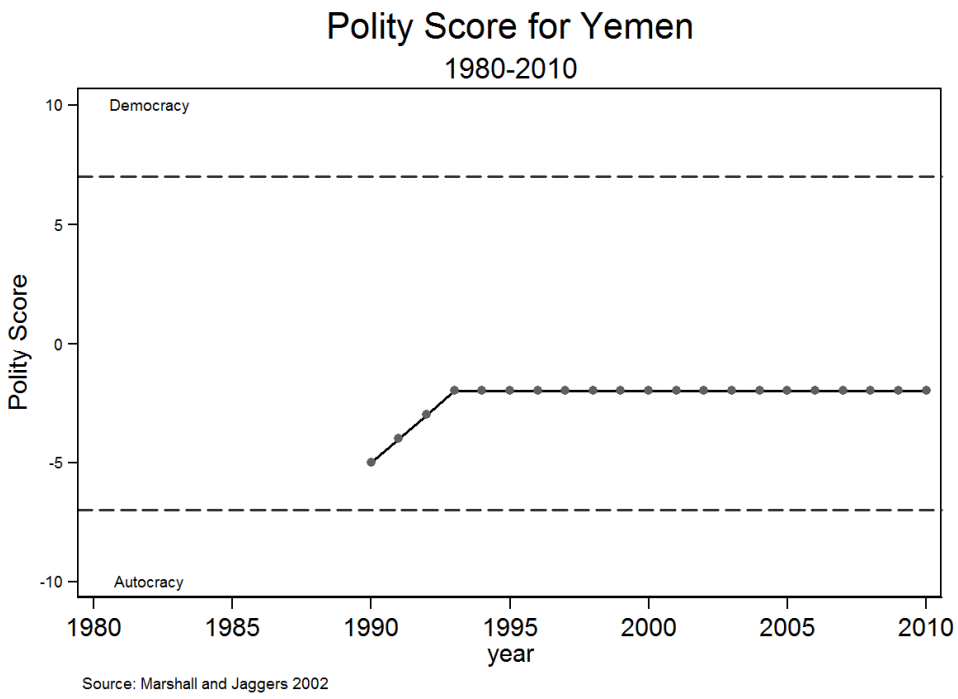


Figure 6.6 - Yemen Human Rights

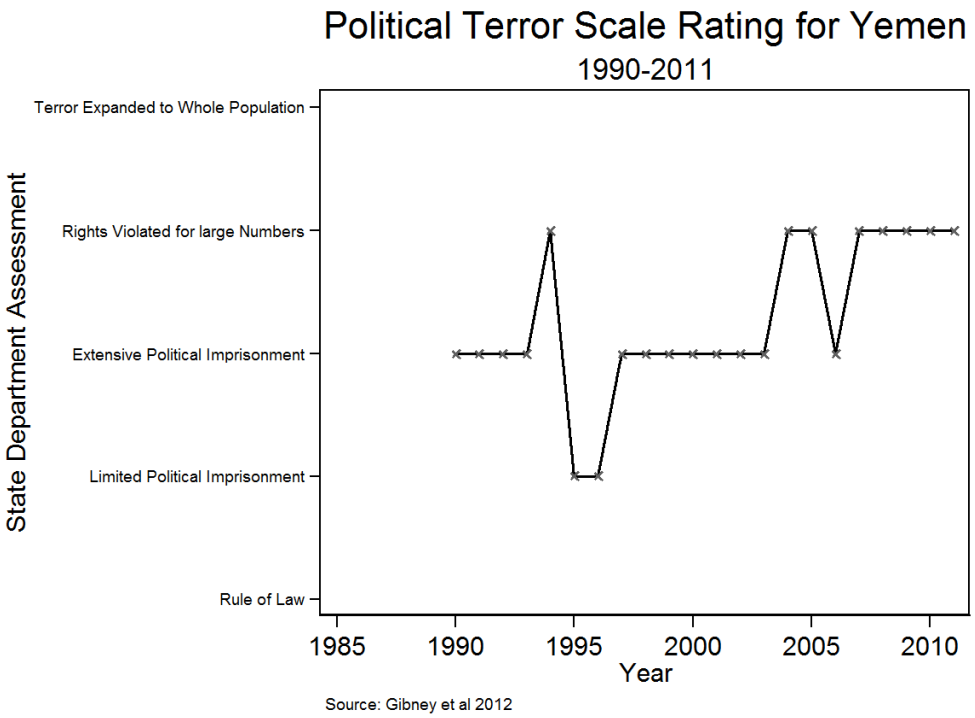


Figure 6.7 - Trade Between U.S. and Yemen

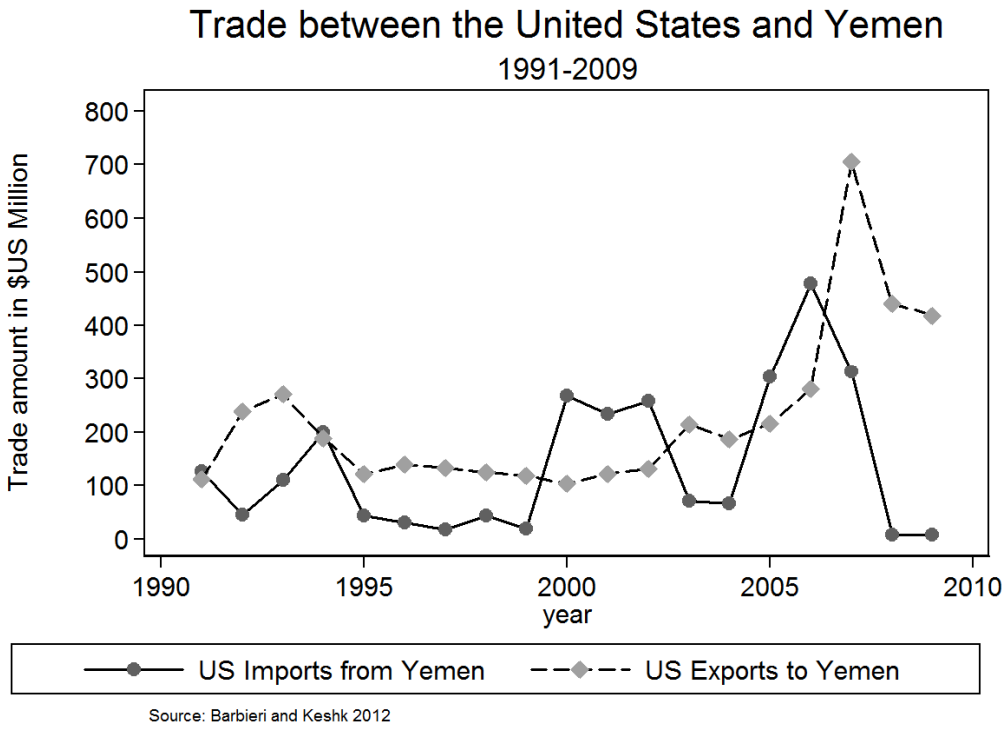


Figure 6.8 - Yemen Arms Network 2000s

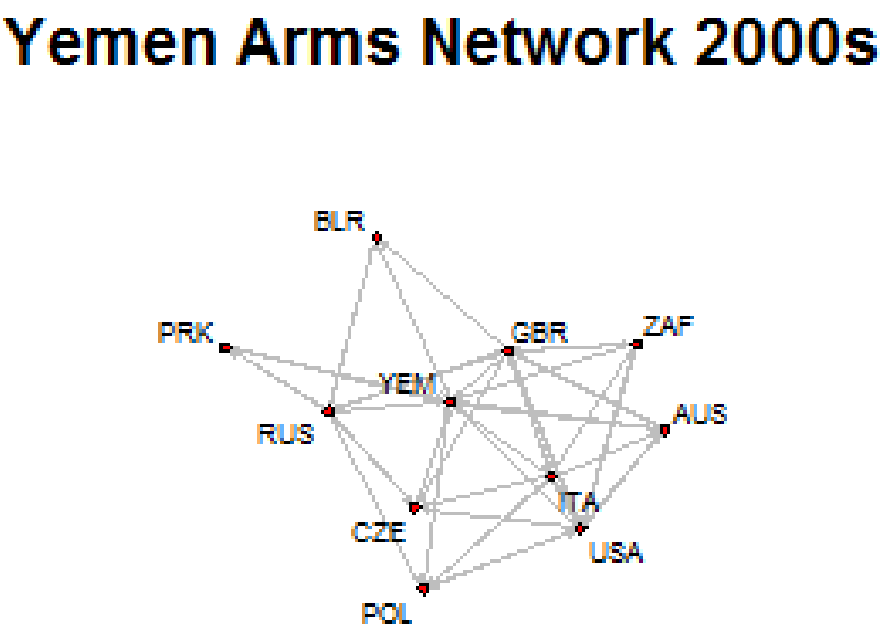


Figure 6.9 - Bangladesh Regime Type

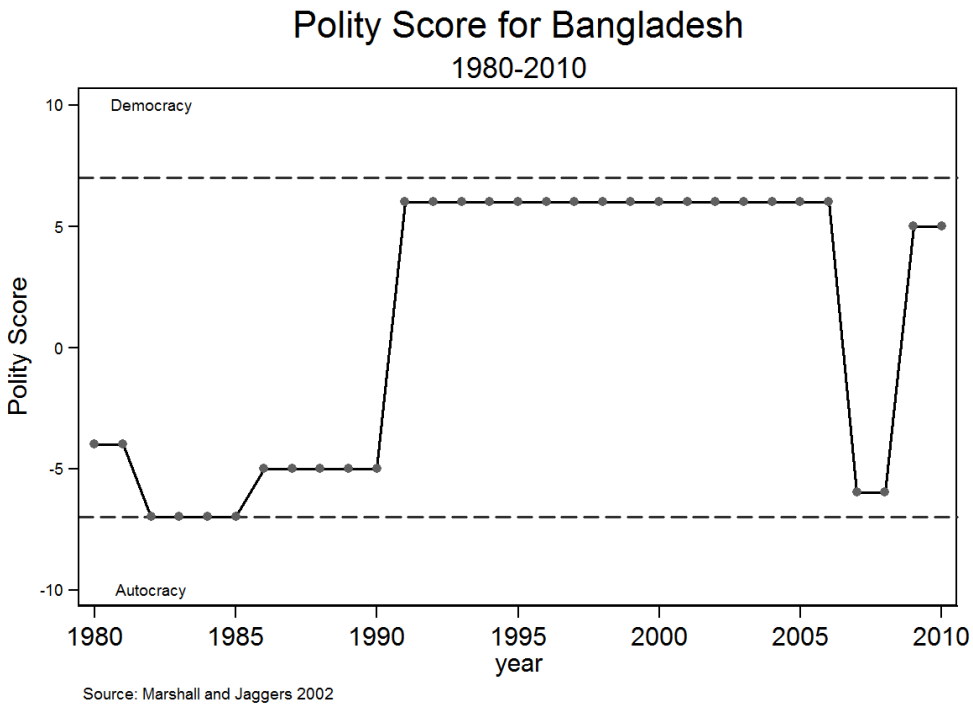


Figure 6.10 - Bangladesh Human Rights

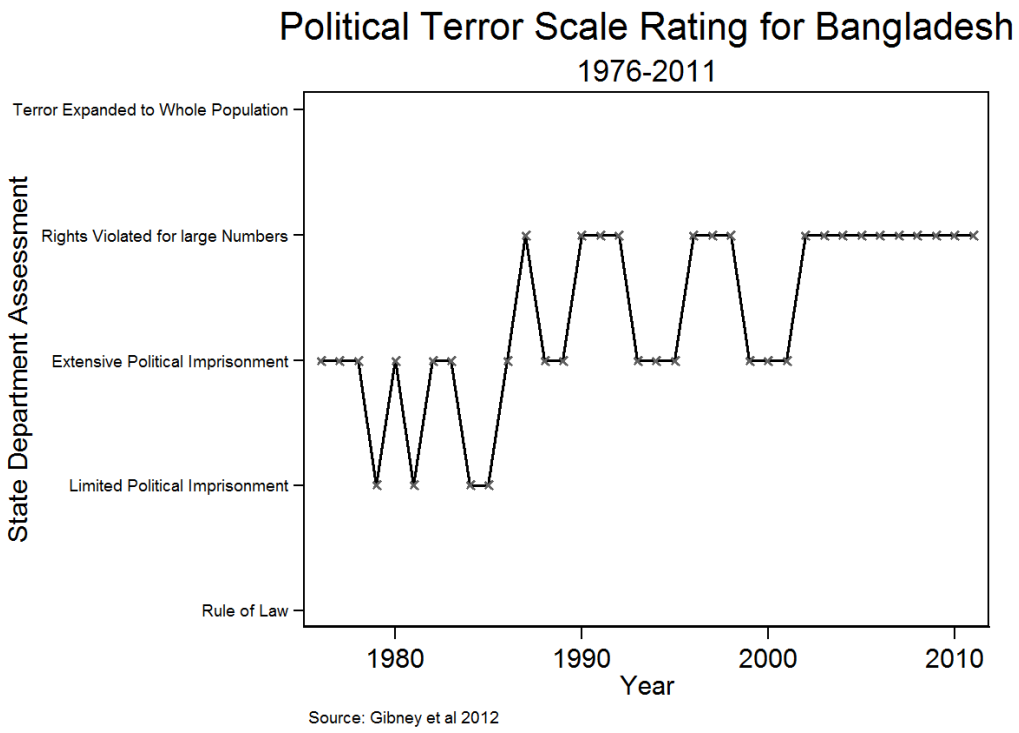
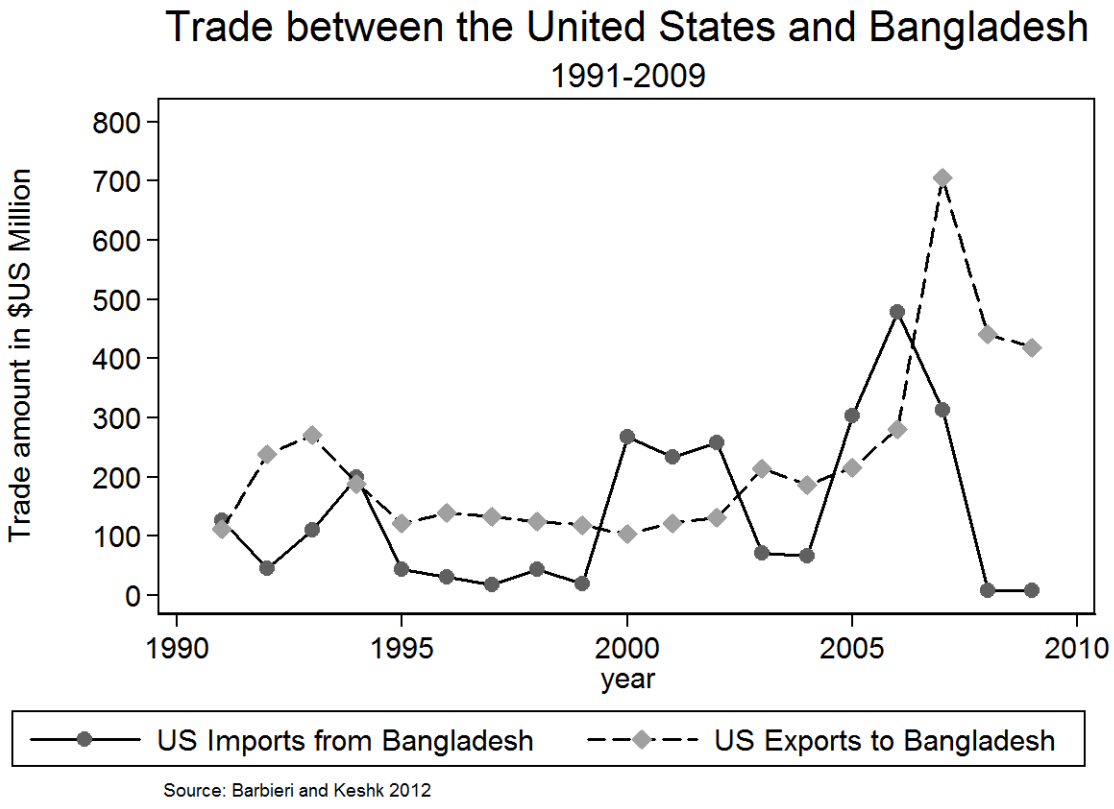
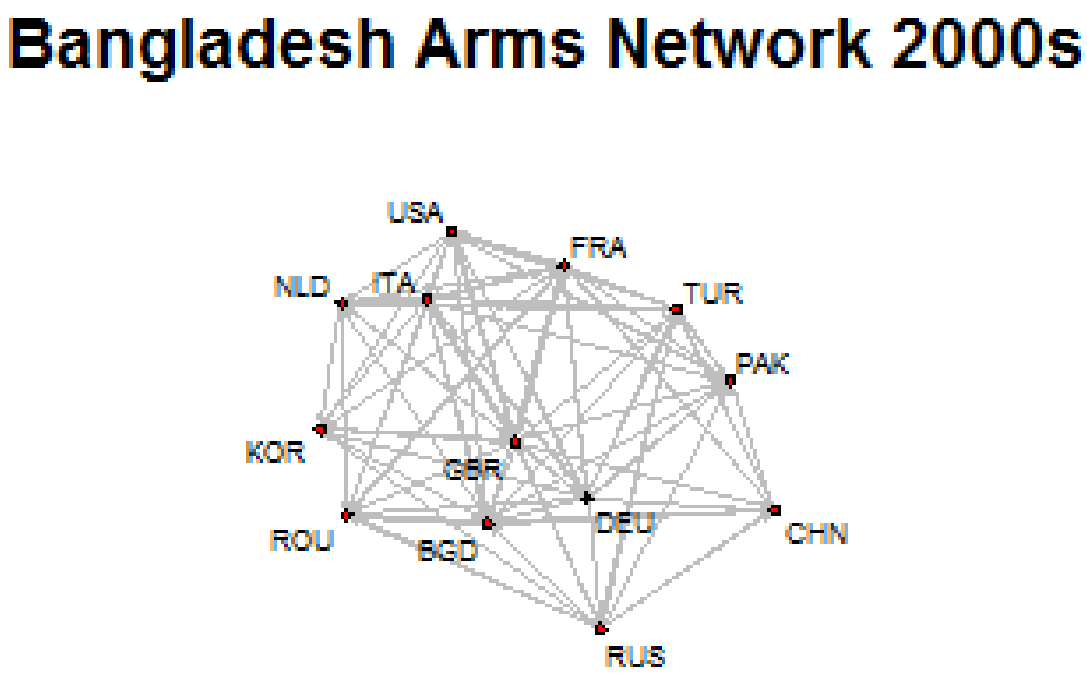


Figure 6.11 - Trade Between the U.S. and Bangladesh



Source: Barbieri and Keshk 2012

Figure 6.12 - Bangladesh Arms Network 2000s



CHAPTER 7 RUSSIAN ARMS SALES DECISION-MAKING IN TURKEY, JORDAN, AND FINLAND

In chapter 5 I outlined the basic rationale behind Russian arms sales – that of making a profit for the state. Rosoboroneksport (ROE) is a firm that is in partnership with the government, whose primary motive is to fill Russian state coffers and to protect the interests of the ruling clans within the Russian political system. In its own mission statement, ROE acknowledges the profit motive: "The official status of the exclusive state intermediary agency gives Rosoboronexport unique opportunities to expand long-term mutually beneficial cooperation with foreign partners, provide guaranteed state support of all export-import operations, and strengthen Russia's leadership in the world arms market" ("Rosoboroneksport Corporate Strategy" 2012).

One of the most powerful groups within the Russian political sphere are the *siloviki* within the power ministries (Ol'ga Kryshtanovskaya and White 2009; Taylor 2007, 2011). The recent scandals in the Ministry of Defense in Russia provide evidence that the heads of these power ministries and corporations are in a position to extract valuable personal resources from these ministries. While the corruption within these industries and the personal profit taking by the ruling elite is an interesting political problem, I do not focus my analysis on it. The primary reason for this is that even amidst this corruption these organizations (such as GAZPROM and Rosoboroneksport) are required to fulfill their state functions. In fact, the corruption of the top officials is one way for Putin to exert control over the "tycoons" within the ruling sphere (Hanson 2011).

The corporate profit motive that is present for ROE is part of Russia's foreign policy. Russia shares this motivation with the United States, even though the corporate nature and advocacy of ROE is structurally different than the Directorate of Defense Trade Controls (DDTC) in the U.S. State Department. The ROE model is more of a combination of the DDTC and the Defense Security Cooperation Agency (DSCA) in the

Department of Defense. The purpose of Rosoboroneksport is to find markets for Russian military goods, but these markets are also meant to foster cooperation with foreign partners. In other words, the purpose of Russian arms policy is to strengthen interstate relations.

This chapter examines cases of apparent arms decision-making in the Russian context. It is a mirror of the previous chapter. The cases of Russian arms decision-making were made using the same criteria as for the U.S. case. The pools of potential cases for each type of decision were chosen by looking at the actual empirical patterns of arms sales between Russia and its client states. The three types of decisions that are examined here are the same as the U.S. case. They are new sales (after 1990), returning customers, and ended relationships. The states for these types of decision-making cases are Turkey[30], Jordan, and Finland respectively.

The U.S. cases presented in the previous chapter showed that there is high-level involvement in the decision-making process regarding the sale of arms. In the case of the U.S. and Estonia, President Bill Clinton was involved in the negotiations that opened up Estonia (along with a group of other countries) to the sale of arms by the United States. In the case of Yemen, decisions regarding defense sales were made in both the DDTC and the DSCA regarding further arms cooperation. This despite political and human rights concerns in that state.

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[30] Turkey was the alternate case for this type. Turkmenistan was the primary case. Upon closer examination, however, I eliminated Turkmenistan as a potential case of this type because of its status as a former Soviet Republic. Arms transfers to Turkmenistan during the Soviet period are not recorded (as they were part of the same country). This historical fact makes treating Turkmenistan as a *new* customer problematic. Turkey is less problematic in this sense.

Type 1 Relationship – Russia Enters the Turkish Arms Market

Russia's relationship with Turkey involves a long history of antagonism and competition over territory, influence, and at times regional supremacy. During the Cold War Turkey found itself firmly on the side of the West. It is a member of NATO, and until the end of the Cold War found its policy interests most closely aligned with the West, and with the United States. The relationship with Russia until the early 1990s remained strained, if not hostile (Aktürk 2006; Sezer 2000). However, the end of the Cold War brought renewed opportunities for these two regionally important states to cooperate. This is particularly true in cases where Turkey's foreign policy goals have been at odds with those of the United States (Hill and Taspinar 2006, 85).

Three key Turkish disagreements with the United States include the handling of the Iraq war in 2003, the U.S. position on the Kurdish problem, and U.S. involvement in the Black Sea region. Both Turkey and Russia are interested in the stability of their borders, and have been critical of a U.S. strategy that favors democratization and regime change over stability (Hill and Taspinar 2006, 82). These areas of policy agreement between the two states are just one part of the complicated equation of Russian Turkish relations. The two states still have numerous disagreements over important issues. Some of these issues are enumerated by Markedonov and Ulchenko (2011). These issues include "ethnopolitical developments", "transportation routes for hydrocarbon energy supplies", "Iran", "Moscow's fears over Pan-Turkic sentiment", the "balance of military forces in the Black Sea", and "Ankara's phobia about Russian arms export policies."

While the above issues are important and potentially politically charged, Markedonov and Ulchenko (2011) note that in many ways, the two states have managed

to depoliticize many of these issues. "Moscow and Ankara are both averse to exploiting separatist movements on the other's soil as a foreign policy weapon", and both have "…developed a common position on the role of non-regional players in the Black Sea" (Markedonov and Ulchenko 2011). Of particular salience to the present study is the assertion that Turkey has "…relaxed its attitude toward Russian arms supplies to the Republic of Cyprus" (Markedonov and Ulchenko 2011).

Scholars of Russian-Turkish relations have differing explanations for the increased cooperativeness of these states' interactions. Markedov and Ulchenko (2011) attribute this rapprochement to Turkey's "…newfound willingness to take advantage of its geographic location and its dependence on foreign energy…" as well as the growing economic ties between the two countries. Turkey's largest foreign trade partner (See Figure 7.3) is Russia, which surpassed Germany in that role in the late 2000s. Turkey is Russia's fourth largest trade partner, and number one foreign travel destination for Russian tourists (Tarasov 2012).

The figures in the appendices of this chapter mirror those in Chapter 6. The first figure, Figure 7.1 shows Turkey's democracy level as measured by Polity (Marshall and Jaggers 2002). Turkey's government has been considered democratic (above 7 on the polity IV scale) since before the collapse of the Soviet Union. Some scholars of Russian foreign policy might argue that there is an argument to made for Russia conscientiously choosing to sell weapons to states that are autocratic as these states share a common interest with Moscow in stemming the tide of democratization (Ambrosio 2009) which is seen as hostile to Russia's ruling regime and to its interest in stability. Turkey does not fit the characteristics of an autocratic state on the outside of the world political system. The fact that Russia may want to support states that are non-democratic against encroachment by western states, does not prohibit the state, and ROE as its agent, from seeking arms deals with democratic states.

Turkey's human rights record (Gibney, Cornett, and Wood 2012) is quite spotty (See Figure 7.2). Unlike the U.S. case, I don't think that there is any real potential veto effect for sales to states with poor human rights records by Russian arms manufacturers through ROE. As was seen in the case of the U.S. and Yemen in Chapter 6, a poor human rights record is not necessarily an insurmountable barrier in the U.S. case either. As was noted, Russia and Turkey are important trade partners with one another, with Russia being the biggest market for Russian goods, and Turkey the 4th largest market for Russian goods (Barbieri and Keshk 2012; Tarasov 2012). The value of goods and the growth in trade can be seen in Figure 7.3 below.

Relations between Turkey and Russia have the potential to be conflictual. That has been the case in the past. However, the trajectory of relations between the two states in the post-Cold War era has been one of cautious cooperation (Kiniklioğlu and Morkva 2007). This cooperation has come in some sensitive areas, including issues of ethnic separatism and security policy in a strategically important area for both states, the Black Sea (Aktürk 2006; Sezer 2000). Turkey is a large arms market. It has the 7th largest armed forces and 4th largest army in the world and is one of the top ten arms importers in the world ("Turkey Military" 2013). Figure 7.4 below shows the arms import network for Turkey in the last decade (2000-2009) and is based on sales data from SIPRI (2011e). Turkey has imported arms from a number of different sources. Many of its arms trade partners are other NATO states, and Turkey's NATO status has been an important aspect of its military trajectory.

The size of Turkey's arms market, its increasing dissatisfaction with U.S. policy in the region, and the other important ties including as a transit route for energy, make Turkey an attractive target for Russian arms sales. During the Cold War, with Turkey fully in the NATO fold, there were no sales of Soviet weapons to the Turkish military. At the dissolution of the Soviet Union, Russia made an arms deal for a number of armored personnel carriers (APCs) and a number of helicopters. These items were meant

for use by the Turkish police, which changed some of the terms of the sale. This had some interesting repercussions recently, which will be discussed further below.

Decision-Making in the Turkey Case

Between 1993 and 1995 Turkey took possession of 114 BTR-80 Armored Personnel carriers (SIPRI 2011f). Turkish police forces also took possession of 19 Mi-8MT helicopters from Russia (SIPRI 2011f). The BTR-80 is an all-purpose armored troop carrier that has been exported by Russia to a number of countries. The BTR-80 is "… intended to carry personnel on the battlefield and provide close fire support. It can also carry out reconnaissance, combat support and patrol missions. It entered service with the Russian army in the late 1980's and has since been used in a number of military conflicts, including UN peacekeeping operations" ("BTR-80 Armored Personnel Carrier" 2000). The Mi-8 is an all-purpose cargo helicopter that can be used in a number of rules. These include troop transport, supply, conducting attacks when armed with rockets or guns, providing close air support functions, performing combat rescue operations, and acting as an artillery observation platform ("Mi-8 HIP" 2000). The sale of both of these weapons systems – both the Armored Personnel Carriers and the helicopters were made at the same time that Turkey and Russia signed an agreement on military and defense cooperation. Turkey was the first NATO member state to sign such an agreement with Russia (Kiniklioğlu and Morkva 2007, 537).

The APCs and helicopters described above were delivered to Turkey for the use of their police. This became a problem in 2003 when Turkey issued a tender in order to repair and upgrade the helicopters it had bought from Russia nearly a decade earlier. A number of firms within Russia (and one from Ukraine) including ROE as well as the firm that originally built the Mi-8 helicopters competed for the repair. The firm "Mi Helicopters" won the tender with the lowest bid. ROE took them to court in Russia,

claiming that the firm didn't have a right originally to sell the helicopters because it violated Russian laws on military-technical cooperation. In addition, ROE accused the firm of engaging in dumping measures.

An additional confounding factor in the case of the Mi-8s is that the Russian government owned a 20 percent stake in the Mi Helicopter firm. The judge in the case ruled in the favor or the Mi Helicopters firm, noting that helicopters were not sold as military equipment, but were sold to the police. This is contrary to sources that claimed that part of the retrofit tender for the helicopters included arming the helicopters with additional machine guns and providing more armor for them ("Turetskii Demarsh: Rosoboroneksport Obvinil 'Vertilyoti Mi' v Nezakonom Predprinimatelstve" 2003). It is inconceivable that ROE would lose this fight in today's climate, but it does show that there is competition within the state for opportunities to profit on the sale of arms.

The sale of these weapons to Turkey's police force in the mid 1990s was followed by a long drought during which Russia did not sell any more weapons to the Turkish military. However, cooperation between the two states continued to grow, and in 2004 Vladimir Putin visited Turkey and signed a number of agreements on further Russian-Turkish cooperation. Putin was the first Russian leader to visit Turkey since Brezhnev in 1972 (Kiniklioğlu and Morkva 2007, 535). The "Joint Declaration on the Deepening of Friendship and Multidimensional Partnership" signed by the two sides during Putin's visit had special provisions for more cooperation through a new bilateral organization: the "Intergovernmental Commission on Military, Technical and Defense Industry Cooperation" (2007, 537).

The next arms sale between Russia and Turkey was for 800 AT-14 Anti-tank missiles with 80 launchers. Delivery of these missiles was slated for 2008-2010 and the contract had an option for more (720) to be added if desired by Turkey (SIPRI 2011f). ROE beat out Raytheon (an American firm) for the contract for these missiles (Kostirev 2010). The two sets of deals made by Turkey for Russian arms are not only widely

spaced – they are for relatively small items and for relatively small sums. The estimated value of the missiles is $60-80 million dollars. Turkey is a large arms importer. In every year since 2000 (with the exception of 2004), Turkey has imported at least $400 million dollars worth of large-scale military equipment (SIPRI 2011e). In many years the amount imported is well above a billion dollars.

This lack of significant cooperation and deepening ties in the military industrial sector has been a source of frustration on the Russian side. Vladimir Putin during his visit to Turkey in 2004 took the time to criticize the Turkish government for backing out of a contract to jointly produce attack helicopters (AFP 2004). This follows the pattern of high level Russian officials being involved in negotiation (and in general simply being aware of) large-scale defense contracts between Russia and partner nations. Putin was personally involved in signing a large defense agreement between India and Russia in 2012 ("India, Russia Sign Defence Deals" 2012).

It is clear from Russia's actions that they would like to become more deeply involved in supplying Turkey with arms. That is the motivating factor behind ROE in general. The purpose of that agency is to find markets for Russian weapons. Turkey is a large market. It is a customer of weapons from a large variety of sources around the world. This diversity of supply is one that should theoretically allow Russia an opening into the market. However, this does not seem to have been the case for any large contract weapons systems – especially aircraft – that can generate revenue for Russian arms firms over a long period of time and help to fund research and development of more advanced systems (Hartley and Martin 2003). The helicopter deal that fell through in 2004 came after a similar deal between Turkey and the United States fell apart in 2001. That deal was unfavorable for Turkey because of the restrictions put on the use and technological specifications of the helicopters which were imposed on Turkey by the U.S. (Korotchenko 2001).

Russian officials have accused Turkey's government of using threats of Russian arms supply to get better deals from its normal European and U.S. suppliers (Kiniklioğlu and Morkva 2007, 537). This is a good bargaining tactic on the part of Turkey, but only if it can continue to convince its normal suppliers that the threat of purchasing weapons from Russia is credible. Russia helps Turkey to make this point by remaining eager to open up such a partnership. Turkey, on the other hand, also has a potential difficulty in proving the credibility of the threat that it will give its business to ROE. This includes unresolved potential conflicts over influence within the Caucuses region. Russia has continued to support Armenia in its conflict with Azerbaijan while Turkey has supported Azerbaijan (Sezer 2000, 70–72).

Russian commentators see the sale of the anti-tank missiles to Turkey by ROE to be a positive step in the right direction for Russian interests in the region. Guryev (2008) characterizes Turkey as a "…capacious market for its [Russia's] arms and technology" and that Turkey is " ...a convenient buyer of these arms" and that Russia is the "…source of exclusive military technology that the west does not possess." Such cooperation between Moscow and Turkey is an indication that the purchase of such weapons – and for the terms given – is worth upsetting other allies, including the United States, which opposed the purchase of these weapons by Turkey (Guryev 2008).

This Russia-Turkey case illustrates the complicated nature of the arms sale problems. Russia clearly has a desire to sell weapons, and has pushed for greater cooperation with Turkey on a number of fronts in order to facilitate arms sales. This is despite the fact that there are significant areas of potential conflict between the two states. Turkey and Russia are both regionally important players, whose interests do not coincide, and yet Russia sees arms sales as being more important to its interests than the *potential* for conflict later down the road. This may reflect a certain degree of confidence in its strength by Russia, but also may be a reflection of a reality of conflict and power between states that is elegantly captured by Gray's(1993) book title "Weapons don't Make War."

The Turkish case is also interesting in that Turkey's membership in NATO makes it harder to purchase weapons from Russia. NATO's members are obligated to meet certain standards of interoperability for their equipment (NATO 2006). This does not mean that member states have to have identical arsenals, but it does have the practical effect of limiting choice for NATO member states as they are making arms purchasing decisions. This is especially true of larger weapons systems (tanks, other armor, aircraft) that have communications equipment in common, and which may have platforms for other weapons and communications built in. These NATO requirements mean that Russia will be at a potential disadvantage in many arms tenders, and is one of the reasons that ROE has been unsuccessful in making any really large deals with the Turkish government for weapons procurement.

Type 2 Decisions – Russian Arms Delivery to Jordan

The relationship between Jordan and the Soviet Union was characterized by periods of antagonism and antipathy from both sides. The relationship between the two states was difficult for a number of reasons, primary among them, though, was Soviet assistance to groups that were fighting against the Jordanian monarchy. Diplomatic relations between the two states were not fully established until the fall of 1963. Once these relations were established they did withstand significant periods of pressure including the 1967 Arab Israeli War and Jordan's 1970-71 war against the PLO (Kreutz 2007, 40).

King Hussein of Jordan visited Moscow in 1976. Jordan was known to be an ally of the West, which is one of the reasons why relations between Jordan and the Soviet Union were restrained. 1976 was a period of détente, and King Hussein had established his credentials as a Western ally before making the trip. One of the primary reasons for King Hussein's visit to Moscow was to obtain weapons from the Soviets. The Soviet

Union was the main supplier of weapons to states in the Middle East (Kinsella and Tillema 1995; SIPRI 1975) and King Hussein wanted to have access to relatively inexpensive weapons that were of good quality (Kreutz 2007, 40).

The collapse of the Soviet Union changed the dynamics of the Middle East. Russia supported Jordanian-Israeli rapprochement, but the changed conditions in Moscow brought new problems to the relationship. These problems were those of Jordan's debt to the Soviet Union, and the second was Russia's military actions against Chechen separatists. The issue of debt was resolved relatively quickly in 1992. It took until 1994 for Russia and Jordan to come to an agreement on a statement regarding Jordan's stance on the issue. This was due to historical ties between Jordan and the Circassian community (of which Chechnya is a part) and the settlement of members of this group on the territory of modern Jordan during the Ottoman Empire. Once this issue had been resolved diplomatically, there weren't any more serious issues between the two states (Kreutz 2007, 41).

Decision-Making in the Jordan Case

Jordan's King Abdullah has made a number of visits to Moscow and has met with President Putin on those occasions. Jordan wishes to ensure that Russia continues to have an active presence in the region, and as a counterbalance to U.S.-supported Israel. Kreutz (2007, 42) reports that King Abdullah made the statement that "Jordan and its neighbors consider the [Russian] role to be the voice of rightful reason in dealing with the region." However, Jordan has also continued to strengthen its ties to Western states and institutions, and has made itself a valuable player in many international actors' relations within the region (Ryan 2004, 44–45)The two states share very little in terms of economic ties with one another, but Russia is increasing its presence in Jordan's natural gas fields.

Regime type and human rights records are not seen to be a potential roadblock to Russian arms sales to a particular state. There exists a possibility that authoritarian regimes may seek Russian arms because they will not have access to comparable arms from the U.S.. The same may be true of human rights records. Figures 7.5 and 7.6 show this information for Jordan. However, in the case of Jordan (as was the case in Turkey) the state has a strong relationship with the United States, including a great deal of arms sales. Figure 7.8 shows the arms network of Jordan's arms suppliers in the past decade. Jordan, like Turkey (and like most states) has a wide-range of arms suppliers (R. Smith, Humm, and Fontanel 1985, 243). Figure 7.7 shows the trade relationship between Russia and Jordan, which is quite minimal.

Jordan has a relatively large military for a state of its size. It has a volunteer army that is 90,000 personnel strong. The overall military (including the air force) is 104,000. Jordan spends nearly 8% of its GDP on its military, which puts it at number 3 out of 145 states that report military spending data. The military comprises 6% of the labor force, which makes the percentage of population involved in the military 6th out of 168 states reporting military personnel numbers ("Jordan Military" 2013). Jordan is the 32nd largest arms importer (out of 85 reported states). The military situation in Jordan, then, is one which may offer a strong potential market for Russian arms in the future.

The Soviet Union and Jordan inked arms trade deals in the late 1970s and the arms trade continued between the two states throughout the 1980s. These arms sales between the two states then ended for over a decade during the 1990s. One of the probable reasons for this interruption in arms sales is the issue of Soviet debt. The Soviet Union (and the U.S. during the Cold War) used arms transfers as a foreign policy tool and often provided these arms for favorable (and often dischargeable) debt terms (R. Smith, Humm, and Fontanel 1985, 243). Such credit terms were not available to Jordan (or other states) during the 1990s. They are less of a motivation today as well since ROE has been tasked with a commercial profit mission.

The question of arms sales to Jordan, then, seems to be one of securing terms for weapons systems that are needed/desired by the Jordanian state at a desirable rate. Since the collapse of the Soviet Union in 1991 Jordan has made deals for three different missile systems. The first deal was made in 2000 and was for a modest 100 Igla SA-18 Surface to air missiles (SAM) (SIPRI 2011d). The next order was for 1800 SA-24 Surface to Air missiles to be delivered in 2009-2011. The SA-24 missiles are more capable than the older SA-18. These particular SAMs are meant to be launched from light vehicles using the Dzhigit launcher. These launchers can be mounted on a number of different types of vehicles and provide the primary launch platform for the SA-24 missiles. The third missile type that Russia is selling to Jordan is the AT-14 anti-tank missile. The tender is for 2000 to be delivered between 2009 and 2010 and includes 200 launchers.

As was the case for Turkey, the sale of individual missiles is good for ROE in the sense that it is helping to fulfill the profit imperative that drives the organization's actions. However, in order to fulfill its other role of protecting Russian arms producing firms by finding outlets for their products, such small sales are not ideal. In the case of Jordan there is some evidence that ROE is working to establish more lucrative and more long-term deals. During a meeting of Vladimir Putin (who at the time was President) and Jordan's King Abdullah, the two signed a "Contract between the United Industrial Corporation Oboronprom and the King Abdullah II Design and Development Bureau for the Sale of Ka-226 Helicopters" (President of Russia 2007). Oboronprom is a wholly owned subsidiary of ROE that serves as a holding company for a number of large companies including the Russian Helicopters Company and the United Engine-Building Company ("Corporation" 2013, "Historic Notes" 2013). Oboronprom was created as a management tool for ROE and the Russian government to streamline the arms industry within the state and to help identify and weed out inefficient firms (Blank 2007, 49).

Further details of the agreement between the two states reveal that the deal is that this will provide for the Ka-226 helicopters to be assembled in Jordan. This will also

include a service and sales center and a pilot training program on site in the region (Oboronprom 2006). This is the type of deal that will continue to generate sales and revenues for the Russian state. This contract for the sale of arms between Russia and Jordan has not yet been entered into the SIPRI data, which may mean that the sale has not yet occurred. That the agreement between the firm and the State of Jordan was made during an official state visit by the president of Russia is indicative of the high priority that arms sales have at the top levels of the Russian government.

Type 3 Decisions – Ending Russian Arms Trade to Finland

Russian-Finnish relations have been complicated by centuries-long interactions between these two neighboring states (Kangas 2011). Finland was part of the Russian empire, and although it fought the Soviets to a draw during the 1940 war, the Soviet state still won all of its demands against its smaller Nordic neighbor. Soviet troops withdrew from Finland during Khrushchev's early wave of détente in the 1950s, when troops were withdrawn from both Finland and Austria (Petro and Rubinstein 1997, 288).

Relations between the Soviet Union and Finland were organized under a treaty between the two states. "The Treaty of Friendship, Cooperation, and Mutual Assistance" of 1948 (FCMA) called for military cooperation between the two states if Germany or any of its allies attempted to attack the Soviet Union through Finnish territory. The treaty called for negotiated (rather than automatic) assistance in the case of an attack, therefore safeguarded Finnish sovereignty (Solsten and Meditz 1988). The treaty was renewed in 1955, 1970, and 1983, and provided a framework under which Finland was able to pursue democratic and capitalistic policies without seeming to be a threat to the Soviet state. Donaldson and Nogee (2009, 262) characterize Finnish-Soviet relations as an "anxious neutrality" in which Finland "…tilt[ed] far enough toward Moscow in its regional and domestic policies to escape incorporation into the Soviet sphere." Holsti (1964) argued

that Soviet-Finnish relations were primarily based on Russian perceptions of its own security, and on Finland's willingness to conform to, and accommodate Moscow's interests in formulating its own foreign policy and response to Soviet "image" of Finland.

In the post-Soviet era Finland has continued to maintain good relations with Russia. Finland has maintained its policy of caution and engagement with Russia and was the first European state with which Russia signed a bilateral treaty after the collapse of the Soviet Union (Donaldson and Nogee 2009, 262). The signing of this treaty was seen at the time as being an important, but uncertain, attempt by Finland to "…maintain mutually acceptable relations with its eastern neighbor, no matter what kind of government exists in Moscow" (Lukacs 1992, 62).

Finland is the oldest EU state on Russia's borders, but has still not joined NATO, unlike the majority of European states (Giles and Eskola 2009, 1). Finland has, however, changed its defense forces and arranged them to be NATO compatible, while not taking the final step to fully seek NATO membership. The state does participate in NATO's Partnership for Peace program.

The decision as to whether or not Finland should join NATO is heavily influenced by the Finnish relationship with Russia. There has also been a great deal of change within Finnish society and a re-writing of Finland's Cold War relationship with Russia. Browning (Browning 2002, 48) describes the shift in how the relationship between the two states has been characterized within Finland in the post-Cold War environment.

> These "…narratives not only reappraise Cold War Finnish foreign policy, but also reappraise Cold War notions of the Soviet Union as a great power predominantly concerned with its legitimate security interests. From being a trustworthy friend, the Soviet Union /Russia is now understood as being a subversive enemy and consequently such critiques characterize the Cold War Finnish foreign policy of good neighborly relations with the neighbor to the East has having been a total aberration and betrayal of the `Western' Finnish self" (Browning 2002, 48).

While Finland has continued to have peaceful relations, including energy relations, with Russia (unlike many of Russia's other neighbors such as Lithuania,

Belarus, Ukraine, and Georgia), there is a strong desire within the Finnish government to be prepared for possible future developments that could change the relationship between the two countries (Giles and Eskola 2009, 2–3). Finland is concerned with Russian ambition, and there is a deepening sense that Nordic security, which had been led by Sweden, is beginning to slip. Finland and Sweden have deepened their military cooperation, and that cooperation has been directed, in some ways, pointedly at Russia. A joint statement between Finland and Sweden's defense ministers states that:

> Sweden and Finland intend to deepen their defence and security-policy cooperation. We are doing this in a situation where Russia has raised its level of foreign policy ambition. For Sweden and Finland, this involves improving our capacity to act jointly. We will concentrate on deeper cooperation on military training, exercises, and *material procurement*. Our countries will also seek cooperation with NATO, in order to share in the overview obtained by these countries' joint military air surveillance. (As quoted in Giles and Eskola 2009, 20, emphasis added.)

I examine the relationship between Finland and Russia in this chapter because Finland is a case in which arms sales between Russia and another state have ceased. The brief overview of relations between the two states given above highlights some of the difficulties that can affect the arms transfer relationship between the two states. The remainder of this case will proceed along similar lines as the cases that preceded it.

Finland is a firmly democratic state (Marshall and Jaggers 2002). It is also a state with an excellent human rights record (Gibney, Cornett, and Wood 2012). Finland's record in these areas is plotted visually in Figures 7.9 and 7.10. There is no apparent reason that Finland would prefer Russian weapons to those from another state, or be excluded from purchasing arms from another state due to pressure stemming from its regime type or human rights record as might be the case with the Turkey and Jordan.

Finland's trade with Russia (see Figure 7.11) is pretty robust. Russian exports to Finland reached $15 billion dollars in 2008 and Finnish exports to Russia reached nearly $6 billion that same year (Barbieri and Keshk 2012; Barbieri, Pollins, and Keshk 2009). The trade relationship is one that might help explain arms sales from an economic

perspective. Russia in 2005 was a close second to Germany as Finland's largest import trade partner at 14.2% of Finland's imports (Keinast 2006). These imports were for energy resources, metal products and metals, chemicals, and timber. Finnish exports to Russia were primarily for machinery and vehicles, but also paper and paper products (Keinast 2006).

Finland has a relatively small military. It has a total of 32,000 active military personnel and spends just 2% of its GDP on military expenditures ("Finland Military" 2013). The state also supports a large contingent of active reserve personnel 357,000 in 2011("Finland Military Strength" 2012). In the past Finland has used concepts of territorial defense and general conscription to fill its defense plans, but now military planners are looking at ways to use a smaller force that is better equipped (Giles and Eskola 2009, 1–2). The country is now planning on shrinking its military size, while at the same time increasing in its defense spending.

Decision-Making in the Finland Case

Figure 7.12 shows Finland's arms network in the 2000s. Notably absent from Finland's network is Russia. This has not always been the case, and this is the reason why Finland was chosen for the Type 3 case – the arms trade between the two states has been absent for the last decade, a decade in which Finland has moved closer to NATO without actually joining the alliance. What did Finland's arms relationship with Russia look like during the Soviet period?

The arms relationship between the two states was very robust between the two states. Beginning in 1960 and through the beginning of the 1990s (including the first two years after the collapse of the Soviet Union) Finland purchased a large amount of arms from the Soviet Union. The weapons systems delivered to Finland from Russia included helicopters (Mi-1), tanks (T-55/PT-76), ships and anti-ship missiles, artillery pieces,

armored personnel carriers (BTR-60PB), fighter aircraft (MiG-21), and air radar systems and more (SIPRI 2011c). While Finland also purchased weapons from other states at this time, much of its arsenal was coming from Russia.

In the case of Finland, there is very little indication from either Finland or from Russia about why this arms relationship ended. The assumptions in this chapter about Russia's motivation for arms transfers, i.e. a profit motive, suggest that any change in the pattern would be a decision made by Finland. There is some indication that this may have been the case from the Arms Trade Register (SIPRI 2011c). The last deliveries of Russian arms in 1996 consisted of equipment that had been ordered from the Soviet Union, but which was not delivered until a few years later.

Finland's military has shifted strategy. It has made cuts in personnel and changes in its acquisition priorities (Giles and Eskola 2009, 2). Finland, unlike many other European countries has actually increased its military acquisition budget (Giles and Eskola 2009, 3). One factor that may be keeping Finland from making deals with Russia is that there still a sense of uneasiness about Russia. A 2009 Finnish Government Security and Defense Policy Report stated that "When it comes to Finland's security environment, the most important questions relate to Russia's political and economic stability and to the evolution of its international relations" (as quoted by Giles and Eskola 2009, 3). It is logical that Finland be wary of its neighbor's potential instability, both as a producer of weapons and as a potential adversary.

Concluding Thoughts on Russian Arms Sales

The fact that Russia remains the second largest arms exporter in the world is an accomplishment in its own right. Putin's reorganization of the arms export business under the umbrella of Rosoboroneksport has helped Russia to regain the market share it lost to the United States in the 1990s (see Chapter 3). Putin's model of state interests

utilizes assets from core sectors in the economy to enrich the state. ROE fulfills a vital mission in Russia's state system because it provides an outlet for Russian arms and brings in cash to the Kremlin's coffers. It also provides a focus for the domestic arms industry, which employs large numbers of people – a holdover from the Soviet mobilization economy (Gaddy 1996).

Arms exports also help to prop up the "security economy" that involves both the production of weapons and the military itself. There is some evidence that the focus on arms exports may become a problem for the state. Defense firms are reaching capacity limits, quality issues plague Russian products, and Russia's two main customers are diversifying their arms import portfolio (Cooper 2010, 153–4). Cooper (2010, 168) in his assessment of the future of the Russian defense industry wonders whether "…in an era of globalization and economic liberalism, vast state, or quasi-state, corporate structures can be an engine of successful modernization, innovation and economic viability."

As recently as 2012, Russia's president has been involved in negotiating, or at least advocating for large arms deals. We saw this pattern in the case of arms sales to Turkey and Jordan in the case studies in this chapter. As long as Russia's preference regarding foreign policy is to export to protect critical sectors and fill the state coffers, the decision-making behavior of ROE will not change. That is, it will continue to make whatever deals it can with whomever it can.

Figure 7.1 - Turkey Regime Type

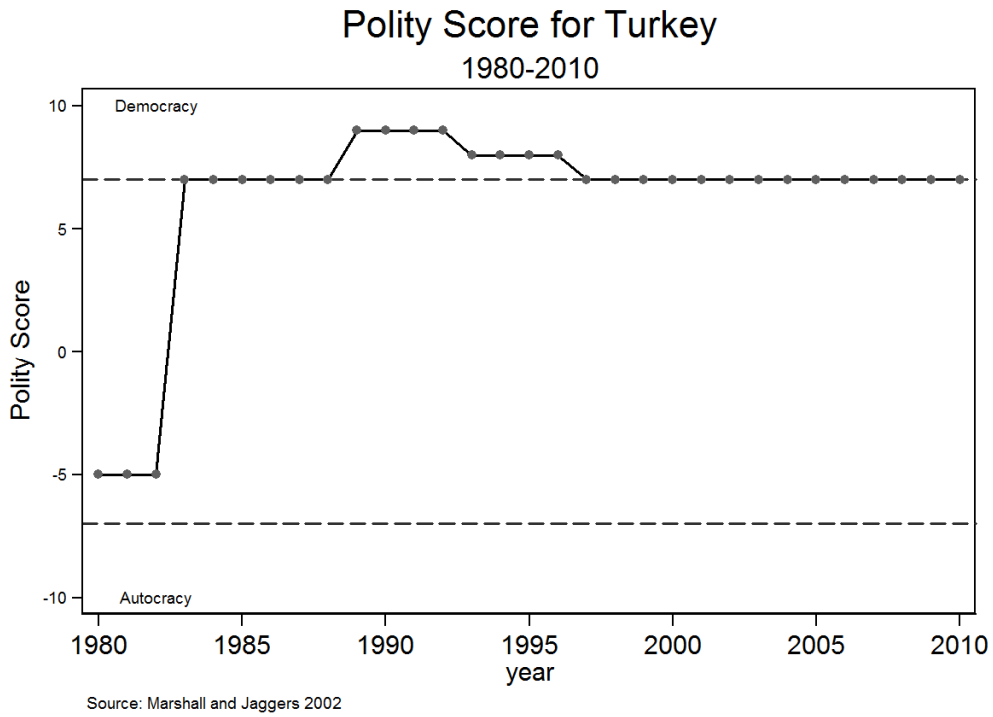


Figure 7.2 - Turkey Human Rights

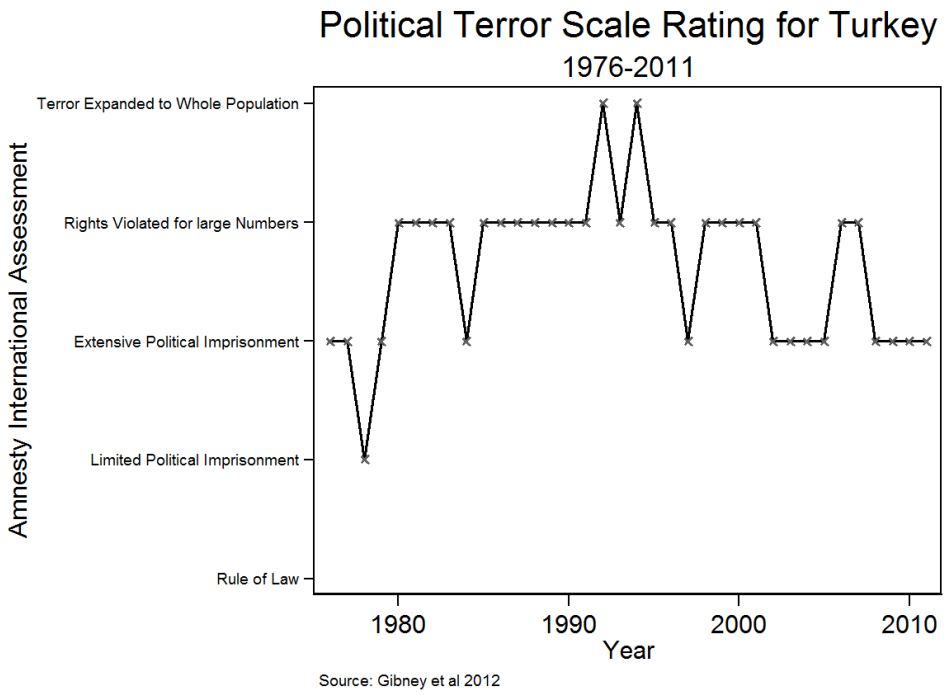


Figure 7.3 - Trade Between Russia and Turkey

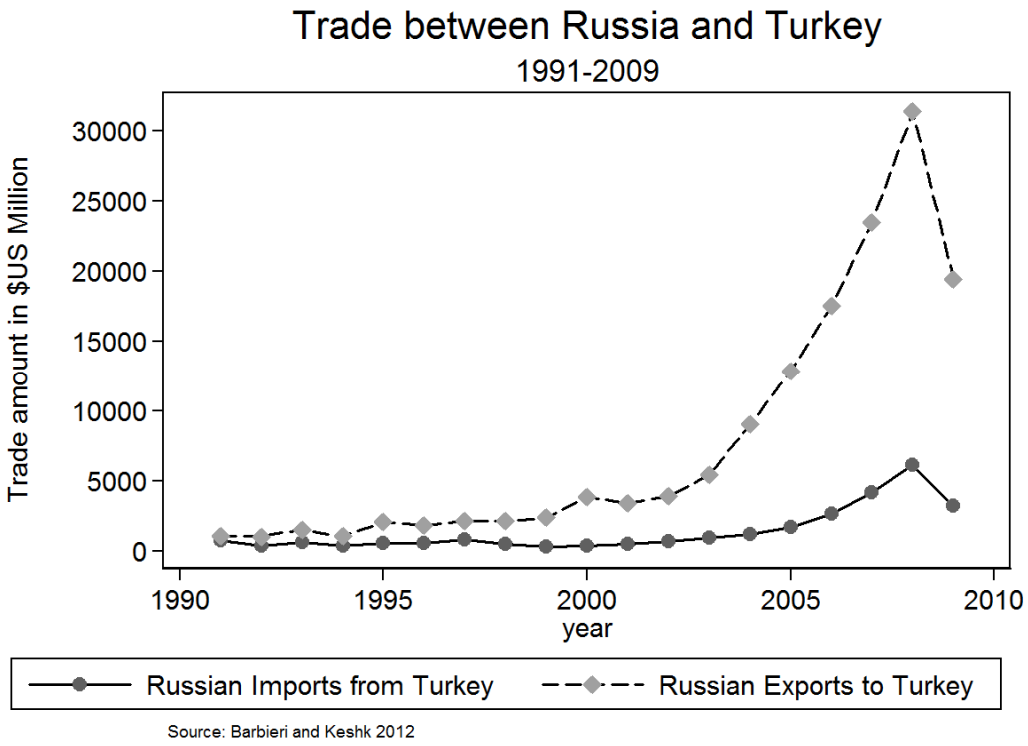


Figure 7.4 - Turkey Arms Network 2000s

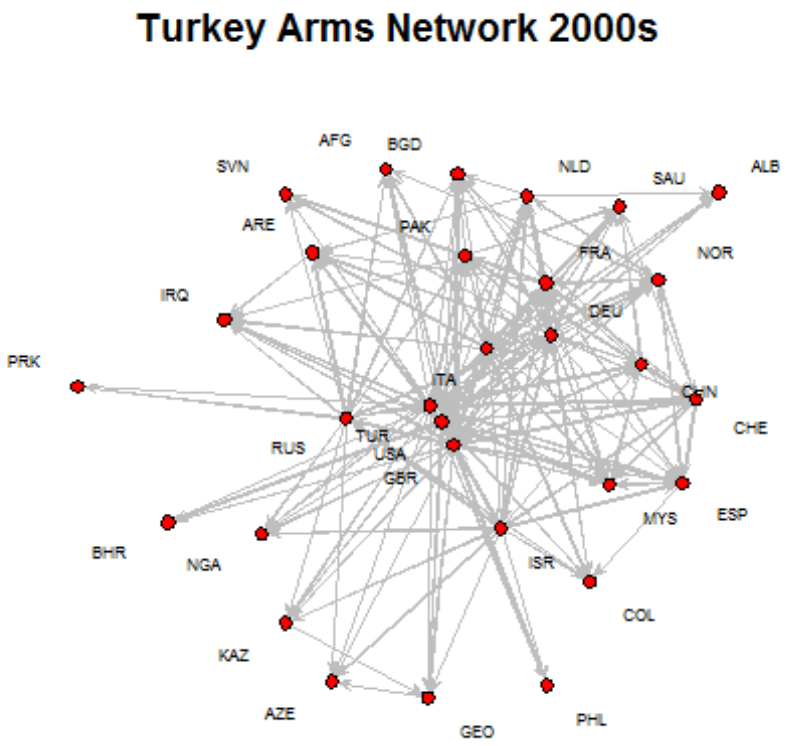


Figure 7.5 - Jordan Regime Type

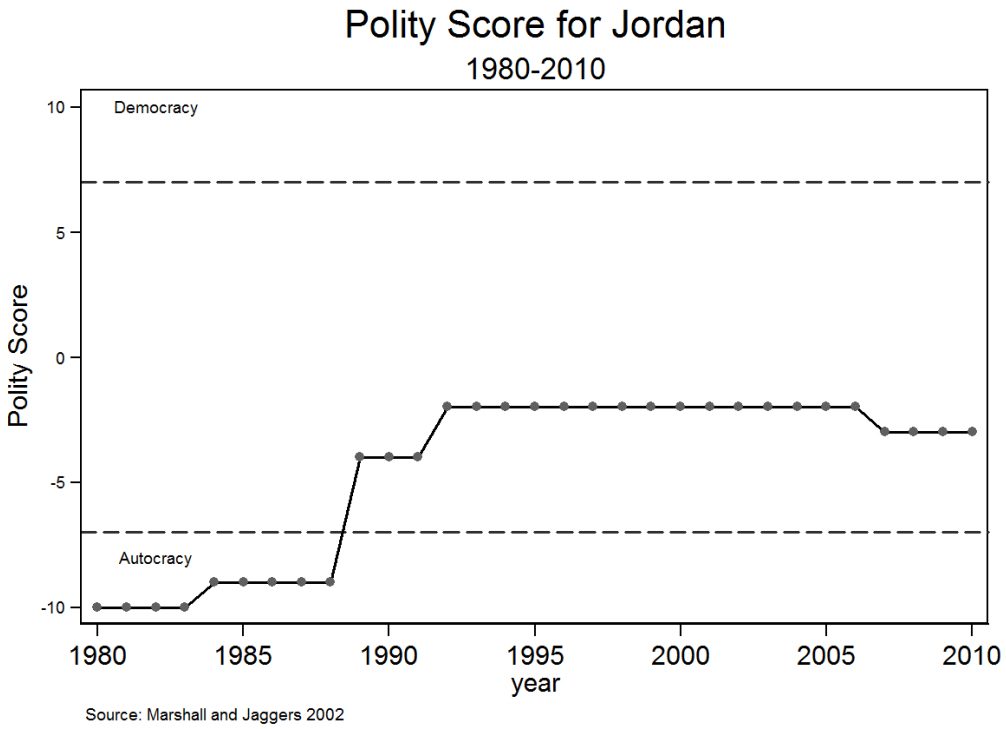


Figure 7.6 - Jordan Human Rights

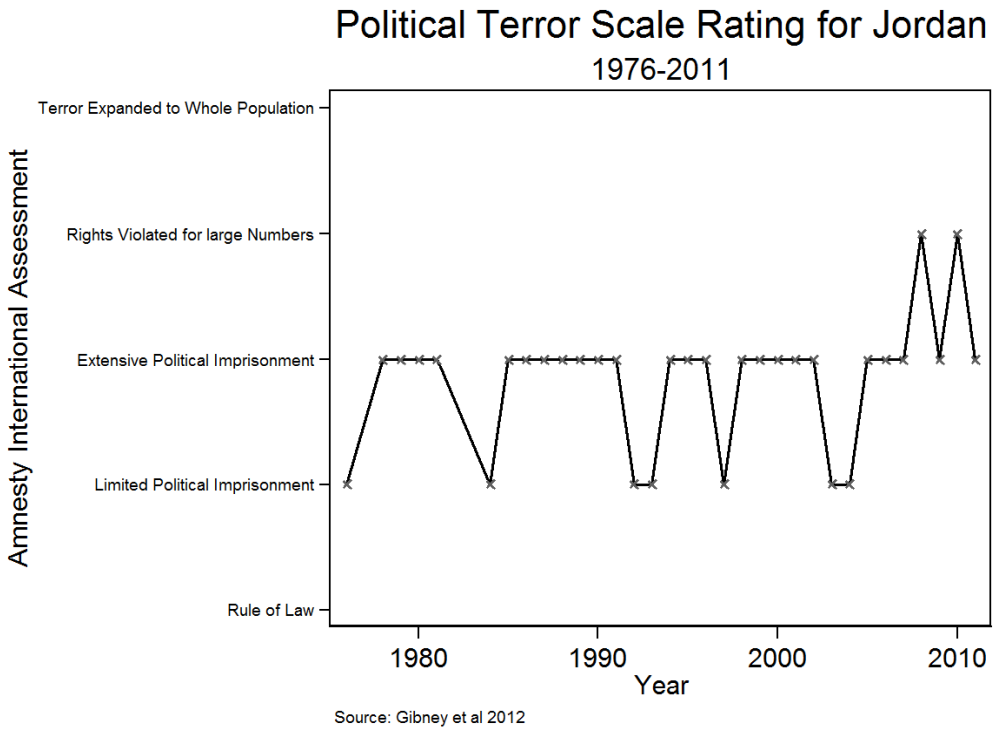


Figure 7.7 - Trade Between Russia and Jordan

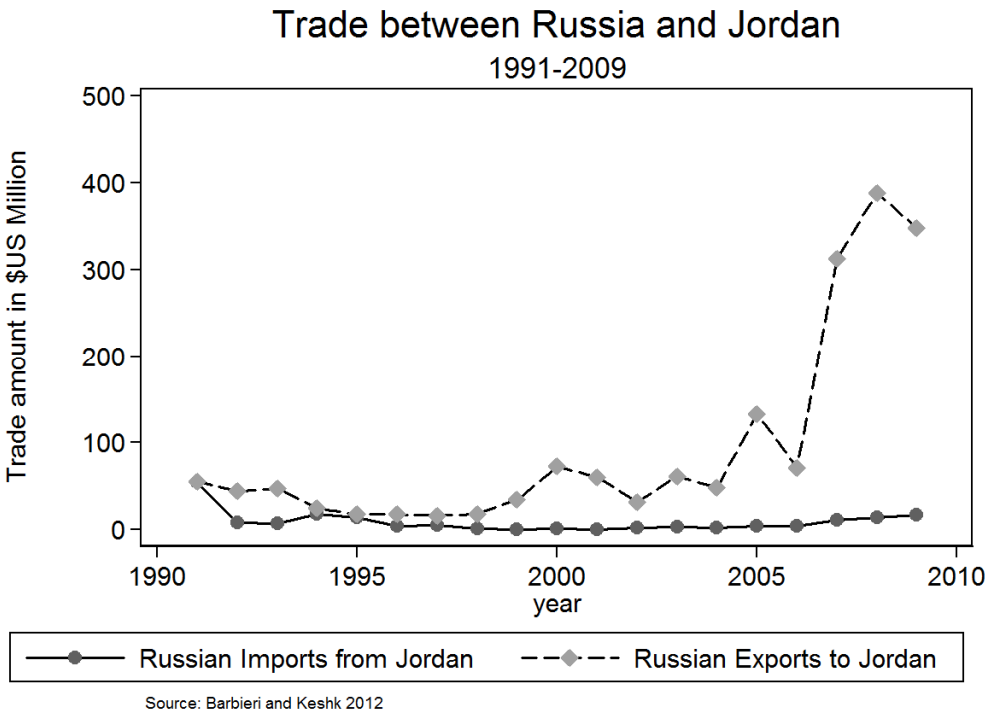


Figure 7.8 - Jordan Arms Network 2000s

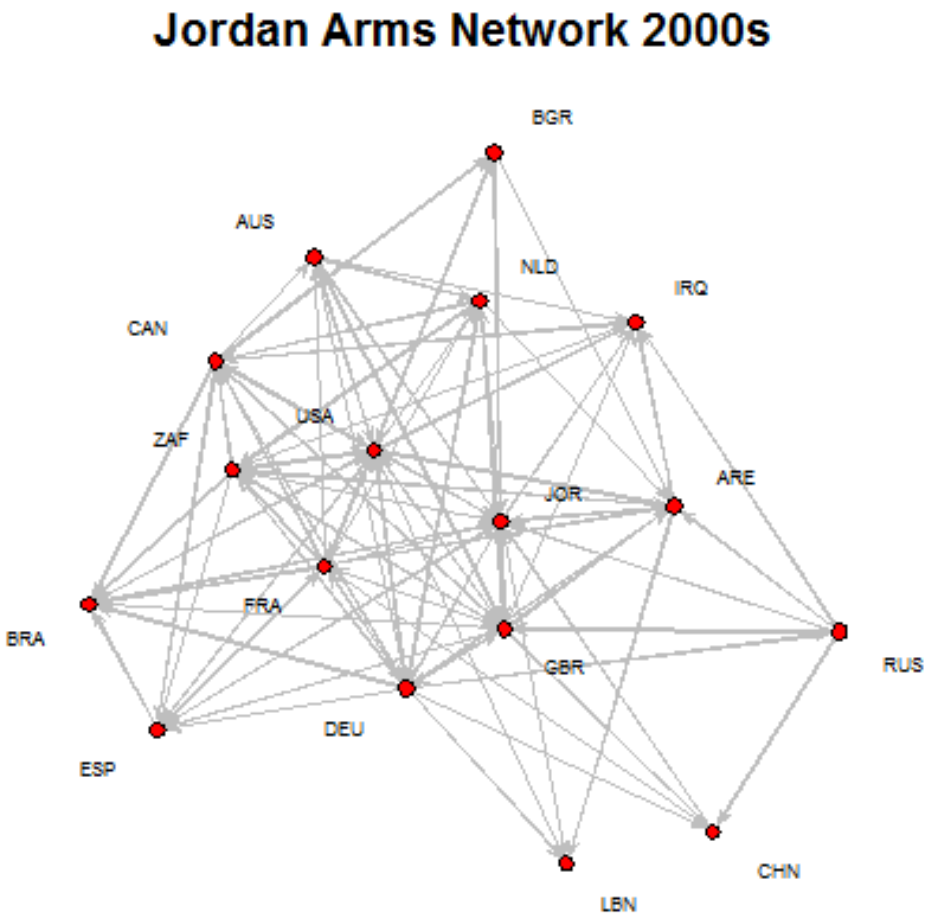


Figure 7.9 - Finland Regime Type

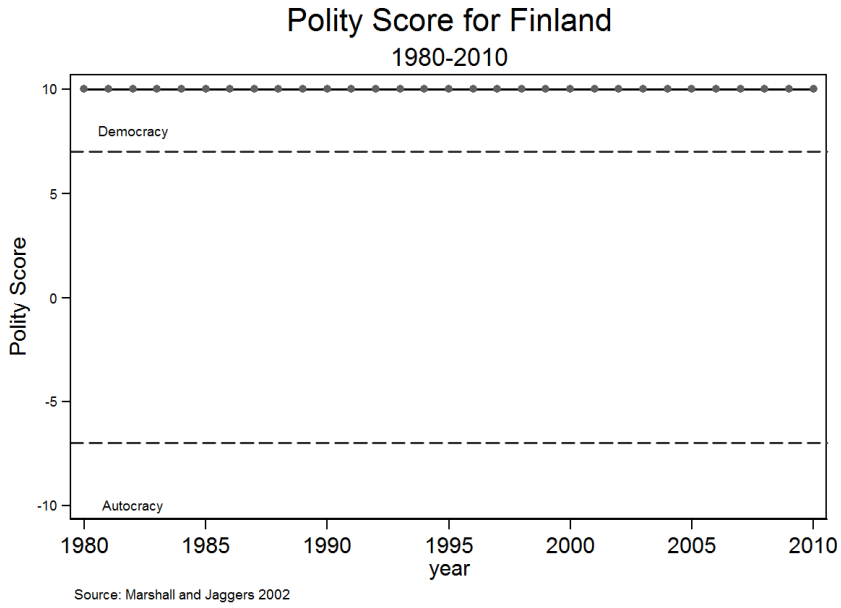


Figure 7.10 - Finland Human Rights

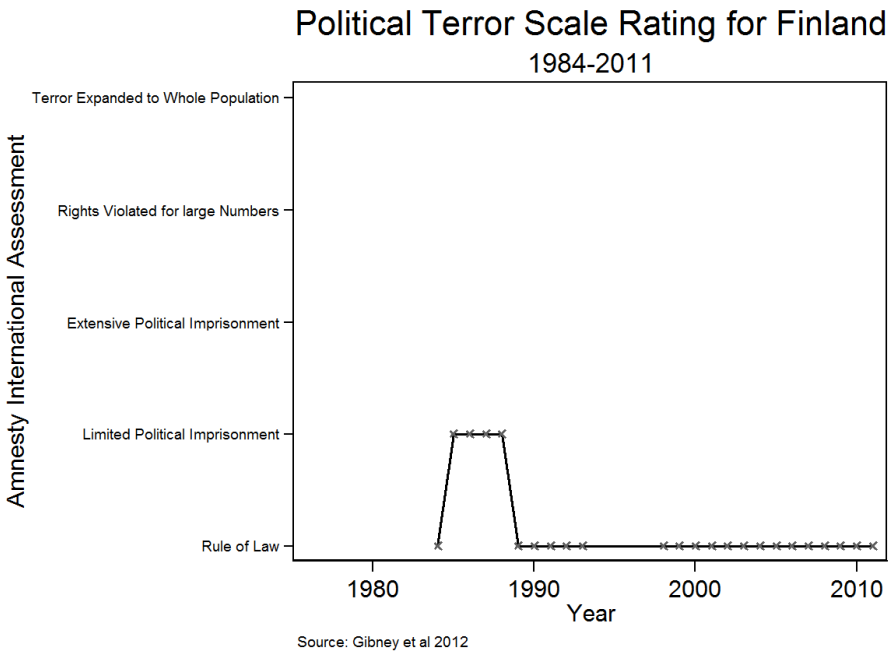
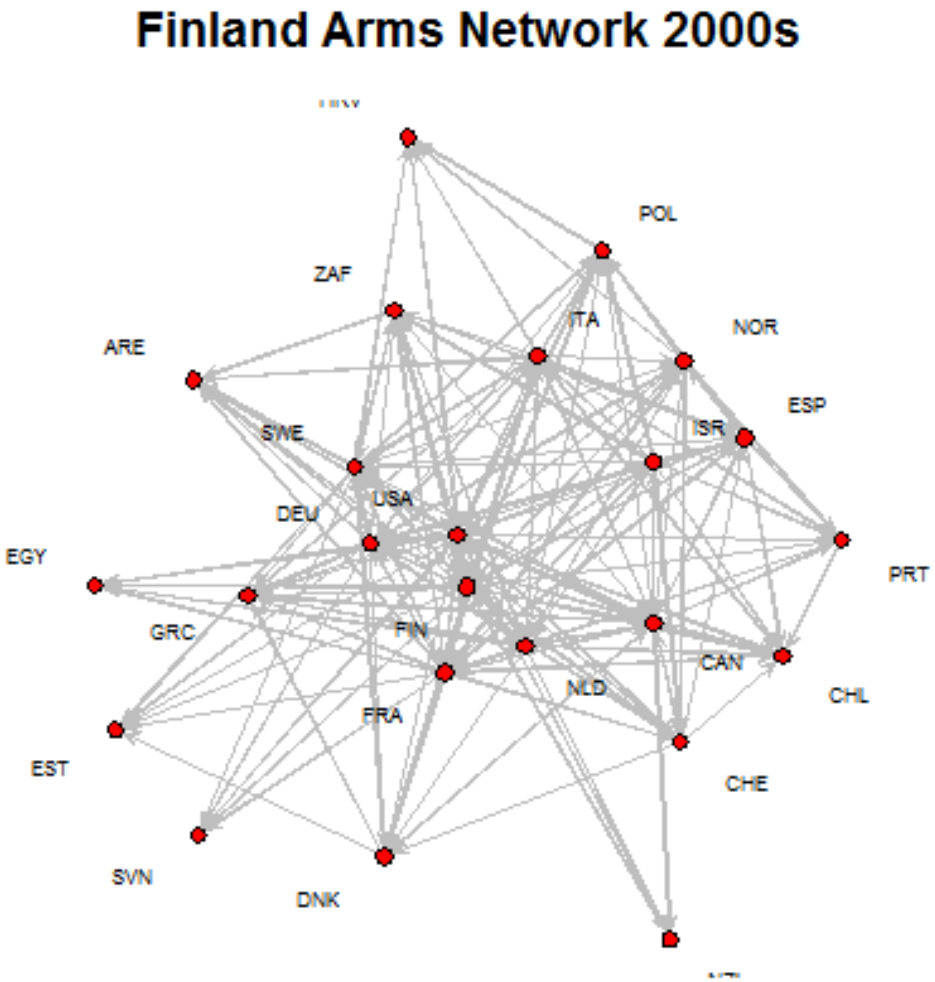


Figure 7.11 - Trade Between Russia and Finland

Figure 7.12 - Finland Arms Network 2000s



CHAPTER 8 – CONCLUDING THOUGHTS

Now that I have examined arms sales in the context of state-level characteristics, the formation of the international network of arms sales, and at the sub-state level of decision making, what conclusions can be drawn? This study began with a straightforward premise. Arms sales matter for states. It was motivated by a question about the foreign policy behavior of Russia in Syria as that country descended further and further into civil war. Those questions were as follows: *How are arms export choices made within a state? What affect do arms transfers have on other foreign policy outcomes? What affect do other foreign policy choices have on a state's arms export policies?*

Comparative foreign policy analysis is difficult because of the inherently complex interplay of behavior at all of the levels of analysis – both within and between states. Future research will build on this interplay and hopefully improve the framework of levels of analysis that provided the scaffolding for the research done here. This project demonstrates the utility of using network methodology as a tool to bridge levels of analysis, which is an important contribution to work on foreign policy analysis. I have also documented the preference ordering for U.S. Arms sales and how it can work in practice to produce arms sales outcomes. That is an important finding for both foreign policy analysis and for the literature on arms transfers.

Insights from the State and System Level Analyses

When I began this research I expected to be able to answer all three of the questions above. What I have done in this project is to focus primarily on the first question. In order to answer that first question, I developed a framework based on the principles of foreign policy analysis and with a conscious effort to tie the different levels of analysis together. The first task was to examine the state-level characteristics within

the two arms exporting states in the international system that have the ability to use arms transfers as a consistent policy tool. The United States and Russia, while divergent after the end of the Cold War, still share some remarkable similarities in their patterns of military size, military spending, energy consumption, and iron and steel production.

The fact that Russia has continued to be in the same class as the United States as an arms exporter is explained by the continued military build-up of both China and India. Russia's overall sales are very dependent on large orders from those two states. In fact in the two decades since the end of the Cold War, the average level of power (as measured by the CINC score) of Russia's customers has increased in both absolute and relative terms. This power disparity in Russia's customers (see Figure 3.7) can be accounted for by the rise of China and India. It is also an indication that U.S. arms customers are also a part of the U.S. security hierarchy (Lake 2009), while Russia's customers are regional powers that are developing their own security and power capabilities. There is also a significant difference in the way that U.S. and Russian arms customers spend money on their militaries, with U.S. customers spending more per soldier than Russian customers. Also, unsurprisingly, the level of democracy for Russia's arms customers was, on average, quite a bit lower than the average level of democracy in U.S. arms customers.

After examining the state-level characteristics of Russia and the U.S, and developing a profile of their "mean customer," I analyzed the formation of the overall pattern (or network) of arms trade relations in each decade from 1950 through the end of 2010. This holistic approach to understanding the pattern of relations is based on social network analysis methodology and used a relatively new (to political science, especially) method to attempt to answer questions about the factors that led to the patterns we see. This social network approach is a way to try to more explicitly tie individual (or state) level behaviors to systemic outcomes. I was also able to tie state-level explanations to the formation of the arms trade network by including state-level variables in the ERGM analysis of each decade's network formation.

Perhaps the most surprising finding of this analysis of network formation was how poorly the state-level characteristics performed in predicting the formation of the world arms trade network. I had to drop military spending from the model because it prevented the models from converging in most of the decades. After dropping military spending I was left with military alliances and regime type as state-level explanations for the formation of the arms networks. Both of these characteristics, and especially regime type, have been found to have an effect on state behavior. In this model of the arms network formation, however, neither of these factors attains statistical significance in any decade. Other factors, and especially the structure of certain types of triadic relations, consistently predict the formation of the network.

The use of the ERGM model allowed me to test the interaction of state and system characteristics that have not been easily combined into a single analysis in past work, or which has done so without really accounting for the complex dependencies of the system, especially relations outside of the dyad.

Insights from the Case Studies

Even with a better understanding of what state-level and interaction (network) factors led over time to the arms network that we have today, we still don't have a good theory about what drives arms sales within a state. The two chapters on arms sales from Russia and the United States opened up the black box of the state. In chapter 5 I described the bureaucratic, or implementation, arms of the U.S. and Russian arms export policy. In the U.S. case I borrowed Krasner's (1978) logic of national interest to derive a preference ordering.

This preference ordering, combined with a standard operating procedure (Allison 1969) decision-making style within the Defense Security Cooperation Agency (DSCA) for selling arms to foreign militaries, suggested that U.S. arms sales are in a kind of set

and forget mode. Once a decision is made to sell arms to a state, the decision remains to keep selling arms to that state. The best way to try to change a decision is to reframe or redefine the sale of arms in terms of national security (either positively or negatively) in order to allow other factors to be considered.

The case of U.S. arms sales to Estonia show that these matters are important at the top levels of the state. Estonia was part of a larger push by President Clinton to develop and strengthen ties with the states of "new Europe." He was involved in negotiating NATO partnerships as well as opening these states to U.S. arms exports. Estonia did not become a large-scale arms customer of the United States as a result of this new status, but it did become a customer, and it did later join NATO.

In the case U.S. arms sales to Yemen I did not find much evidence of direct involvement of either presidential or congressional pressure to end arms sales to Yemen, despite its poor human rights record and non-democratic regime. The top preference for arms sales is to use them to further U.S. security. The ongoing war on terror and the importance of Yemen to that effort seems to have overridden any other potential objections. This decision-making in Yemen appears to have taken place at a lower level than that of the President.

Decision-making in the Russian case is even more straightforward than that of the U.S. The default position is "Yes" and that position will only be turned to "No" if Russia is compelled. The difference between the Russian and U.S. decision-making is that in Russia top-level officials (for the past 13 years, Putin) are involved in negotiating major arms deals between the state and potential customers. In Russia, unlike the United States, the sale of arms is seen as a vital state function. The state not only defaults to the yes position, the state apparatus is geared toward finding new customers, cultivating new relationships, and consequently selling more arms. The most recent (as of the date of writing) arms sale negotiated by Rosoboroneksport with Bangladesh is an example of the Russian state working together to make arms deals. Bangladesh agreed to purchase 24

trainer fighter aircraft with the help of a $1 billion dollar line of credit extended to them by the Kremlin (RIA Novisti 2013).

The Russian case studies also revealed the difficulty involved in making arms deals with other states. The Russian side has been trying to make significant deals with the Turkish government on arms sales for the past decade. Thus far Russia has only supplied a small fraction of Turkey's arms imports, and those were for surface to air missiles rather than large-scale aircraft or armor deals. Turkey was the first NATO state to sign an arms deal with Russia, but it also appears that the equipment requirements for NATO are a difficult barrier for Russian arms manufacturers to overcome. A study that examines only the preference ordering of the exporting states (Russia and the United States in this dissertation) runs the risk of making bad inferences.

A similar case can be made for Russian arms sales to Finland. In the Finnish case, the Soviet Union supplied weapons to Finland. The Russian government by the logic of decision-making outlined here would like to continue that sales relationship. All sales are favorable to the state. However, the Finnish government has made a turn toward NATO, and has begun to shift its military doctrine. The relationship between Russia and Finland is also complicated by the long history and shared border of the states.

Directions for Future Research

The purpose of the case studies was to determine how and under what circumstances decision-making on arms sales take place in the primary exporting states. Previous literature has essentially established the economic imperative for mid-level arms exporting states such as the UK and France to encourage arms exports as a way to protect jobs and keep the arms industry viable (Anderton 1995; Hartley and Martin 2003; R. Smith, Humm, and Fontanel 1985). I chose Russia and the United States as cases

because their arms industries are strong enough - and domestic demand is high enough - to relieve some of the pressure to export. However, Russia proved to have taken this economic imperative to a different conclusion: that Russia has a comparative advantage in arms production and should encourage the sale of arms as a way to improve the state's economy. Additionally, the arms industry is tied directly to the state coffers, so it is a source of revenue directly to the state. This is a different model than that of the U.S. military industrial complex.

Future research should examine the ways that this arms selling directive from the state affects foreign policy decisions by the state. This is one of the original motivating questions of the research project. Now that the mechanism and background of Russian arms sales are better known and situated in the broader context of international relations and foreign policy, this question can be addressed more thoroughly in future studies.

Another area that would benefit from further analysis is the work in Chapter 4 on the world arms transfer network. I self-consciously focused on the ERGM model – the formation of the overall network – at the expense of more traditional network analysis measures. This was another case of sacrificing depth for breadth. Some of the findings from the ERGM, especially the role that triadic relations play in the formation of this particular network, indicate that there is a lot of potential work left to do with the network itself.

There will always be more work to do to advance our understanding of all aspects of international relations. Individual projects must end. And this one does here.

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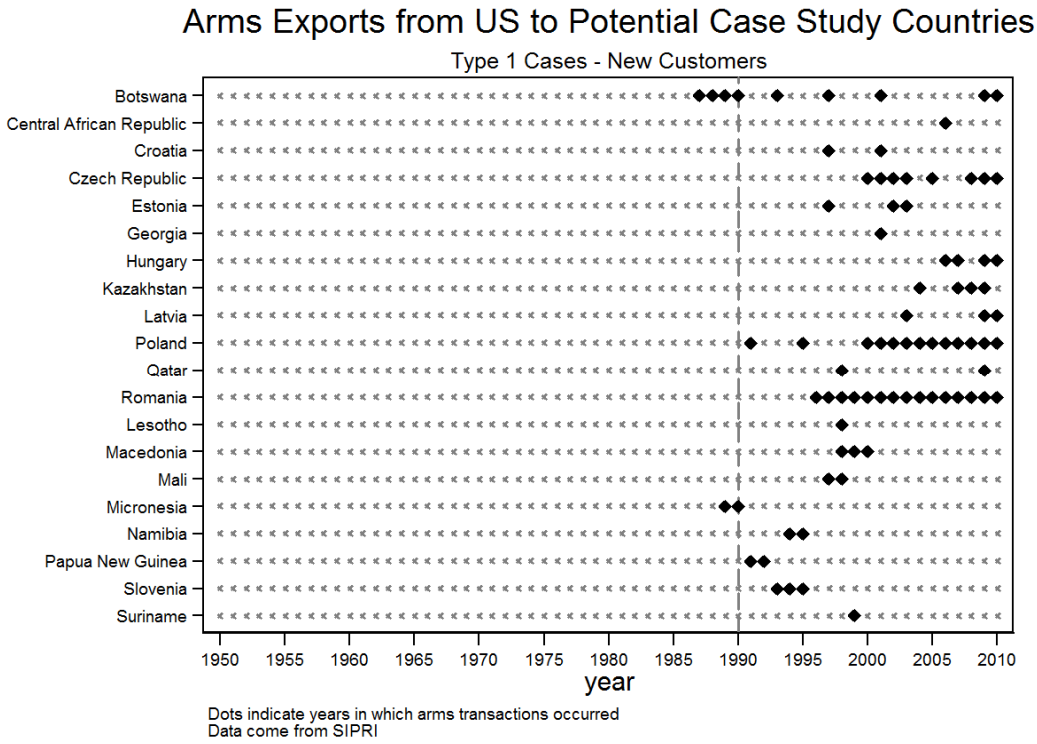
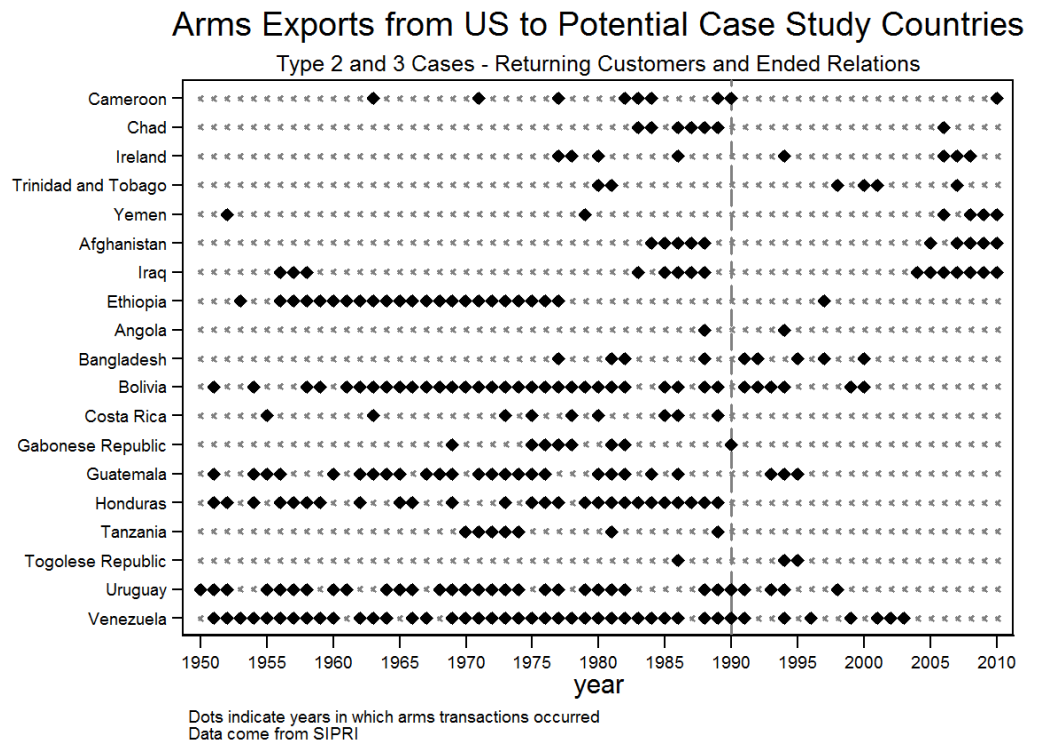
APPENDIX – CASE SELECTION

This appendix contains the full list of potential cases from which Table 5.1 is derived. Following the country potential list are the graphs of arms sales which were used to classify each potential case found on the list above it. The data for the graphs comes from SIPRI (2011e), and were made using STATA.

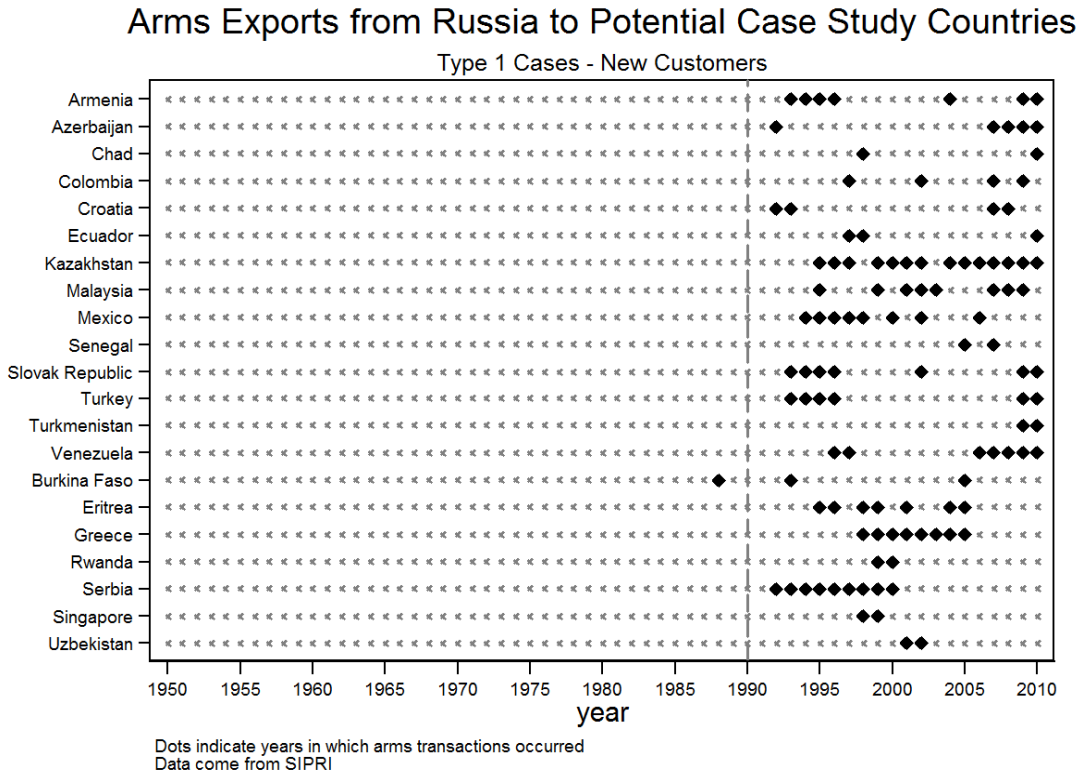
List of Potential US Cases			
State	Type1	Type2	Details
Botswana	1	0	Sales begin in late 1980s (steady)
Central African Republic	1	0	Sale in 2005 (1 year)
Croatia	1	0	Sales begin in 1997 (2 total sales, last in 2001)
Czech Republic	1	0	Sales begin in 2000 (steady after)
Estonia	1	0	Sales begin in mid 1990s (3 total sales)
Georgia	1	0	Sale in 2001 (1 year)
Hungary	1	0	Sales begin in 2006 (4 total sales)
Kazakhstan	1	0	Sales begin in 2004 (4 total sales)
Latvia	1	0	Sales begin in 2003 (3 total sales)
Poland	1	0	Sales begin in 1990 (steady after 2000)
Qatar	1	0	Sales begin in 1998 (2 total sales, 2nd in 2009)
Romania	1	0	Sales begin in 1996 (steady after)
Lesotho	1	3	Sale in 1998 (1 year)
Macedonia	1	3	Sales begin in 1998 (3 years - no sales after)
Mali	1	3	Sales begin in 1996 (2 years - no sales after)
Micronesia	1	3	Sales begin in 1989 (2 years - no sales after)
Namibia	1	3	Sales begin in 1994 (2 years - no sales after)
Papua New Guinea	1	3	Sales begin in 1991 (2 years - no sales after)
Slovenia	1	3	Sales begin in 1994 (3 years - no sales after)
Suriname	1	3	Sales begin in 1999 (1 year - no sales after)
Cameroon	2	0	Ended in 1990 resumed in 2010 (1 year)
Chad	2	0	Sales in 1980s resumed in 2005 (1 year)
Ireland	2	0	Sales resume in 2006 (3 years in a row after sporadic)
Trinidad and Tobago	2	0	Resumed in 1997 (4 sales, scattered - last prior in 1981)
Yemen	2	0	Resumed in 2006 (steady - last prior sale in 1979)
Afghanistan	2	1	Steady since 2005 (also 1980s to Mujahedeen)
Iraq	2	1	Sales resume in 2003 (some in 1980s and 1950s)
Ethiopia	2	3	Resumed in 1997 (1 year only)
Angola	3	0	No Sales after 1995 (2 total sales)
Bangladesh	3	0	No sales after 2000 (steady prior)
Bolivia	3	0	No sales after 2000 (steady prior)
Costa Rica	3	0	Last sale in 1989 (steady prior)
Gabonese Republic	3	0	No sales after 1990
Guatemala	3	0	No sales after 1994 (steady prior)
Honduras	3	0	No sales after 1989
Tanzania	3	0	Last sale in 1989 (sporadic in prior decade)
Togolese Republic	3	0	Last sale in 1995 (minimal prior sales)
Uruguay	3	0	Last sale in 1998 (steady prior)
Venezuela	3	0	Last sale in 2003 (steady prior)

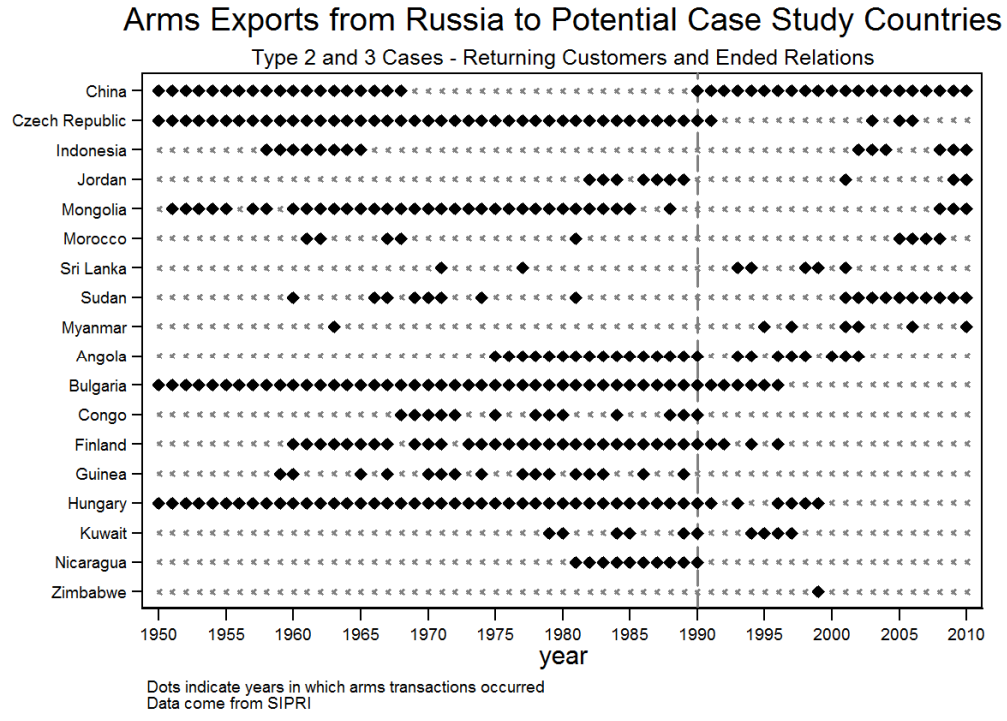

Arms Exports from US to Potential Case Study Countries
Type 1 Cases - New Customers
Botswana
Central African Republic
Croatia
Czech Republic
Estonia
Georgia
Hungary
Kazakhstan
Latvia
Poland
Qatar
Romania
Lesotho
Macedonia
Mali
Micronesia
Namibia
Papua New Guinea
Slovenia
Suriname
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
year
Dots indicate years in which arms transactions occurred
Data come from SIPRI


Arms Exports from US to Potential Case Study Countries
Type 2 and 3 Cases - Returning Customers and Ended Relations
Cameroon
Chad
Ireland
Trinidad and Tobago
Yemen
Afghanistan
Iraq
Ethiopia
Angola
Bangladesh
Bolivia
Costa Rica
Gabonese Republic
Guatemala
Honduras
Tanzania
Togolese Republic
Uruguay
Venezuela
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
year
Dots indicate years in which arms transactions occurred
Data come from SIPRI

List of Potential Russian Cases

State	Type1	Type2	Details
Armenia	1	0	Sales begin in 1993 (7 total sales)
Azerbaijan	1	0	Sales begin in 1991, but steady after 2006
Chad	1	0	Sales begin in 1998 (2 total sales)
Colombia	1	0	Sales begin in 1997 (4 total sales)
Croatia	1	0	Sales begin in 1992 (4 total sales)
Ecuador	1	0	Sales begin in 1997 (3 total sales - last sale in 2010)
Kazakhstan	1	0	Sales begin in 1995 (steady)
Malaysia	1	0	Sales begin in 1995 (steady - last sale in 2009)
Mexico	1	0	Sales begin in 1994 (steady - last sale in 2006)
Senegal	1	0	Sales begin in 2005 (2 total sales - last sale in 2007)
Slovak Republic	1	0	Sales begin in 1993 (7 total sales - last sale in 2010)
Turkey	1	0	Sales begin in 1993 (6 total sales - last sale in 2010)
Turkmenistan	1	0	Sales begin in 2009 (2 total sales - last sale in 2010)
Venezuela	1	0	Sales begin in 1996 (7 total sales - last sale in 2010)
Burkina Faso	1	2	Sales resume in 1993 (1 sale prior in 1988, 3 total sales)
Eritrea	1	3	Sales begin in 1995 (7 total sales - last sale in 2005)
Greece	1	3	Sales begin in 1998 (8 total sales - last sale in 2005)
Rwanda	1	3	Sales begin in 1999 (2 total sales - last sale in 2000)
Serbia	1	3	Sales begin in 1992 (9 total sales - last sale in 2000)
Singapore	1	3	Sales begin in 1998 (2 total sales - last sale in 1999)
Uzbekistan	1	3	Sales begin in 2001 (2 total sales - last sale in 2002)
China	2	0	Sales resume in 1990 (Steady - Prior last sale in 1968)
Czech Republic	2	0	Sales resume in 2003 (steady sales prior to 1990)
Indonesia	2	0	Sales resume in 2002 (steady - prior last sale in 1965)
Jordan	2	0	Sales resume in 1995 (3 sales - prior last sale in 1989)
Mongolia	2	0	Sales resume in 2008 (steady - prior steady sales end in 1988)
Morocco	2	0	Sales resume in 2005 (inconsisten prior - last sale in 1981)
Sri Lanka	2	0	Sales resumed in 1993 (steady - prior steady sales end in 1977)
Sudan	2	0	Sales resumed in 2001 (steady - prior steady sales end in 1981)
Myanmar	2	1	Sales resume in 1995 (steady - prior 1 sale in 1963)
Angola	3	0	Last sale in 2002 (steady prior sales)
Bulgaria	3	0	Last sale in 1996 (steady prior sales)
Congo	3	0	Last sale in 1990 (steady prior sales)
Finland	3	0	Last sale in 1996 (steady prior sales)
Guinea	3	0	Last sale in 1989 (steady prior sales)
Hungary	3	0	Last sale in 1999 (steady prior sales)
Kuwait	3	0	Last sale in 1997 (steady prior sales)
Nicaragua	3	0	Last sale in 1990 (steady prior sales)
Zimbabwe	3	0	Steady sales in 1980s (last sale in 1984)


Arms Exports from Russia to Potential Case Study Countries
Type 1 Cases - New Customers
Armenia
Azerbaijan
Chad
Colombia
Croatia
Ecuador
Kazakhstan
Malaysia
Mexico
Senegal
Slovak Republic
Turkey
Turkmenistan
Venezuela
Burkina Faso
Eritrea
Greece
Rwanda
Serbia
Singapore
Uzbekistan
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
year
Dots indicate years in which arms transactions occurred
Data come from SIPRI


Arms Exports from Russia to Potential Case Study Countries
Type 2 and 3 Cases - Returning Customers and Ended Relations
China
Czech Republic
Indonesia
Jordan
Mongolia
Morocco
Sri Lanka
Sudan
Myanmar
Angola
Bulgaria
Congo
Finland
Guinea
Hungary
Kuwait
Nicaragua
Zimbabwe
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
year
Dots indicate years in which arms transactions occurred
Data come from SIPRI

REFERENCES

Achen, Christopher H. 2005. "Let's Put Garbage-Can Regressions and Garbage-Can Probits Where They Belong." *Conflict Management and Peace Science* 22(4): 327–39.

AFP. 2004. "Putin Pressures Turkey on Oil Refiner, Helicopter Projects." *Spacewar*. http://www.spacewar.com/2004/041206164002.v21ugsw5.html (February 14, 2013).

Aktürk, Şener. 2006. "Turkish–Russian Relations After the Cold War (1992–2002)." *Turkish Studies* 7(3): 337–64.

Albert, Réka, Hawoong Jeong, and Albert-László Barabási. 2000. "Error and Attack Tolerance of Complex Networks." *Nature* 406(6794): 378–82.

Allison, Graham T. 1969. "Conceptual Models and the Cuban Missile Crisis." *The American Political Science Review* 63(3): 689–718.

Allsop, Dee, and Herbert F. Weisberg. 1988. "Measuring Change in Party Identification in an Election Campaign." *American Journal of Political Science* 32(4): 996–1017.

Ambrosio, Thomas. 2009. *Authoritarian Backlash: Russian Resistance to Democratization in the Former Soviet Union*. Farnham, England: Ashgate Pub. Company.

"Ammendment to the International Traffic in Arms Regulations: Yemen." 2012. *Federal Register* 77(128): 39392–93.

Anderson, Carolyn J, Stanley Wasserman, and Bradley Crouch. 1999. "A P* Primer: Logit Models for Social Networks." *Social Networks* 21(1): 37–66.

Anderton, Charles H. 1995. "Economics of Arms Trade." In *Handbook of Defense Economics*, eds. T. Sandler and Keith Hartley. North Holland, 524–59.

"Australia's M113 APC Family Upgrades." 2012. *Defense Industry Daily*. http://www.defenseindustrydaily.com/australias-m113-apc-family-upgrades-05133/ (January 25, 2013).

Baldwin, David A. 2002. "Power and International Relations." In *Handbook of International Relations*, eds. Walter Carlsnaes, Thomas Risse, and Beth Simmons. London: Sage, 177–91.

Ball, Nicole. 1983. "Defense and Development: A Critique of the Benoit Study." *Economic Development and Cultural Change* 31(3): 507–24.

Barabasi, Albert-Laszlo. 2003. *Linked: How Everything Is Connected to Everything Else and What It Means*. Plume.

Barbieri, Katherine, and Omar Keshk. 2012. "Correlates of War Project Trade Data Set Codebook, Version 3.0." *Correlates of War*. http://correlatesofwar.org.

Barbieri, Katherine, Brian Pollins, and Omar M. G. Keshk. 2009. "Trading Data: Evaluating Our Assumptions and Coding Rules." *Conflict Management and Peace Science* 26(5): 471–91.

Barnett, Michael N., and Martha Finnemore. 1999. "The Politics, Power, and Pathologies of International Organizations." *International Organization* 53(04): 699–732.

Baugh, William H., and Michael L. Squires. 1983. "Arms Transfers and the Onset of War Part I: Scalogram Analysis of Transfer Patterns." *International Interactions* 10: 39–63.

Bennett, D. Scott, and Allan C. Stam. 2000. "Eugene: A Conceptual Manual." *International Interactions* 26(2): 179–204.

Berryman, John. 2000. "Russia and the Illicit Arms Trade." *Crime, Law and Social Change* 33(1-2): 85–104.

Betts, Richard K. 1980. "The Tragicomedy of Arms Trade Control." *International Security* 5(1): 80–110.

Blank, Stephen. 2007. *Rosoboroneksport: Arms Sales and the Structure of Russian Defense Industry*. Strategic Studies Institute. http://www.strategicstudiesinstitute.army.mil/pdffiles/pub749.pdf.

Blanton, Shannon Lindsey. 1999. "Instruments of Security or Tools of Repression? Arms Imports and Human Rights Conditions in Developing Countries." *Journal of Peace Research* 36(2): 233–44.

———. 2000. "Promoting Human Rights and Democracy in the Developing World: U.S. Rhetoric Versus U.S. Arms Exports." *American Journal of Political Science* 44(1): 123–31.

———. 2005. "Foreign Policy in Transition? Human Rights, Democracy, and U.S. Arms Exports." *International Studies Quarterly* 49(4): 647–68.

Boehmer, Charles R. 2008. "A Reassessment of Democratic Pacifism at the Monadic Level of Analysis." *Conflict Management and Peace Science* 25(1): 81 –94.

Brauer, Jurgen. 2003. "Potential and Actual Arms Production." In *The Arms Trade, Security and Conflict*, eds. Paul Levine and Ron Smith. Routledge, 21–36.

Brauer, Jurgen, and Paul Dunne. 2004. *Arms Trade and Economic Development: Theory, Policy and Cases in Arms Trade Offsets*. 1st ed. Routledge.

Bromund, Ted R. 2013. "Arms Sale Responsibility Act Has Serious Flaws." *The Foundry: Conservative Policy News Blog from The Heritage Foundation*. http://blog.heritage.org/2013/03/07/arms-sale-responsibility-act-proceed-with-caution/ (March 27, 2013).

Browning, Christopher S. 2002. "Coming Home or Moving Home? `Westernizing' Narratives in Finnish Foreign Policy and the Reinterpretation of Past Identities." *Cooperation and Conflict* 37(1): 47–72.

"BTR-80 Armored Personnel Carrier." 2000. *FAS Military Analysis Network*. http://www.fas.org/man/dod-101/sys/land/row/btr-80.htm (February 11, 2013).

Buchanan, Mark. 2002. *Nexus: Small Worlds and the Groundbreaking Science of Networks*. 1st ed. W. W. Norton & Company.

Bueno De Mesquita, Bruce, James D. Morrow, Randolph M. Siverson, and Alastair Smith. 1999. "An Institutional Explanation of the Democratic Peace." *The American Political Science Review* 93(4): 791–807.

Bull, Hedley. 2002. *The Anarchical Society: A Study of Order in World Politics*. 3rd ed. Basingstoke: Palgrave.

Burkhart, Ross E., and Michael S. Lewis-Beck. 1994. "Comparative Democracy: The Economic Development Thesis." *American Political Science Review* 88(4): 903–10.

Butts, C. T. 2007. "Network: A Package for Managing Relational Data in R." *Journal of Statistical Software* 24(2): 1–36.

Carlsnaes, Walter. 2002. "Foreign Policy." In *Handbook of International Relations*, eds. Walter Carlsnaes, Thomas Risse, and Beth Simmons. Thousand Oaks, CA: Sage, 331–49.

Del Carmen Garcia-Alonso, Maria, and Keith Hartley. 2003. "Export Controls, Market Structure and International Coordination." In *The Arms Trade, Security and Conflict*, eds. Paul Levine and Ron Smith. Routledge, 37–54.

Carpenter, R. Charli. 2007a. "Setting the Advocacy Agenda: Theorizing Issue Emergence and Nonemergence in Transnational Advocacy Networks." *International Studies Quarterly* 51(1): 99–120.

———. 2007b. "Studying Issue (non)-Adoption in Transnational Advocacy Networks." *International Organization* 61(03): 643–67.

Carter, Ralph G., and James M. Scott. 2009. *Choosing to Lead: Understanding Congressional Foreign Policy Entrepreneurs*. Duke University Press Books.

Carter, Ralph G., James M. Scott, and Charles M. Rowling. 2004. "Setting a Course: Congressional Foreign Policy Entrepreneurs In Post-World War II U.S. Foreign Policy." *International Studies Perspectives* 5(3): 278–99.

Chwieroth, Jeffrey M. 2008. "Normative Change from Within: The International Monetary Fund's Approach to Capital Account Liberalization." *International Studies Quarterly* 52(1): 129–58.

Collier, David, Jody Laporte, and Jason Seawright. 2008. "Typologies." In *The Oxford Handbook of Political Methodology*, eds. Janet M. Box-Steffensmeier, Henry E. Brady, and David Collier. Oxford University Press, USA, 152–73.

"Compliance." 2012. *US Department of State Directorate of Defense and Trade Controls*. http://www.pmddtc.state.gov/compliance/index.html (December 4, 2012).

Cooper, Julian. 1991. *The Soviet Defence Industry*. Thomson Learning.

———. 2010. "The 'Security Economy'." In *The Politics of Security in Modern Russia*, ed. Mark Galeotti. Farnham Surrey England ;;Burlington VT: Ashgate Pub. Co., 145–69.

Corbetta, Renato. 2010. "Determinants of Third Parties' Intervention and Alignment Choices in Ongoing Conflicts, 1946–2001." *Foreign Policy Analysis* 6(1): 61–85.

"Corporation." 2013. *oboronprom.ru*. http://www.oboronprom.ru/en/about (February 18, 2013).

"Country Policies and Embargoes." 2012. *US Department of State Directorate of Defense and Trade Controls*. http://www.pmddtc.state.gov/embargoed_countries/index.html (December 4, 2012).

COW. 2005. *Correlates of War Project - National Material Capabilities Data Documentation*. http://www.correlatesofwar.org/COW2%20Data/Capabilities/NMC_Documentation.pdf (July 26, 2012).

Craft, Cassady, and Joseph P. Smaldone. 2002. "The Arms Trade and the Incidence of Political Violence in Sub-Saharan Africa, 1967-97." *Journal of Peace Research* 39(6): 693–710.

Cranmer, Skyler J., and Bruce A. Desmarais. 2011. "Inferential Network Analysis with Exponential Random Graph Models." *Political Analysis* 19(1): 66–86.

Crile, George. 2004. *Charlie Wilson's War: The Extraordinary Story of How the Wildest Man in Congress and a Rogue CIA Agent Changed the History of Our Times*. Grove Press.

Davis, James A., and Samuel Leinhardt. 1972. "The Structure of Positive Interpersonal Relations in Small Groups." In *Sociological Theories in Progress : Volume Two*, eds. Joseph Berger, Morris Zelditch, and Bo Anderson. Boston: Houghton Mifflin Company.

Desmarais, Bruce A., and Skyler J. Cranmer. 2011. *Micro-Level Interpretation of Exponential Random Graph Models with Application to Estuary Networks*. Rochester, NY: Social Science Research Network. SSRN Scholarly Paper. http://papers.ssrn.com/abstract=1973620 (March 25, 2013).

Diehl, Paul F., and Mark J. C. Crescenzi. 1998. "Reconfiguring the Arms Race-War Debate." *Journal of Peace Research* 35(1): 111–18.

Dion, Douglas. 1998. "Evidence and Inference in the Comparative Case Study." *Comparative Politics* 30(2): 127–45.

Donaldson, Robert H., and Joseph L. Nogee. 2009. *The Foreign Policy of Russia: Changing Systems, Enduring Interests*. 4th ed. M.E.Sharpe.

Dorussen, Han, and Hugh Ward. 2008. "Intergovernmental Organizations and the Kantian Peace." *Journal of Conflict Resolution* 52(2): 189.

DSCA. 2012. *A5.1 - DSCA Reporting Requirements (Congressional)*. Washington D.C.: Defense Security Cooperation Agency. http://www.dsca.osd.mil/samm/ESAMM/A05/A5.01.htm (February 27, 2013).

———. 2013a. *C4 - Foreign Military Sales Program General Information*. Washington D.C.: Defense Security Cooperation Agency. http://www.dsca.osd.mil/samm/ESAMM/C04/4.htm (February 27, 2013).

———. 2013b. *C7 - Transportation*. Washington D.C.: Defense Security Cooperation Agency. http://www.dsca.osd.mil/samm/ESAMM/C07/7.htm (February 27, 2013).

Dumas, Lloyd J. 2004. "Do Offsets Mitigate or Magnify the Military Burden?" In *Arms Trade and Economic Development: Theory, Policy and Cases in Arms Trade Offsets*, eds. Jurgen Brauer and Paul Dunne. Routledge, 16–29.

Dyson, Stephen Benedict. 2001. "Drawing Policy Implications from the 'operational Code' of a 'new' Political Actor: Russian President Vladimir Putin." *Policy Sciences* 34(3): 329–46.

Enders, Walter, and Xuejuan Su. 2007. "Rational Terrorists and Optimal Network Structure." *Journal of Conflict Resolution* 51(1): 33.

"Estonia." 2013. *CIA World Factbook*. https://www.cia.gov/library/publications/the-world-factbook/geos/es.html (January 15, 2013).

"Estonia Military." 2013. *Nation Master*. http://www.nationmaster.com/country/es-estonia/mil-military (January 8, 2013).

"Estonian Reaction to Us Decision on Lifting Arms Embargo." 1994. *BBC Summary of World Broadcasts*.

Farley, Jonathan David. 2003. "Breaking Al Qaeda Cells: A Mathematical Analysis of Counterterrorism Operations (a Guide for Risk Assessment and Decision Making)." *Studies in Conflict and Terrorism* 26(6): 399–411.

Fearon, James D. 1994. "Signaling Versus the Balance of Power and Interests: An Empirical Test of a Crisis Bargaining Model." *The Journal of Conflict Resolution* 38(2): 236–69.

Fearon, James D., and David D. Laitin. 2008. "Integrating Qualitative and Quantitative Methods." In *The Oxford Handbook of Political Methodology*, eds. Janet M. Box-Steffensmeier, Henry E. Brady, and David Collier. Oxford University Press, USA, 756–76.

Fenno, Richard F. 1986. "Observation, Context, and Sequence in the Study of Politics." *The American Political Science Review* 80(1): 3–15.

"Finland Military." 2013. *Nation Master*. http://www.nationmaster.com/country/fi-finland/mil-military (January 8, 2013).

"Finland Military Strength." 2012. *Global Fire Power*. http://www.globalfirepower.com/country-military-strength-detail.asp?country_id=Finland (February 25, 2013).

Fiscal Year Series 2009. 2009. Washington D.C. Defense Securty Cooperation Agency. http://www.dsca.mil/programs/biz-ops/factsbook/Fiscal_Year_Series_2009.pdf (January 28, 2013).

Foreign Military Sales, Foreign Military Construction Sales and Other Security Cooperation Historical Facts. 2011. Washin: Defense Security Cooperation Agency. Defense Securty Cooperation Agency. http://www.dsca.osd.mil/programs/biz-ops/factsbook/Historical%20Facts%20Book%20-%2030%20September%202011.pdf (January 28, 2013).

Gaddy, Clifford G. 1996. *The Price of the Past: Russia's Struggle with the Legacy of a Militarized Economy*. Brookings Institution Press.

Gallis, P. E. 1994. *Partnership for Peace*. Washington D.C. CRS Report for Congress. http://digital.library.unt.edu/ark:/67531/metadc26043/m1/1/high_res_d/94-351_1994Aug09.pdf (January 22, 2013).

Geddes, Barbara. 1990. "How the Cases You Choose Affect the Answers You Get: Selection Bias in Comparative Politics." *Political Analysis* 2(1): 131–50.

George, Alexander L., and Andrew Bennett. 2005. *Case Studies and Theory Development in the Social Sciences*. The MIT Press.

Gerner, Debbie J. 1983. "Arms Transfers to the Third World: Research on Patterns, Causes and Effects." *International Interactions* 10: 5–37.

Gerring, John. 2008. "Case Selection for Case-Study Analysis: Qualitative and Quantitative Techniques." In *The Oxford Handbook of Political Methodology*, eds. Janet M. Box-Steffensmeier, Henry E. Brady, and David Collier. Oxford University Press, USA, 645–84.

"Getting Started with Defense Trade." 2012. *US Department of State Directorate of Defense and Trade Controls*. http://www.pmddtc.state.gov/documents/ddtc_getting_started.pdf (December 4, 2012).

Gibler, Douglas M., Toby J. Rider, and Marc L. Hutchison. 2005. "Taking Arms Against a Sea of Troubles: Conventional Arms Races During Periods of Rivalry." *Journal of Peace Research* 42(2): 131 –147.

Gibney, M., L. Cornett, and R. Wood. 2012. "Political Terror Scale 1976-2011." *Political Terror Scale Web Site*.

Giles, Keir, and Susanna Eskola. 2009. *Waking the Neighbor - Finland, NATO and Russia*. United Kingdom: Defence Academy of the United Kingdom. http://www.finlandnato.org/public/download.aspx?ID=49566&GUID=%7B7CB8A086-C30A-4246-8355-411A3BDE2FE7%7D (February 25, 2013).

Gilpin, Robert. 1981. *War and Change in World Politics*. Cambridge University Press.

———. 1988. "The Theory of Hegemonic War." *Journal of Interdisciplinary History* 18(4): 591–613.

Glaser, Charles L. 2000. "The Causes and Consequences of Arms Races." *Annual Review of Political Science* 3(1): 251.

Glassman, Jon D. 1975. *Arms for the Arabs: The Soviet Union and War in the Middle East*. Johns Hopkins University Press.

Goldmann, Kjell. 1988. *Change and Stability in Foreign Policy: The Problems and Possibilities of Détente*. Princeton University Press.

Goldstein, Joshua S. 1995. “Great-Power Cooperation Under Conditions of Limited Reciprocity: From Empirical to Formal Analysis.” *International Studies Quarterly* 39(4): 453–77.

Goldstein, Judith L., Douglas Rivers, and Michael Tomz. 2007. “Institutions in International Relations: Understanding the Effects of the GATT and the WTO on World Trade.” *International Organization* 61(01): 37–67.

Golts, Alexander. 2012. “Nobody Is Listening to Putin Anymore | Opinion.” *The Moscow Times*. http://www.themoscowtimes.com/opinion/article/nobody-is-listening-to-putin-anymore/460565.html (March 26, 2013).

Goodreau, S. M, M. S Handcock, D. R Hunter, C. T Butts, and M. Morris. 2008. “A Statnet Tutorial.” *Journal of statistical software* 24(9): 1.

Goodreau, Steven M., James A. Kitts, and Martina Morris. 2009. “Birds of a Feather, or Friend of a Friend? Using Exponential Random Graph Models to Investigate Adolescent Social Networks.” 46(1): 103–25.

Goose, Stephen D., and Frank Smyth. 1994. “Arming Genocide in Rwanda.” *Foreign Affairs* 73(5): 86–96.

Granovetter, Mark S. 1973. “The Strength of Weak Ties.” *American Journal of Sociology* 78(6): 1360.

Gray, Colin S. 1993. *Weapons Don’t Make War: Policy, Strategy, and Military Technology*. University Press of Kansas.

Grimmett, Richard F. 1996. “Conventional Arms Transfers to Developing Nations, 1988-1995.” *The Defense Institute of Security Assistance Management Journal* 19(1): 81–103.

———. 2011. *Conventional Arms Transfers To Developing Nations, 2003-2010*. Washington D.C.: Congressional Research Service. CRS Report for Congress. http://digital.library.unt.edu/ark:/67531/metadc93906/m1/1/high_res_d/R42017_2011Sep22.pdf (January 28, 2013).

Guryev, A. A. 2008. “Россия Вновь Выходит на Рынок Вооружений Турций,” *Институт Ближнего Востока*. http://www.iimes.ru/?p=7045 (February 6, 2013).

Hafner-Burton, Emilie M., Miles Kahler, and Alexander H. Montgomery. 2009. “Network Analysis for International Relations.” *International Organization* 63(03): 559–92.

Hafner-Burton, Emilie M., and Alexander H. Montgomery. 2006. “Power Positions: International Organizations, Social Networks, and Conflicts.” *Journal of Conflict Resolution* 50(1): 3 –27.

Haltiner, Karl W. 1998. “The Definite End of the Mass Army in Western Europe?” *Armed Forces & Society* 25(1): 7–36.

Handcock, Mark S., David R. Hunter, Carter T. Butts, Steven M. Goodreau, and Martina Morris. 2008. “Statnet: Software Tools for the Representation, Visualization, Analysis and Simulation of Network Data.” *Journal of Statistical Software* 24(1): 1–11.

Hanson, Philip. 2011. “Networks, Cronies and Business Plans: Business-State Relations in Russia.” In *Russia as a Network State: What Works in Russia When State Institutions Do Not?*, eds. Vadim Kononenko and Arkady Moshes. Palgrave Macmillan, 113–38.

Harkavy, Robert E. 1975. *The Arms Trade and International Systems*. Cambridge, MA: Ballinger Publishing Company.

Harrison, Ewan. 2010. “The Democratic Peace Research Program and System-Level Analysis.” *Journal of Peace Research* 47(2): 155 –165.

Hartley, Keith, and Stephen Martin. 2003. “The Economics of UK Arms Exports.” In *The Arms Trade, Security and Conflict*, eds. Paul Levine and Ron Smith. Routledge, 5–20.

Hill, Fiona, and Omer Taspinar. 2006. “Turkey and Russia: Axis of the Excluded?” *Survival* 48(1): 81–92.

“Historic Notes.” 2013. *oboronprom.ru*. http://www.oboronprom.ru/en/about/background (February 18, 2013).

Holsti, Kalevi J. 1964. “Strategy and Techniques of Influence in Soviet-Finnish Relations.” *The Western Political Quarterly* 17(1): 63–82.

Holsti, Ole R. 1992. “Public Opinion and Foreign Policy: Challenges to the Almond-Lippmann Consensus Mershon Series: Research Programs and Debates.” *International Studies Quarterly* 36(4): 439–66.

Hudson, Valerie M. 2005. “Foreign Policy Analysis: Actor-Specific Theory and the Ground of International Relations.” *Foreign Policy Analysis* 1(1): 1–30.

Hudson, Valerie M., and Christopher S. Vore. 1995. “Foreign Policy Analysis Yesterday, Today, and Tomorrow.” *Mershon International Studies Review* 39(2): 209–38.

Huth, Paul K. 1988. “Extended Deterrence and the Outbreak of War.” *The American Political Science Review* 82(2): 423–43.

Huth, Paul K., and Bruce Russett. 1993. “General Deterrence Between Enduring Rivals: Testing Three Competing Models.” *The American Political Science Review* 87(1): 61–73.

Hyung Min Kim. 2010. "Comparing Measures of National Power." *International Political Science Review* 31(4): 405 –427.

"India, Russia Sign Defence Deals." 2012. *BBC*. http://www.bbc.co.uk/news/world-asia-india-20834910 (December 27, 2012).

Jackman, Simon. 2008. "Measurement." In *The Oxford Handbook of Political Methodology*, eds. Janet M. Box-Steffensmeier, Henry E. Brady, and David Collier. Oxford University Press, USA, 119–51.

Jackson, Thomas. 2010. "From Under Their Noses: Rebel Groups' Arms Acquisition and the Importance of Leakages from State Stockpiles." *International Studies Perspectives* 11(2): 131–47.

"Jordan Military." 2013. *Nation Master*. http://www.nationmaster.com/country/jo-jordan/mil-military (January 8, 2013).

Joshua, Wynfred, and Stephen P. Gibert. 1969. *Arms for the Third World: Soviet Military Aid Diplomacy*. Johns Hopkins Press.

Kadera, Kelly. 2001. *The Power-Conflict Story: A Dynamic Model of Interstate Rivalry*. Ann Arbor: University of Michigan Press.

Kadera, Kelly M., and Sara McLaughlin Mitchell. 2005. "Heeding Ray's Advice: An Exegesis on Control Variables in Systemic Democratic Peace Research." *Conflict Management and Peace Science* 22(4): 311–26.

Kalyvas, Stathis N., and Laia Balcells. 2010. "International System and Technologies of Rebellion: How the End of the Cold War Shaped Internal Conflict." *American Political Science Review* 104(03): 415–29.

Kangas, Anni. 2011. "Beyond Russophobia A Practice-based Interpretation of Finnish–Russian/Soviet Relations." *Cooperation and Conflict* 46(1): 40–59.

Kassianova, Alla. 2006. *Enter Rosoboronexport*. Institute for European, Russian, and Eurasian Studies. Memo. http://www.gwu.edu/~ieresgwu/assets/docs/ponars/pm_0406.pdf (March 22, 2012).

Katzenstein, Peter J., and Rudra Sil. 2010. "Eclectic Theorizing in the Study and Practice of International Relations." In *The Oxford Handbook of International Relations*, eds. Christian Reus-Smit and Duncan Snidal. Oxford University Press, USA, 109–30.

Keinast, Kätlin. 2006. "Russian Trade with Finland, Estonia, Latvia, and Lithuania." *www.eeestipank.ee*. http://www.eestipank.ee/sites/default/files/publication/en/Archive/kroon_economy/2006/_5_0.pdf (February 25, 2013).

Keohane, Robert. 2005. *After Hegemony: Cooperation and Discord in the World Political Economy*. 1. Princeton classic ed. Princeton NJ [u.a.]: Princeton Univ. Press.

Keohane, Robert O. 1971. "The Big Influence of Small Allies." *Foreign Policy* (2): 161–82.

King, Gary. 1990. "On Political Methodology." *Political Analysis* 2(1): 1.

King, Gary, Robert O Keohane, and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton, N.J: Princeton University Press.

King, Gary, and Langche Zeng. 2001a. "Explaining Rare Events in International Relations." *International Organization* 55(03): 693–715.

———. 2001b. "Logistic Regression in Rare Events Data." *Political Analysis* 9(2): 137 – 163.

Kiniklioğlu, Suat, and Valeriy Morkva. 2007. "An Anatomy of Turkish–Russian Relations." *Southeast European and Black Sea Studies* 7(4): 533–53.

Kinsella, David. 1994. "Conflict in Context: Arms Transfers and Third World Rivalries During the Cold War." *American Journal of Political Science* 38(3): 557–81.

———. 2006. "The Black Market in Small Arms: Examining a Social Network." *Contemporary Security Policy* 27(1): 100–117.

Kinsella, David, and Herbert K. Tillema. 1995. "Arms and Aggression in the Middle East: Overt Military Interventions, 1948-1991." *The Journal of Conflict Resolution* 39(2): 306–29.

Klare, Michael T. 2004. "The Deadly Connection: Paramilitary Bands, Small Arms Diffusion, and State Failure." In *When States Fail: Causes and Consequences*, ed. Robert I. Rotberg. Princeton University Press, 116–34.

Knoke, David, and Dr. Song Yang. 2007. *Social Network Analysis*. 2nd ed. Sage Publications, Inc.

Kohout, Franz. 2003. "Cyclical, Hegemonic, and Pluralistic Theories of International Relations: Some Comparative Reflections on War Causation." *International Political Science Review/ Revue internationale de science pol* 24(1): 51–66.

Kononenko, Vadim, and Arkady Moshes, eds. 2011. *Russia as a Network State: What Works in Russia When State Institutions Do Not?* Palgrave Macmillan.

Korotchenko, Igor. 2001. “Российское Оружие в Турции.” *Независимое Военное Обозрение*. http://nvo.ng.ru/armament/2001-09-28/6_turkey.html (February 6, 2013).

Koschade, Stuart A. 2006. “A Social Network Analysis of Jemaah Islamiyah: The Applications to Counter-Terrorism and Intelligence.” *Studies in Conflict and Terrorism* 29(6): 559–75.

Kostirev, Vladimir. 2010. “Рособоронэкспорт Продал Турции ПТРК, Соглашения С Грецией И Сирией Отложены.” *infox.ru*. http://www.infox.ru/authority/defence/2010/07/01/Rosoboroneksport_pro.phtml (February 6, 2013).

Krasner, Stephen D. 1976. “State Power and the Structure of International Trade.” *World Politics* 28(3): 317–47.

———. 1978. *Defending the National Interest: Raw Materials Investments and US Foreign Policy Paper*. Princeton University Press.

Krause, Keith. 1991. “Military Statecraft: Power and Influence in Soviet and American Arms Transfer Relationships.” *International Studies Quarterly* 35(3): 313–36.

———. 1992. *Arms and the State: Patterns of Military Production and Trade*. Cambridge: Cambridge University Press.

Krause, Volker. 2004. “Hazardous Weapons? Effects of Arms Transfers and Defense Pacts on Militarized Disputes, 1950-1995.” *International Interactions* 30(4): 349–71.

Krebs, Valdis E. 2002. “Mapping Networks of Terrorist Cells.” *Connections* 24(3): 43–52.

Kreutz, Andrej. 2007. *Russia in the Middle East: Friend Or Foe?* Greenwood Publishing Group.

Kryshtanovskaya, Ol’ga, and Stephen White. 2009. “The Sovietization of Russian Politics.” *Post-Soviet Affairs* 25(4): 283–309.

Kryshtanovskaya, Olga, and Stephen White. 2011. “The Formation of Russia’s Network Directorate.” In *Russia as a Network State: What Works in Russia When State Institutions Do Not?*, eds. Vadim Kononenko and Arkady Moshes. Palgrave Macmillan, 19–38.

Kubalkova, Vendulka, ed. 2001. *Foreign Policy in a Constructed World*. M.E. Sharpe.

Kuchma, Maria. 2011. “Conflicting Interests Paralyze Russian Diplomacy on Syria.” *RIA Novosti*. http://en.rian.ru/analysis/20110824/166115725.html (October 4, 2011).

Lai, Brian. 2003. “Examining the Goals of US Foreign Assistance in the Post-cold War Period, 1991-96.” *Journal of Peace Research* 40(1): 103–28.

Lake, David A. 2011. “Why ‘isms’ Are Evil: Theory, Epistemology, and Academic Sects as Impediments to Understanding and Progress1.” *International Studies Quarterly* 55(2): 465–80.

Lake, David A. 2009. *Hierarchy in International Relations*. Cornell University Press.

Lavrov, Sergey V. 2011. “Statement by H.E. Mr. Sergey V. LAVROV, Minister of Foreign Affairs of the Russian Federation, at the 66th Session of the UN General Assembly, September 27, 2011.” Presented at the U.N. General Assemble, New York, NY. http://www.mid.ru/brp_4.nsf/0/538FC5168B48F34AC325791800581C41.

Lebo, Matthew J., and Will H. Moore. 2003. “Dynamic Foreign Policy Behavior.” *Journal of Conflict Resolution* 47(1): 13 –32.

Ledeneva, Alena. 2011. “Can Medvedev Change Sistema? Informal Networks and Public Administration in Russia.” In *Russia as a Network State: What Works in Russia When State Institutions Do Not?*, eds. Vadim Kononenko and Arkady Moshes. Palgrave Macmillan, 39–61.

Lee, S. C., Robert G. Muncaster, and Dina A. Zinnes. 1994. “‘The Friend of My Enemy Is My Enemy’: Modeling Triadic Internation Relationships.” *Synthese* 100(3): 333–58.

Lektzian, David, and Mark Souva. 2007. “An Institutional Theory of Sanctions Onset and Success.” *Journal of Conflict Resolution* 51(6): 848–71.

Lepgold, J. 1998. “Is Anyone Listening? International Relations Theory and the Problem of Policy Relevance.” *Political Science Quarterly*: 43–62.

Levine, Paul, Fotis Mouzukis, and Ron Smith. 2003. “Arms Export Controls and Emerging Domestic Producers.” In *The Arms Trade, Security and Conflict*, eds. Paul Levine and Ron Smith. Routledge, 55–77).

Levine, Paul, and Ron Smith. 1995. “The Arms Trade and Arms Control.” *The Economic Journal* 105(429): 471–84.

Liang, Xiaodon. 2011. “Middle East Arms Trade: Yemen.” *Arms Control Now: The Blog of the Arms Control Association*. http://armscontrolnow.org/2011/04/06/arms-sales-to-yemen/ (January 24, 2013).

Long, J. Scott. 1997. *Regression Models for Categorical and Limited Dependent Variables*. 1st ed. Sage Publications, Inc.

Lukacs, John. 1992. “Finland Vindicated.” *Foreign Affairs* 71(4): 50–63.

Lumpe, Lora. 2000. *Running Guns: The Global Black Market in Small Arms*. Zed Books.

Maniruzzaman, Talukder. 1992. "Arms Transfers, Military Coups, and Military Rule in Developing States." *Journal of Conflict Resolution* 36(4): 733 –755.

De Marchi, Scott, and Scott E. Page. 2008. "Agent-Based Modeling." In *The Oxford Handbook of Political Methodology*, eds. Janet M. Box-Steffensmeier, Henry E. Brady, and David Collier. Oxford University Press, USA, 71–94.

Marinov, Nikolay. 2005. "Do Economic Sanctions Destabilize Country Leaders?" *American Journal of Political Science* 49(3): 564–76.

Markedonov, Sergey, and Natalya Ulchenko. 2011. "Turkey and Russia: An Evolving Relationship." *Carnegie Endowment for International Peace*. http://carnegieendowment.org/2011/08/19/turkey-and-russia-evolving-relationship (February 6, 2013).

Marsh, Nicholas. 2007. "Conflict Specific Capital: The Role of Weapons Acquisition in Civil War." *International Studies Perspectives* 8(1): 54–72.

Marshall, Monty G., and Keith Jaggers. 2002. "Polity IV Project: Political Regime Characteristics and Transitions, 1800-2002." http://www.cidcm.umd.edu/inscr/polity/index.htm.

Mattern, Janice Bially. 2010. "The Concept of Power and the (Un)Discipline of International Relations." In *The Oxford Handbook of International Relations*, eds. Christian Reus-Smit and Duncan Snidal. Oxford University Press, USA, 691–98.

Van Metre, Lauren. 1997. *Managing NATO Enlargement*. Madrid: United States Institute of PEace. Special Report. http://www.usip.org/publications/managing-nato-enlargement (January 22, 2013).

"Mi-8 HIP." 2000. *FAS Military Analysis Network*. http://www.fas.org/man/dod-101/sys/ac/row/mi-8.htm (February 11, 2013).

Mintz, Alex. 1986. "Arms Imports as an Action-Reaction Process: An Empirical Test of Six Pairs of Developing Nations." *International Interactions* 12: 229–43.

"Mission." 2012. *US Department of State Directorate of Defense and Trade Controls*. http://www.pmddtc.state.gov/index.html (December 4, 2012).

Modelski, George, and William R. Thompson. 1999. "The Long and the Short of Global Politics in the Twenty-First Century: An Evolutionary Approach." *International Studies Review* 1(2): 109–40.

Moravcsik, Andrew. 2003. "Theory Synthesis in International Relations: Real Not Metaphysical." *International Studies Review* 5(1): 131–36.

Müller, Harald. 2002. "Security Cooperation." In *Handbook of International Relations*, eds. Walter Carlsnaes, Thomas Risse, and Beth Simmons. Thousand Oaks, CA: Sage, 369–91.

Muncaster, Robert G., and Dina A. Zinnes. 1982. "A Model of Inter-Nation Hostility Dynamics and War." *Conflict Management and Peace Science* 6(2): 19–37.

NATO. 2006. *Interoperability for Joint Operations*. Brussells: NATO. http://www.nato.int/nato_static/assets/pdf/pdf_publications/20120116_interoperability-en.pdf (February 16, 2013).

"NATO - Signatures of Partnership for Peace Framework Document." 2013. *NATO*. http://www.nato.int/cps/en/natolive/topics_82584.htm (January 22, 2013).

Nye, Joseph S. 1990. "Soft Power." *Foreign Policy* (80): 153–71.

Oboronprom. 2006. "Opk 'oboronprom' and Jordanian Company to Sign Agreement on Russian-Jordanian Joint Venture at Sofex 2006." *oboronprom.ru*. http://www.oboronprom.ru/en/news/opk-%E2%80%9Coboronprom%E2%80%9D-and-jordanian-company-sign-agreement-russian-jordanian-joint-venture-sofex-200 (February 18, 2013).

Oneal, John R., and Bruce M. Russet. 1997. "The Classical Liberals Were Right: Democracy, Interdependence, and Conflict, 1950-1985." *International Studies Quarterly* 41(2): 267–94.

Oneal, John R., and Bruce Russett. 1999. "The Kantian Peace: The Pacific Benefits of Democracy, Interdependence, and International Organizations, 1885-1992." *World Politics* 52(1): 1–37.

Onuf, Nicholas. 2001. "Speaking of Policy." In *Foreign Policy in a Constructed World*, ed. Vendulka Kubalkova. M.E. Sharpe, 77–96.

Organski, A. F. K., and Jacek Kugler. 1981. *The War Ledger*. University Of Chicago Press.

Ortmann, Stefanie. 2011. "The Russian Network State as a Great Power." In *Russia as a Network State: What Works in Russia When State Institutions Do Not?*, eds. Vadim Kononenko and Arkady Moshes. Palgrave Macmillan, 139–63.

Pastor-Satorras, Romualdo, and Alessandro Vespignani. 2001. "Epidemic Dynamics and Endemic States in Complex Networks." *Physical Review E* 63(6): 066117.

Peksen, Dursun, and A. Cooper Drury. 2010. "Coercive or Corrosive: The Negative Impact of Economic Sanctions on Democracy." *International Interactions* 36(3): 240–64.

Peralta, Eyder. 2012. "U.S. Acknowledges Military Action In Yemen And Somalia." *NPR.org*. http://www.npr.org/blogs/thetwo-way/2012/06/15/155142308/u-s-acknowledges-military-action-in-yemen-and-somalia (January 24, 2013).

Petro, Nicolai N., and Alvin Z. Rubinstein. 1997. *Russian Foreign Policy From Empire to Nation-State - 1997 Publication.* 1st ed. Pearson.

Pevehouse, Jon C. 2002. "Democracy from the Outside-In? International Organizations and Democratization." *International Organization* 56(3): 515–49.

Popper, Karl Raimund. 1968. *Conjectures and Refutations: The Growth of Scientific Knowledge*. Harper & Row.

Porter, Bruce D. 1984. *The USSR in Third World Conflicts: Soviet Arms and Diplomacy in Local Wars, 1945-1980*. Cambridge; New York: Cambridge University Press.

———. 1994. *War and the Rise of the State*. 1st ed. Free Press.

Prados, Edward. 2005. *The US and Yemen: A Half-Century of Engagement*. Washington D.C.: Center for Contemporary Arab Studies, Georgetown University. Occasional Paper. http://ccas.georgetown.edu/document/1242772109439/CCAS_Occasional+Paper_15.pdf (January 24, 2013).

Pratt, Cranford. 1983. "Dominant Class Theory and Canadian Foreign Policy: The Case of the Counter-Consensus." *International Journal* 39(1): 99–135.

President of Russia. 2007. "Events Files: Official Visit to Jordan." *kremlin.ru*. http://archive.kremlin.ru/eng/events/articles/2007/02/117801/118405.shtml (February 18, 2013).

Przeworski, Adam, Michael E. Alvarez, Jose Antonio Cheibub, and Fernando Limongi. 2000. *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*. 1st ed. Cambridge University Press.

Przeworski, Adam, and Michael Wallerstein. 1982. "The Structure of Class Conflict in Democratic Capitalist Societies." *The American Political Science Review* 76(2): 215–38.

Qingmin, Zhang. 2006. "The Bureaucratic Politics of US Arms Sales to Taiwan." *The Chinese Journal of International Politics* 1(2): 231–65.

Rashiduzzaman, M. 1997. "Political Unrest and Democracy in Bangladesh." *Asian Survey* 37(3): 254–68.

Rasler, Karen, and William R. Thompson. 2004. "The Democratic Peace and a Sequential, Reciprocal, Causal Arrow Hypothesis." *Comparative Political Studies* 37(8): 879–908.

Renshon, Jonathan. 2008. “Stability and Change in Belief Systems: The Operational Code of George W. Bush.” *Journal of Conflict Resolution* 52(6): 820–49.

“Restriction of Munitions Export Licenses to Yemen.” 1992. *Federal Register* 57(242): 9.

RIA Novisti. 2013. “Bangladesh Plans to Buy 24 Russian Jet Trainers.” *RIA Novosti*. http://www.en.rian.ru/world/20130327/180281752/Bangladesh-Plans-to-Buy-24-Russian-Jet-Trainers.html (March 27, 2013).

Risse-Kappen, Thomas. 1991. “Public Opinion, Domestic Structure, and Foreign Policy in Liberal Democracies.” *World Politics* 43(4): 479–512.

Robert W. Cox. 1993. “Gramsci, Hegemony and International Relations: An Essay in Method.” In *Gramsci, historical materialism and international relations*, ed. Stephen Gill. Cambridge [England] ;;New York NY: Cambridge University Press.

Robins, Garry, Pip Pattison, Yuval Kalish, and Dean Lusher. 2007. “An Introduction to Exponential Random Graph (p*) Models for Social Networks.” *Social Networks* 29(2): 173–91.

Robins, Garry, Pip Pattison, and Peng Wang. 2009. “Closure, Connectivity and Degree Distributions: Exponential Random Graph (p*) Models for Directed Social Networks.” *Social Networks* 31(2): 105–17.

Rosati, Jerel A., and Joe D. Hagan. 1994. *Foreign Policy Restructuring: How Governments Respond to Global Change*. University of South Carolina Press.

Rosato, Sebastian. 2003. “The Flawed Logic of Democratic Peace Theory.” *American Political Science Review* 97(04): 585–602.

Rosenau, James N. 1975. “Comparing Foreign Policies: Why, What How.” In *Comparing Foreign Policies: Theories, Findings and Methods*, ed. Rosenau, James N. John Wiley & Sons Inc, 3–24.

Rosenau, James N., and Gary D. Hoggard. 1975. “Foreign Policy Behavior in Dyadic Relationships: Testing a Pre-Theoretical Extension.” In *Comparing Foreign Policies: Theories, Findings and Methods*, ed. James N. Rosenau. John Wiley & Sons Inc, 117–49.

“Rosoboroneksport Corporate Strategy.” 2012. *Rosoboroneksport*. http://www.roe.ru/roe/eng_strategie.html (November 15, 2012).

“Rosoboronexport Director General.” 2012. *Rosoboroneksport*. http://www.roe.ru/roe/eng_gd.html (December 3, 2012).

Rotberg, Robert I. 2004. *When States Fail: Causes and Consequences*. Princeton University Press.

Rousseau, David L., Christopher Gelpi, Dan Reiter, and Paul K. Huth. 1996. "Assessing the Dyadic Nature of the Democratic Peace, 1918-88." *The American Political Science Review* 90(3): 512–33.

Rueschemeyer, Dietrich, Evelyne Huber Stephens, and John D. Stephens. 1992. *Capitalist Development and Democracy*. 1st ed. University Of Chicago Press.

"Russia Opposes Arms Embargo on Syria - Lavrov." 2011. *RIA Novosti*. http://en.rian.ru/analysis/20110824/166115725.html (December 3, 2011).

"Russia 'Will Not Be Dictated To' On Arms Sales." 2012. *RadioFreeEurope/RadioLiberty*. http://www.rferl.org/content/russia-wont-be-dictated-to-on-arms/24742979.html (October 23, 2012).

Ryan, Curtis R. 2004. "'Jordan First': Jordan's Inter-Arab Relations and Foreign Policy Under King Abdullah II." *Arab Studies Quarterly* 26(3): 43–62.

Sanjian, Gregory S. 1999. "Promoting Stability or Instability? Arms Transfers and Regional Rivalries,1950–1991." *International Studies Quarterly* 43(4): 641–70.

Sanjian, Gregory S. 1991. "Great Power Arms Transfers: Modeling the Decision-Making Processes of Hegemonic, Industrial, and Restrictive Exporters." *International Studies Quarterly* 35(2): 173–93.

Saul, Zachary M., and Vladimir Filkov. 2007. "Exploring Biological Network Structure Using Exponential Random Graph Models." *Bioinformatics* 23(19): 2604–11.

Schelling, Thomas C. 1966. *Arms and Influence*. New Haven: Yale University Press.

Schinasi, Katherine V. 2005. *Arms Export Control System in the Post - 9/11 Environment*. Washington D.C.: Government Accounting Office. http://www.gao.gov/products/GAO-05-234 (July 22, 2012).

Sezer, Duygu Bazoğlu. 2000. "Turkish-Russian Relations: The Challenges of Reconciling Geopolitical Competition with Economic Partnership." *Turkish Studies* 1(1): 59–82.

Shapiro, Andrew J. 2012. "Briefing on Department of State Efforts to Expand Defense Trade." *US Department of State: Diplomacy in Action*. http://www.state.gov/r/pa/prs/ps/2012/06/192408.htm (January 24, 2013).

Sharp, Jeremy M. 2010. *Yemen: Background and US Relations*. Washington D.C. CRS Report for Congress. http://digital.library.unt.edu/ark:/67531/metadc29697/?q=Yemen%20Arms%20Sales (January 22, 2013).

Shichor, Yitzhak. 2000. "Mountains Out of Molehills: Arms Transfers in Sino-Middle Eastern Relations." *Middle East Review of International Affairs* 4(3): 68–79.

Shumate, Michelle, and Edward T. Palazzolo. 2010. "Exponential Random Graph (p*) Models as a Method for Social Network Analysis in Communication Research." *Communication Methods and Measures* 4(4): 341–71.

Signorino, Curtis S., and Ahmer Tarar. 2006. "A Unified Theory and Test of Extended Immediate Deterrence." *American Journal of Political Science* 50(3): 586–605.

Singer, J. David. 1961. "The Level-of-Analysis Problem in International Relations." *World Politics* 14(1): 77–92.

———. 1988. "Reconstructing the Correlates of War Dataset on Material Capabilities of States, 1816–1985." *International Interactions* 14(2): 115–32.

Singer, J. David, Stuart Bremer, and John Stuckey. 1972. "Capability Distribution, Uncertainty, and Major Power War, 1820-1965." In *Peace, War, and Numbers*, ed. Bruce Russett. Sage Publications.

Singer, J. David, and Melvin Small. 1966. "The Composition and Status Ordering of the International System: 1815–1940." *World Politics* 18(02): 236–82.

SIPRI. 1975. *The Arms Trade with the Third World: Revised and Abridged Version*. New York: Holmes and Meier.

———. 2008. *SIPRI Yearbook 2008: Armaments, Disarmament, and International Security*. Oxford University Press, USA.

———. 2011a. "Bangladesh Arms Trade Register." *Stockholm International Peace Research Institute Arms Transfers Database*. http://www.sipri.org/databases/armstransfers (January 17, 2013).

———. 2011b. "Estonia Arms Trade Register." *Stockholm International Peace Research Institute Arms Transfers Database*. http://www.sipri.org/databases/armstransfers (January 17, 2013).

———. 2011c. "Finland Arms Trade Register." *Stockholm International Peace Research Institute Arms Transfers Database*. http://www.sipri.org/databases/armstransfers (January 17, 2013).

———. 2011d. "Jordan Arms Trade Register." *Stockholm International Peace Research Institute Arms Transfers Database*. http://www.sipri.org/databases/armstransfers (January 17, 2013).

———. 2011e. "Stockholm International Peace Research Institute Arms Transfers Database." http://www.sipri.org/databases/armstransfers (March 22, 2011).

———. 2011f. “Turkey Arms Trade Register.” *Stockholm International Peace Research Institute Arms Transfers Database*. http://www.sipri.org/databases/armstransfers (January 17, 2013).

———. 2011g. “Yemen Arms Trade Register.” *Stockholm International Peace Research Institute Arms Transfers Database*. http://www.sipri.org/databases/armstransfers (January 22, 2013).

Sisk, Richard. 2013. “State Department Supports Foreign Military Sales Growth.” *DoD Buzz*. http://www.dodbuzz.com/2013/01/29/state-department-supports-foreign-military-sales-growth/ (March 27, 2013).

Smith, Ron, Anthony Humm, and Jacques Fontanel. 1985. “The Economics of Exporting Arms.” *Journal of Peace Research* 22(3): 239–47.

Smith, Ron, and Bernard Udis. 2003. “New Challenges to Arms Export Control: Whither Wassenaar?” In *The Arms Trade, Security and Conflict*, eds. Paul Levine and Ron Smith. Routledge, 94–110.

Smith, Steve. 2001. “Foreign Policy is What States Make of It: Construction and International Relations Theory.” In *Foreign Policy in a Constructed World*, ed. Vendulka Kubalkova. M.E. Sharpe, 38.

Snijders, Tom A. B., and Roel Bosker. 2011. *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling*. Second Edition. Sage Publications Ltd.

Snyder, Glenn H. 2007. *Alliance Politics*. Cornell University Press.

Solsten, Eric, and Sandra W. Meditz. 1988. “Finland: A Country Study.” *countrystudies.us*. http://countrystudies.us/finland/ (February 25, 2013).

De Soysa, Indra, and Paul Midford. 2012. “Enter The Dragon! An Empirical Analysis of Chinese Versus US Arms Transfers to Autocrats and Violators of Human Rights, 1989–20061.” *International Studies Quarterly* 56(4): 843–56.

Sprecher, Christopher, and Volker Krause. 2006. “Alliances, Armed Conflict, and Cooperation: Theoretical Approaches and Empirical Evidence.” *Journal of Peace Research* 43(4): 363 –369.

“State Department Approved Six-Fold Increase in Arms Exports to Yemen.” 2012. *World Tribune*. http://www.worldtribune.com/2012/06/11/state-dept-approved-six-fold-increase-in-arms-exports-to-yemen/ (January 24, 2013).

Stavrianakis, Anna. 2010. *Taking Aim at the Arms Trade: NGOS, Global Civil Society and the World Military Order*. Zed Books.

Box-Steffensmeier, Janet M., and Bradford S. Jones. 2004. *Event History Modeling: A Guide for Social Scientists*. Cambridge University Press.

Strazzari, Francesco, and Simone Tholens. 2010. "Another Nakba: Weapons Availability and the Transformation of the Palestinian National Struggle, 1987-2007." *International Studies Perspectives* 11(2): 112–30.

Suchman, Mark C., and Dana P. Eyre. 1992. "Military Procurement as Rational Myth: Notes on the Social Construction of Weapons Proliferation." *Sociological Forum* 7: 137–61.

"Syria and Russia: Wait and Sea." 2012. *The Economist*. http://www.economist.com/node/21542793 (January 23, 2012).

Tarasov, Stanislav. 2012. "Russia, Turkey: Good Relations in Trade, Lesser Understanding in Politics." http://english.ruvr.ru/2012_11_30/Russia-Turkey-good-relations-in-trade-lesser-understanding-in-politics/ (February 6, 2013).

Taylor, Brian D. 2007. *Russia's Power Ministries: Coercion and Commerce*. Syracuse University: Institute for National Security and Counterterrorism. http://www.desastres.org/pdf/taylorrussiaministries.pdf (February 4, 2013).

———. 2011. *State Building in Putin's Russia: Policing and Coercion After Communism*. 1st ed. Cambridge University Press.

Toronto, Nathan. 2007. *Military Recruitment Data Set*. Ft. Leavenworth, KS: Foreign Military Studies Office. Codebook.

"Turetskii Demarsh: Rosoboroneksport Obvinil 'Vertilyoti Mi' v Nezakonom Predprinimatelstve." 2003. *sostov.ru*. http://www.sostav.ru/news/2003/04/17/gl77/ (February 6, 2013).

"Turkey Military." 2013. *Nation Master*. http://www.nationmaster.com/country/tu-turkey/mil-military (January 8, 2013).

Vaughn, Bruce. 2006. *Bangladesh: Background and US Relations*. Washington D.C.: Congressional Research Service. C. http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA461379 (January 28, 2013).

Volgy, Thomas J., and John E. Schwarz. 1994. "Foreign Policy Restructuring and the Myriad Webs of Restraint." In *Foreign Policy Restructuring: How Governments Respond to Global Change*, eds. Jerel A. Rosati and Joe D. Hagan. University of South Carolina Press, 22–42.

Walker, Stephen G., Mark Schafer, and Michael D. Young. 1999. "Presidential Operational Codes and Foreign Policy Conflicts in the Post-Cold War World." *The Journal of Conflict Resolution* 43(5): 610–25.

Wallerstein, Immanuel. 1974. “The Rise and Future Demise of the World Capitalist System: Concepts for Comparative Analysis.” *Comparative Studies in Society and History* 16(4): 387–415.

Walt, Stephen M. 1985. “Alliance Formation and the Balance of World Power.” *International Security* 9(4): 3–43.

Waltz, Kenneth N. 1959. *Man, the State, and War*. Revised. Columbia University Press.

———. 1979. *Theory of International Politics*. 1st ed. McGraw-Hill.

Ward, Michael D., Randolph M. Siverson, and Xun Cao. 2007. “Disputes, Democracies, and Dependencies: A Reexamination of the Kantian Peace.” *American Journal of Political Science* 51(3): 583–601.

Wasserman, Stanley, and Katherine Faust. 1994. *Social Network Analysis: Methods and Applications*. 1st ed. Cambridge University Press.

Watts, Duncan. 2003. *Six Degrees: The Science of a Connected Age*. 1st ed. New York: Norton.

Weiss, Thomas G. 1999. “Sanctions as a Foreign Policy Tool: Weighing Humanitarian Impulses.” *Journal of Peace Research* 36(5): 499–509.

Wendt, Alexander. 1987. “The Agent-Structure Problem in International Relations Theory.” *International Organization* 41(3): 335–70.

———. 1992. “Anarchy Is What States Make of It: The Social Construction of Power Politics.” *International Organization* 46(2): 391–425.

———. 1999. *Social Theory of International Politics*. Cambridge UK; New York: Cambridge University Press.

Werner, Suzanne. 2000. “The Effects of Political Similarity on the Onset of Militarized Disputes, 1816-1985.” *Political Research Quarterly* 53(2): 343–74.

Westreich, Jonathan Donald. 1993. “Regulatory Controls on United States Exports of Weapons and Weapons Technology: The Failure to Enforce the Arms Export Control Act.” *Administrative Law Journal of the American University* 7: 463.

White, Harrison C., Scott A. Boorman, and Ronald L. Breiger. 1976. “Social Structure from Multiple Networks. I. Blockmodels of Roles and Positions.” *The American Journal of Sociology* 81(4): 730–80.

Wood, Elisabeth Jean. 2008. “The Social Processes of Civil War: The Wartime Transformation of Social Networks.” *Annual Review of Political Science* 11(1): 539–61.

Wu, Samuel S. G. 1990. "To Attack or Not to Attack: A Theory and Empirical Assessment of Extended Immediate Deterrence." *The Journal of Conflict Resolution* 34(3): 531–52.

"Yemen." 2013. *CIA World Factbook*. https://www.cia.gov/library/publications/the-world-factbook/geos/ym.html (January 15, 2013).

"Yemen Military." 2013. *Nation Master*. http://www.nationmaster.com/country/ym-yemen/mil-military (January 8, 2013).