

Hugging with Tactical Arms:
What Motivates China to Export Weapons?

a thesis presented

by

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Contents

1	Introduction	1
2	China's Motives for Arms Sales	9
2.1	International Arms Trade Literature Review	9
2.2	China's Motives in the Current System	21
3	The Black Box of China's Arms Contracts	35
3.1	Introduction	35
3.2	Methodology	36
3.3	My Expectations	37
3.4	Reality of China's Arms Contracts	41
4	The PLA and Arms Exports	51
4.1	Introduction to Arms Exports and Military Expenditures	51
4.2	Methodology	52
4.3	Overview of China's Military-Industrial Complex	53
4.4	Hypothesis	59
4.5	Results	61
4.6	Conclusion	71
5	Energy Diplomacy and External Investment	73
5.1	Introduction	73
5.2	Literature Review	74
5.3	Trends of Arms Exports versus Trends of FDI	77
5.4	FDI and Arms Sales	80
5.5	Conclusion	89

6	The Case of Niger	91
6.1	Introduction	91
6.2	Niger's Political and Economic Situation	93
6.3	China-Niger Relations	97
6.4	Analysis	100
6.5	Conclusion	103
7	The Case of Iran	105
7.1	Introduction	105
7.2	Background	109
7.3	Analysis	112
7.4	Conclusion	119
8	Conclusions	121

List of Figures

2.1	Top Arms Suppliers in 2007	10
2.2	Arms suppliers in 2007 by tier and according to amount exported, data generated by <i>SIPRI</i> 2008	12
3.1	Revenue of second-tier arms exporters from 1990 to 2007, based on SIPRI data	42
3.2	Contribution of one-time contracts with recipients versus multiple contracts per recipient	43
4.1	China's estimated revenue of arms sales following commercialization initiatives	56
4.2	China's defense sales to Iran and Iraq during the Iran-Iraq War	57
4.3	Projected PLA budget	61
4.4	Annual Estimated Revenue of Chinese Arms Exports	62
4.5	Proportion of Chinese arms sales that make up PLA military expenditure .	63
4.6	Chinese Arms Sales to North Korea	67
4.7	North Korean Imports from the USSR and China	69
5.1	China's FDI Outflows from 1990 to 2007	78
5.2	Annual Estimated Revenue of Chinese Arms Exports	78
5.3	Comparison of arms sales trend overtime versus FDI outflow overtime . . .	79
5.4	China FDI and arms transfers to non-oil, arms recipients. Based on data from the <i>Bureau of National Statistics of China, 1994-2007</i> and SIPRI. . .	83
5.5	China FDI to oil-producing, arms recipients. Based on data from the <i>Bureau of National Statistics of China, 1994-2007</i> and SIPRI.	83
6.1	Map of Niger and surrounding states, <i>UN Office for the Least Developed Countries, Landlocked Developing Countries, and Small Island Developing States, 2009</i>	95

6.2	Niger's Military Expenditure in Constant Dollars, based on SIPRI estimates	98
7.1	Iran's Estimated Spending on Chinese Arms, based on <i>SIPRI's</i> 2008 estimates.	107
7.2	China's import and export patterns with Iran, based on <i>National Bureau of Statistics of China Annual Yearbooks 1994-2007</i>	113
7.3	Iran's Military Expenditure, from <i>SIPRI's Military Expenditure Database</i>	114
7.4	China's FDI outflows to Iran, based on <i>National Bureau of Statistics of China Annual Yearbooks 1994-2007</i>	117

Chapter 1

Introduction

China has created a niche in the weapons market, selling highly valued defense materials to developing states. It routinely exports missile technology, fighter aircraft, and support systems to some of the world's poorest and most repressive regimes. Many Western states and organizations criticize China's apparent strong-arming of undemocratic and repressive governments, as it routinely increases the foreign actor's military capabilities.¹ In recent years, the tension surrounding arms supplying nations has heightened. Even Hollywood has been capitalizing on the intrigue, as in *The International*, a recent film from Columbia Pictures. In the film, China's weapons dealings are so controversial that it transfers arms through a middleman, the elusive International Bank of Business and Credit.

The International is not far from the truth. In 2004, China sent a shipment of arms to the Sudanese government. These arms increased the lethality of the government's use of physical force against rebel groups. China received severe international criticism for fueling civil conflict in Sudan and allowing a pariah government to flourish. Despite incurring

¹Strong-arming refers to increasing a country's use of force for coercion or punishment strategies.

substantial political costs, China has continued arms sales undeterred.² China's most immediate gain from transferring arms is the profit it makes from the arms sale itself. Most developing, second-tier suppliers like China are motivated by financial incentives; they use the profit from their arms sales to modernize their military or arms production facilities. Second-tier suppliers consist of newly industrialized nations with burgeoning weapons industries such as Israel (Confer 2008). For the most part, they emerged as major players in the arms trade after the Cold War.

Yet, are financial incentives a sufficient explanation for why China exports arms? Money may not count for as much as one would suspect. In Chapter 4, I present findings on why arms revenue makes up an almost negligible proportion of Chinese military expenditure. If financial incentives do not motivate these arms sales, then other explanations must be explored.

In this thesis, I analyze case studies and quantitative data to determine the motivations behind China's arms sales and its supplier behavior from 1990 to 2007. I explore whether financial incentives, security incentives, or potential for natural resource acquisitions have the greatest impact on where China decides to send its arms and how many arms transfers it engages in. Transferring weapons to achieve a political end is not unheard of. As I show in greater detail in the next chapter, both Cold War superpowers routinely sold weapons to client states. The superpowers used weapons as a bargaining mechanism, since weapons suppliers were less prevalent than they are now. Often, superpower arms were a proxy for actual defense forces. For example, the Soviet Union transferred a large volume of arms to North Korea during the Korean War to offset US support to South Korea. The USSR never fought the United States directly, but the North Korean Army used Soviet equipment

²By political costs, I mean reputation costs incurred in the international arena.

against South Korea and allied U.S. ground troops.

China may pursue goals through weapons transfers, like the US and the USSR did from the 1950's through the 1980's. While the current system is more multipolar than the Cold War, most recipients still have relatively limited options. If arms are used for leverage, China is not a traditional supplier within the post-Cold War system. In this period, arms suppliers still engage in transfers for security reasons, but financial motivations loom larger. Since I want to understand contemporary arms sales, my study focuses on the time-frame immediately after the Cold War.

Most studies of China's arms transfers focus on recipients, not on China itself. Between 1999 and 2006, China sold over 10 billion US dollars (USD) worth of arms to developing nations (Grimmet 2007). China does not just sell weapons to nations engaged in military hostilities, but nations that are routinely criticized by the international community, such as Sudan, Iran, and Myanmar. Human rights organizations claim China arms these regimes through weapons exports. Thereby, China not only stabilizes authoritarian rule but also escalates human rights abuses committed by these governments.³ While NGOs blame China for strengthening dictatorships, they do not explain why it selects these countries to be arms recipients.

If it uses weapons transfers as a political tool, China is fulfilling rational objectives, and just happens to be sowing the seeds of repression in the process. For example, China may use weapons as bargaining leverage to gain access rights to a state's natural resources.⁴ If China uses arms transfers to gain natural resources, then its goal is not to strong-arm dictatorial regimes but to fulfill its domestic, natural resource demands.

Still, China may unintentionally strengthen regimes hostile to the US through its arms

³Amnesty International. (2006). *China: secretive arms exports stroking conflict and repression*.

⁴This is also known as arms-for-access, which I will explore in the next chapter.

transfers. Before criticizing China on supporting authoritarian regimes, US policy makers must understand the broader objectives for doing so. Arms trade also bridges the gap between the international political economy and international security. Instead of just figuring out what motivates China to export weapons, I can also determine factors that fall in between economic reasons and security reasons.

Scholars suggest three major forces that act on China's foreign policy in the realm of arms trade: (1) financial motives, namely the generation of net revenue for military modernization, (2) the need to enhance regional security, and (3) the domestic economy's high demand for scarce, natural resources. Here, China may use weapons sales as leverage to gain valuable resources out of foreign actors. However, scholars are divided among these three schools of thoughts (Hyer 1992; Seekins 1997; Taylor 2006). The first school of thought argues that China treats arms as any other export commodity; it transfers arms to whichever country has the highest demand for defense products. The second school of thought, which claims that China seeks to enhance regional stability, relies mostly on evidence from the 1980's and from the early 1990's. The third argument, which suggests that arms allow China access to natural resources, features strong theoretical claims but weak empirical support to date.

I test whether arms-for-military modernization holds by analyzing the variations and inconsistencies in arms contracts in Chapter 3 and through providing an analysis of trends in Chapter 4. In Chapter 5, I conduct a multivariate regression analysis to determine whether a correlation exists among arms, investment, and energy assets as the arms-for-access model claims. I use case studies of China's dealings with two actors in Chapter 6 and Chapter 7 to ask what the quantitative data cannot answer: is there really a transfer of arms to receive oil? What is the time-line or political arrangements for trading arms for oil? The case

studies of Iran and Niger clarify how China's high demand for natural resources, primarily energy assets, drive it to arm particular countries. I demonstrate that the ability to invest long-term in another country's energy resources drives China to export arms to that state. Those arms, it is hoped, will act as a political tool to curry favor with the government and to secure the state from threats to China's assets in that country.

Data I need reliable information on China's contracts with its recipients to argue my claim above. I rely on the Arms Transfer Database of the Stockholm International Peace Research Institute (SIPRI) for information on Chinese arms transfers, details of contracts, and net revenues. SIPRI's Trade Register provides in-depth information on China's weapons exchanges and contracts. The Trade Register includes all transactions in which there is confirmation by SIPRI that deliveries had begun or an order was placed. The Trade Register also provides information on numbers ordered, weapon designation, weapon descriptions, year of order, and year of delivery. The Trade Register allows me to analyze these contracts and examine weapons contracts in the disaggregate (Chapter 3).

SIPRI's Import/Export dataset supply information on the net revenues of arms transferred annually, which is an estimation of the value of the arms. I must rely on estimates, because the actual costs are not publicly stated. Financial data on China, such as foreign direct investment (FDI) outflows and general trade data, are drawn from data sets from the National Bureau of Statistics of China. For FDI and trade statistics, the Bureau of Statistics provides annual data online that is organized by recipient or supplier country.

Limitations To understand China's motives, my ideal data would consist of secret interviews with top government officials. I would also have access to classified defense documents. Unfortunately, this is not a possibility, and I must discern China's motives from the ag-

gregate. My claims depend on limited armaments data, but many databases on arms sales have incomplete information. In other cases, the Chinese government releases inaccurate or misleading information. In addition, I am unable to find out whether China exhibits price discrimination in its weapon sales to different countries. This lack of information inhibits my ability to isolate weapons-for-cash scenarios. In those scenarios, I would expect China to sell a product to one country for a greater price than it sells to another country. Unfortunately, the most reliable source on arms transfers, SIPRI, only releases the estimated value of the sale and not actual sale statistics (those are not publicly released). This means my findings may be underestimated, not accounting for backdoor deals or highly controversial deals China made with recipients. My findings also do not capture the distinctive bargaining process between China and its recipients.

There are other limitations to my research.⁵ For foreign direct investment data, I rely solely on China's Bureau of Statistics and their online yearbooks. They are missing data, limiting my regression analysis to the years 1994-2007. This means that my findings could be skewed, as they only take into account China's investment patterns from the mid-90's onwards. Also, I may be unable to distinguish China's preference ordering here. China may sell weapons to a country simply to acquire revenue, but in the process it may gain access to natural resources or invest once it has acquired arms revenue. The observed results of China's arms sales may not allow me to make casual inferences about its true preferences.

I assume that China acts as a unitary actor throughout all arms sales transfers, foreign direct investment activity, and energy contracts. As I will discuss in Chapter 4, this assumption may not be entirely warranted for the time period I examine. Since the 1990's, the state-owned defense enterprises have reported to the civilian State Council instead of

⁵I do not know Chinese, and the language boundary limits which articles I can use. Fortunately, most documents were available in Chinese and English.

the Central Military Commission. For the state-owned enterprises that do report to the Central Military Commission, informal personal ties connect the defense industry with top civilian leadership. I show in Chapter 4 that the reorganization and formation of oversight departments within the civilian bureaucracy is evidence of China's government taking a more direct role in arms exports, particularly since the 1970's. The Chinese Communist Party can direct arms exports to support their broader foreign policy aims. Nevertheless, this unitary actor assumption limits insightful perspectives on arms trade. Another way to think about arms transfers is to consider the competition between private firms or motives of particular defense ministries. By assuming a single actor, I am not capturing a complex domestic situation of rivaling institutions and bureaucratic conflict.

Implications By understanding the motives behind arms sales, the US may have a better chance of addressing China's needs and reducing its reliance on repressive autocracies. If the international community fails to take action, China will continue to sell and supply arms to developing countries, many of which are currently engaged in civil conflicts. It would benefit policy makers of both China and the United States if the US could address the needs of China's primary economic objectives now. The US does not need to cut off China from its Third World energy suppliers. There are other potential policy responses, such as helping China optimize its energy use or explore alternative energy sources. Whatever the policy response, the US will be more successful if it has a firm understanding of China's motives for arms transfers.

An examination of Chinese arms can close the gap between the international political economy (IPE) and international security affairs. IPE focuses on the complex relationship of international relations and economics, while the international security discipline investigates

diplomatic and military affairs and their affect on the stability of the state. Arms sales span these normally distinct and separate areas of study; for IPE, they are trade commodities, but for international security affairs, they are blunt instruments for defense. Arms sales force a broader, more inclusive view of political science phenomena.

Chapter 2

Perspectives on China's Motives for Arms Sales

The previous chapter discussed the controversy surrounding China as an emerging arms supplier in the post-Cold War era. This chapter discusses the literature on previous and modern international arms transfer systems, and examines current literature that identifies possible motivations behind China's arms transfers.

2.1 International Arms Trade Literature Review

Scholars agree that most states export arms for one of three reasons. The main motivations for arms exportation include (1) profit generation, also known as the weapons-for-cash argument, (2) support of recipient governments, and (3) access to recipient goods, also known as arms-for-access. I refer to the first and third perspectives throughout the thesis as the weapons-for-cash and arms-for-access arguments respectively. Before exploring these perspectives, I present the current hierarchy of suppliers and related market forces. I discuss

the brief history of the international arms systems, as supplier behavior has evolved unique trends over the past century. Last, I discuss the body of literature dedicated to motivations of arms suppliers within the current system, assessing the relative strengths and weaknesses of these arguments.

2.1.1 Hierarchy of Suppliers and Market Forces

Scholars of international relations often refer to arms as a collective commodity of weapons. Yet, armaments refer to a diverse set of weaponry, vehicles, support systems, and munition. International-relations theorists argue that a hierarchy of weapons producers and exporters exist, each specializing in these different types of weapons.¹

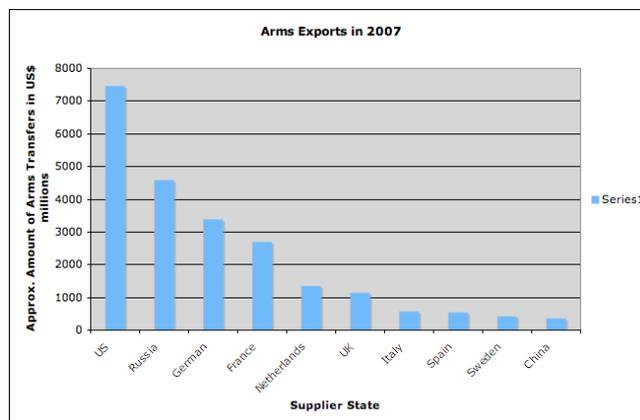


Figure 2.1: Top Arms Suppliers in 2007

First-tier suppliers like the United States produce a higher quality of weapons systems than second-tier or third-tier suppliers. In terms of technology and research and development (R&D) programs, first-tier suppliers have a comparative advantage over the second-tier

¹For most of the information on supplier hierarchy, I reference Schoeld's "Making Arms, Wasting Skills" (2007).

and third-tier suppliers. The first-tier arms trade advantage can be shown by their dominance of the market. Figure 2.1 shows that first-tier suppliers all generate over 1 billion USD per year, but second-tier suppliers generate under 1 billion USD per year. According to SIPRI, in 2007 the United States had a 31% share of arms sales. The second largest supplier of arms in 2007, Russia, greatly lagged behind the US with only a 19% share.

A dilemma arises when deciding to export advanced weapons; the state's desire to remain a militarily dominant power conflicts with its economic desire to distribute the very know-how and technology that made it superior. As the US seeks to keep an edge on any possible opponent, its "administrations historically have maintained a restrictive export policy except with respect to close allies" (Brzoska 1994, pp. 61). While other suppliers may be less selective with their arms recipients, states with military dominance, like the US, can undermine their security by selling off high-tech defense systems. Contrary to this view, the US exports arms extensively. Even in the highly red-tape field, the US sold arms to 58 countries in 2007, while China only sold to 17 countries (SIPRI 2008). Although most of the United States' sales do not consist of the newest defense equipment, the range of recipient states and huge profits generated shows that first-tier countries still dominate the arms market.

Second-tier suppliers, such as France, China, and the Netherlands, also have sophisticated, large-platform weapons programs, just not as sophisticated as those of the US. Large-platform weapons programs include missiles and their launch systems or war-fighters with support equipment. Second-tier countries have a comparative advantage in large-platform weapon systems, as they have relatively developed R&D programs, defense industries, and at least moderate military expenditures. For example, in comparison to the US defense expenditure of 546,786 million USD, France spends only 53,579 million USD on the military

each year and the Netherlands spends even less at 10 million USD. Despite these huge gaps, both first-tier and second-tier suppliers are often the prime contractors or suppliers to a foreign military customer. Last on the supplier hierarchy, there are third-tier or emerging suppliers. These states often act as subcontractors to more modernized and richer suppliers. Brazil, India, South Africa, and South Korea are all considered emerging suppliers. They have newly formed weapons production capabilities and relatively low volume of arms exports.

This hierarchy of arms suppliers is most easily understood through how much revenue each tier generates in arms sales per year. For example, South Korea only exported 214 million USD worth of armaments in 2007 and South Africa only sold 80 million USD worth of arms (SIPRI 2008). The second-tier supplier and focus of this discussion, China, sold 355 million USD amount of arms. Germany, a first-tier supplier, sold an impressive 3.4 billion USD worth of arms in 2007.

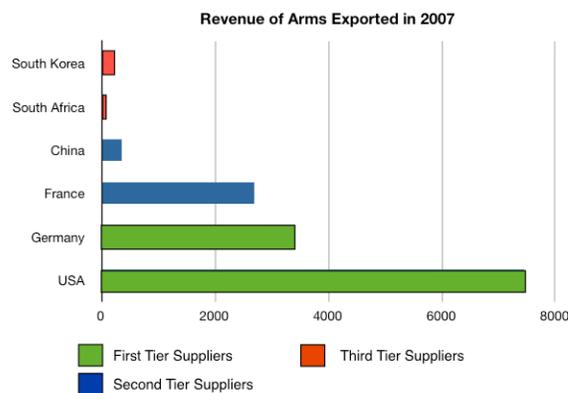


Figure 2.2: Arms suppliers in 2007 by tier and according to amount exported, data generated by *SIPRI* 2008

2.1.2 Potential Harm of Arms Exports

Since the rise of modern arms transfers theories, a significant amount of scholarship has been dedicated to the potential harm arms transfers have on the international system. Scholarship has given particular attention to the negative effects an inflow of arms have on global security and escalation levels within conflicts (Gates 1997; Keller 1995; Levine 1997). Keller used detailed quantitative analyses to show that the “global diffusion of military capability is a process of enormous consequence, for it enables states to wage war and to engage in other forms of repression and violence” (1995, pp. 19). He and other scholars, like Volker Krause, argue that arms transfers encourage arms races, aggravation of conflicts, and regional instability. This does not occur when arms are transferred in an alliance, because mutual defense agreements deter hostile governments.

Krause shows that client states in particular have an increased probability for engaging in war; “unless arms transfers are part of defense pacts, they aggravate and militarize information asymmetries, making their recipients more likely to experience militarized disputes” (2004, pp. 351). While defensive alliances with major powers may deter disputes, the export of arms from major powers to non-allied recipients increases the probability that a conflict will occur. The majority of China’s arms recipients are not formal allies, and many can be considered clients of China. Krause’s findings suggest that China may be destabilizing regions, as human rights organizations like Amnesty International claim.²

My interest, though, is what suppliers, not recipients, do. The general impact of arms transfers on international security is also a well-researched and documented area of arms transfer studies (Kinsella 2002; Krause 2004). While the impact of arms sales on violence is

²Amnesty International. (2006). *China: secretive arms exports stroking conflict and repression*. As the title suggests, the report classifies China as a type of global villain, bent on sustaining criminal violence and human rights abuses.

not the focus of my research, arms affect the recipient's security and potential for engaging in conflict. A state's military capabilities level come from *both* arms imports from a patron and its domestic defense industry.

2.1.3 Periods of International Arms Transfers

Scholars agree over the distinct periods of arms systems. These periods are the interwar period from 1930 to 1940, the Cold War or bipolar period from the 1940's to the 1980's, and the current, multipolar period from the end of the 1980's to the present.

Interwar Period Between the First and Second World War, a laissez-faire economy dominated the international arms system (Laurance 1992). Supplier states had minimal national controls and little regard for military or political consequences of arms sales on their recipients. In an attempt to re-build the military industry as quickly as possible after the war, states did not take into account the potential stabilizing or destabilizing effects of their weapons exports. Their collective disregard for the consequences of arms transfers on recipient states earned suppliers the nickname, "Merchants of Death" (Laurance 1992; Levine 1997).

Other characteristics of the Interwar period include a loose and dynamic set of arms suppliers. Each state had a high degree of arms production capabilities, allowing them to act independently from one another (Harkavy 1975). This independence changed during the Postwar era, in which regional logistics lines merged around the US and the USSR production needs. The declining multipolarity of the arms system meant that the number of major suppliers decreased and recipients had less options in terms of suppliers.

Cold War Period Emerging out of World War II, the Soviet Union and the United States had higher military capabilities than other states, whose defense industries and military infrastructures were devastated by the World War. Equipped with efficient production capabilities, the Soviet Union and the United States became the two dominant suppliers of weapons. The decolonization of the postwar world led to an increasing number of new, ill-prepared militaries. The number of suppliers decreased, and the number of potential clients increased.

Many scholars find the level of supplier bipolarity differentiates the Interwar period from the Postwar period. While the Interwar era was multipolar in terms of number of suppliers and power dispersion, the Postwar era saw the rise of bipolarity in terms of arms transfers (Laurance 1992; Kinsella 1998). Suppliers in the Interwar era exported arms primarily for economic gains and to support their domestic military industries. In contrast, the superpowers used arms as a political tool to extend their sphere of influence beyond their immediate region and to increase leverage over client states (Keller 1995, pp. 214; Kinsella 1998). In my analysis of China, I return to this concept of arms sales as a mechanism used by emerging powers to increase their leverage with potential trade partners and client states.

Arms transfers to developing states increased dramatically as the number of suppliers decreased during the Cold War (Laurance 1992). Current scholarship agrees that the arms trade correlated with the larger political system of the time; the US and the USSR used arms transfers as a way to control their client states' policies and political situations. In addition to patron-client relationships in arms sales, Kinsella finds in his research that "arms transfers gained additional momentum as the superpowers became invested in the security of their respective clients, many of whom were engaged in enduring regional rivalries" (2002,

pp. 213). While suppliers of the Interwar period had no regard for the consequences of arms exports on recipients, potential security outcomes during the Cold War became the most important aspect of weapons and defense trade.

Perhaps due to the prevalence of security concerns and the US-USSR rivalry, a greater amount of quantitative research has been dedicated to the Postwar arms system than to the Interwar or modern system. Kinsella admits that more studies have been conducted on supplier-recipient relationships in the Postwar era in comparison to studies on the Interwar and Post Cold War eras (1998, pp. 9). The greater number of studies on the Postwar period may simply be due to having more widely available and better data in comparison to the Interwar and modern arms system. The gap of quantitative research during the modern arms system in comparison to other eras is one of the reasons I chose to study China's arms exports.

Kinsella in 2002 conducts a quantitative analysis of arms transfers during the Cold War. He discovers that arms transfers by rival suppliers occur in patterns consistent with global security concerns and the arms race (pp. 208). In other words, he determines that major suppliers sell to countries strictly within their security blocs. Yet, this theory may only be relevant to the Cold War. As two rival superpowers no longer dominate the international community, security blocs may hold less influence over the transfer of weapons.

Post-Cold War Era Scholars classify the current arms trade system as one of multipolarity and declining hegemonic alliances. Client states no longer rely on one of the superpowers for arms. The United States remains a dominant supplier in the new system, but the USSR share of the arms transfer market decreased dramatically in 1990 (Laurance 1992; Levine 1997). The transition was abrupt; "In 1987, the USSR was the leading supplier with around

a third of the market, and the USA had a quarter. By the mid-1990s the USA had almost half the market and the Russians under 10%..." (Levine 1997, pp. 337). Russia could not stop new arms producers and suppliers from entering the international market.

These new suppliers, while individually not as large as the US, are entering the market at an alarming rate: "There are an estimated 1,300 arms companies in almost 100 countries" (Boyd 2008). Data on suppliers from the Stockholm International Peace Research Institute (2008) support such claims; some of the new arms-exporting states include Israel, Singapore, the Netherlands, and China. These second-tier states differ from the first tier suppliers in that they supply a larger percentage of arms to countries engaged in conflicts (Laurance 1992, pp. 131). Unlike the major powers that appear more sensitive to being aligned with local or regional conflicts, the second tier suppliers are less restrictive in their exports. They sell more openly to states engaged in conflicts. It could be that states engaged in conflicts are unwanted arms partners, unable to find a supplier patron.

Other marked differences in the Postwar and the Post-Cold War system include the motivations of suppliers for transferring arms. According to Laurance and Kinsella (1998), arms exports are used less often by supplying states to gain strategic access to a recipient's goods or services (pp. 159). Supplier states use arms like any any other export, rather than using them for securing alliances, supporting other governments, or gaining trade access. Like in the interwar system, current suppliers are motivated by profit to transfer arms rather than use arms as a purely political instrument of the state (Boyd 2007; Confer 2008). The national government continues to be the main actor, but private firms, regionalized industries, and the effects of globalization also play important roles. Globalization of arms trade means that there is greater access to weapons and weapons systems. The arms trade is more efficient (Keller 1998); more arms are delivered to more recipients. Globalization

increases the distribution and procurement of arms as well.

2.1.4 Supplier Motivations for Arms Transfers in the New System

The current arms suppliers may be categorized as either old suppliers (those who supplied weapons in the Cold War era) and new suppliers - those who entered the weapons market after the collapse of the USSR. New suppliers differ from the traditional arms suppliers in their behavior and interaction with their recipients (Boyd 2007; Harkavy 1975; Laurance 1997). Theorists Harkavy, Laurance, and Kinsella all agree that suppliers of the new system have had to adapt to a more diversified and competitive system. Recipients are less dependent on any single supplier for arms support. Not to say that arms from one supplier are perfect substitutes for arms from another supplier, but rather within each tier of suppliers and within each subset of weapons there exist more options for the recipients.

Scholarship on supplier behavior in the post-Cold War arms system also disagrees over the primary motivation for sales. Most scholars agree that arms policies are multidimensional; they take into account political, security, and economic considerations. SIPRI creates broad categorical descriptions of suppliers: restrictive, industrial, and hegemonic (Harkavy 1975). Restrictive suppliers do not sell arms to potentially aggressive states or unstable regions, as they are highly unwilling to be pulled into international or local conflicts. In contrast to restrictive suppliers, the promise of large profits drive industrial states to export arms, while hegemonic states transfer arms to expand their sphere of influence and gain high levels of leverage over client states (Kinsella 1998, pp. 9). Despite SIPRI's attempt to create these categories of suppliers, there is still little agreement as to what motivates suppliers.

The most studied school of thought supports the weapons-for-cash hypothesis.

These scholars believe that supplier states in the current system export arms mostly for financial incentives (Boyd 2008; Kinsella 1998). Boyd's interviews with arms negotiators support the claim that governments have moved away from selling arms to achieve foreign policy objectives, as in the Cold War, and stress the economic benefits instead (2008). While weapons-for-cash arguments were not as relevant to the Cold War system, scholarship on supplier motivations does support this weapons-for-cash theory in the modern era, particularly in relation to second-tier, developing suppliers.

Laurance suggests that exporting arms for financial gain is a legitimate national objective (1992, pp. 163). The weapons-for-cash hypothesis may then also explain why so many of the new suppliers such as China sell to developing, "rogue" recipients. After all, these states do not have the infrastructure for arms production, nor are they politically aligned with the classic major arms suppliers, such as the United States (Grimmett 2007). Kinsella and Laurance argue that these recipients offer the new suppliers the only thing they can, money.

Suppliers may also use arms exports to increase bargaining power with a recipient state.

Some scholars believe that arms sales are used "by a supplier government to alter the policy of the buyer government in conformity with desired goals of a supplier" (Grant 2007, pp. 8). In the Cold War system, the United States and the USSR exported defense articles to achieve leverage with client states. In this scenario, the supplier has a comparative advantage over its partner state in terms of arms production. This comparative advantage happens for a variety of reasons. The supplier could set aside a greater proportion of GNP for military expenditure, or have advantages in technology. A supplier

offers to sell weapons to a country that cannot produce them or would produce them domestically at a much higher price. The recipient's reliance on its supplier for weapons gives the supplier an edge in negotiations.

Many arms transfers fit this predominately Cold War model. One example is the Russian-Iranian trade between 1990 and 2007. Despite political costs incurred from associating with Iran on arms contracts, Russia exported to Iran an estimated 3.3 billion dollars worth of defense commodities since the fall of the USSR (SIPRI 2008). In this instance, Russia used arms as a way to bargain with Iran (Beehner 2006). The Arms Control Association, a think-tank based in Washington D.C., claims that Russia transfer arms to influence Iran's trade and security policies. Russia's expansion commercially and politically into the Middle East helps it secure future oil deals and security partners (Beehner 2006). SIPRI classifies this form of supplier behavior as semi-hegemonic or hegemonic. Yet, this type of hegemonic behavior does not appear as dominant in the current system as industrial behavior, which exports weapons simply to make a profit.

This overview of arms trade systems has shown that the suppliers should display behaviors unique to the system and time period. The dominant type of supplier behavior in the current system is considered industrial behavior; suppliers sell weapons to gain financial benefits. Other expected behaviors include selling weapons to indirectly support security alliances and, to a lesser extent, using weapons sales to increase bargaining power with another state.

2.2 Perspectives on China's Motives for Arms Sales in the Current System

I analyze the state of research on China's arms transfers since the end of the Cold War. I identify three schools of thought on supplier behavior within the China case, all of which are heavily drawn from international-relations theories shown above. I also assess the relative strengths and weaknesses of present scholarship.

2.2.1 PRC Economic Objectives

During the 1990's, many scholars thought the answer was simple: sales translate into revenue, so China's desire for profits is an efficient explanation for arms sales' destinations and policies (Eikenberry 1995; Hyer 1992). Through an analysis of China's armament sales in the 1980's, this school of thought suggests that China has purely economic objectives, which encourage it to export arms to whichever country has the greatest demand (Hyer 1992). Furthermore, this argument fits with the theory that second-tier suppliers are industrial in nature and sell weapons to make a profit for their military industry.

A still communist nation in many respects, China differs from many of the other suppliers. Countries like the United States and even other second-tier suppliers like France have a military-industrial complex consisting of the government, military, and an oligopoly of privately-owned defense enterprises. A still communist nation in many respects, China's military-industrial complex is centralized by the Ministry of Foreign Affairs (MFA) under the State Council (Medeiros 2005). China has state-owned defense enterprises, and there exist informal connections between those in the Politburo and those in the defense industry. As I will explain in greater detail in Chapter 4, understanding the changing relationship between the military and arms sales is vital to understanding the changing use of arms sales

in China's foreign policy.

Arms Sales for Military Modernization These theorists suggest that like other second-tier suppliers, China uses profit generated from weapons transfers to help fund domestic military-modernization programs. This argument is a subset of the weapons-for-cash argument, and like the weapons-for-cash theories, most of these military modernization arguments rely on evidence from the 1980's and from the early 1990's.

As a country emerging from the Cold War, China witnessed the Gulf War and the United States' highly-developed warfare technologies. During this period, China had incentives to sell weapons to gain profits, which it could redirect into research and development programs for modern defense systems. In the 1980's, prominent Chinese leaders began commercialization of the military, spurring the production of weapons that could be sold to foreign governments. Chinese defense companies "more and more [were] struggling to turn themselves into a for-profit corporation" (Karmel 1997, pp. 103). The PLA entered into production defense articles to increase funds for the military (CSIS 2003). Under the Politburo's leadership as of the late 1980's, the army production and sales group, Poly Tech Corporations, invested its energy into increasing the military budget. Empirical data from the early 1980's demonstrates that there *was* strong interdependence between the domestic military production industry and the PRC defense budget (Hyer 1992).

This hypothesis is substantiated by explicit evidence that arms sales created extra-budgetary revenue for the PRC defense ministries. The defense ministries had a larger budget for creating a high-tech and advanced military. Eric Hyer suggests that the PRC's first priority is hard-currency earnings (1992). While China may use these earnings in other domestic institutions, the weapons-for-cash policy appears to predominately encourage the

sale of armaments.

Elkenberry also reminds us the economic advantage of arms sales for China as it emerged out of the Cold War. He states that “profit earned offshore [is] retained by the military and relevant manufacturing firms, further elevating the importance of weapons exports” (Elkenberry 1995, pp. 23). Like Hyer, Elkenberry shows the dependence of China’s defense industry on its arms exports; the defense manufacturing industry sells arms to foreign actors, and China uses that profit to further spending on its own defense (1995). China’s reliance on arms sales to fund military programs shows that revenue-generation is not the sole motivational factor for armament transfers, but specific policy goals, such as modernizing the defense sector, encourage the strategic selling of weapons. This implies that China has some comparative advantage in the selling of weapons, at least in terms of second-tier products like missiles and low-tech fighter aircraft.

China’s use of arms in the 1980’s to gain revenue for the military supports the broader international-relations theory that second-tier suppliers sell weapons to generate cash earnings. While these theorists state that this is the expected behavior of second-tier suppliers even in the twenty-first century, the articles on China as a weapons-for-cash supplier are mostly from the early 1990’s and rely on empirical data from the 1980’s. As I explore in Chapter 3 and Chapter 4, the most recent data on weapons exports sales do not suggest that China exports weapons to gain revenue for the military. Due to the lack of quantitative analysis in current literature, I analyze in later chapters the sale of weapons in comparison to the budget of the military through the 1990’s until 2007. Hopefully, the data will show that China’s arms behavior has changed since the 1980’s.

Many foreign policy scholars now insist that China’s arms trade policies are more complex than this school of thought, weapons-for-cash, implies (Gill, 2000; Johnston, 1996;

Wang, 2000). Eikenberry (1995) admits that national security interests and regional military interests stimulate China to sell armaments to strategically-chosen recipients. Since the weapons-for-cash hypothesis oversimplifies China's reasons for transferring arms, I will now discuss the other, more nuanced factors that shape its foreign policies.

2.2.2 Alternative Theories

While scholars agree that international market forces play a role in motivating China to sell arms, they disagree over what other factors influence the transfer of Chinese arms. Is China "hegemonic" (meaning it sells arms for increased leverage over a client), "industrial" (it sells arms mostly to receive profits), or some other combination in its sales? These other factors may be difficult to distinguish from revenue generation and from another. If gains profits from sales, it will become a stronger financial power. It may use this financial power to gain leverage over a client. I present possible solutions for this collinearity problem in the following chapters.

As global market demands continue to stimulate trade, I now examine other schools of thought concerning China's weapons export regime. I organize my discussion by nature of the theories, namely whether determinants of arms sales are domestic, regional or international in nature. Present scholarship currently offers three schools of thought on China's trade regime; (1) arms sales are revenue generators for the domestic modernization efforts, (2) arms sales are sold to neighboring states to ensure regional security, and (3) arms sales are a way for China to achieve its hegemonic objectives. Based on this present scholarship, I will demonstrate that determinants other than market demand and supply forces influence armament exports.

Arms sales are revenue generators for defensive modernization efforts. Both Hyer and Elkenberry mention the generation of capital for domestic military forces as a motivation for foreign military sales (FMS), albeit a minor one. Other scholars suggest that China's domestic defense industry is the key driver for armament transfers, not a minor factor. Many scholars investigating the current arms transfer system support this theory that a supplier uses weapons sales to directly increase its military industrial base (Bickford 1994; Confer 2008). According to these scholars, China would fit in as a prime example of a new, second-tier supplier in the current system.

Richard Bitzinger also supports the theory that PLA modernization objectives encourage China to sell arms. Bitzinger (1992) states that overseas arms sales become an important mean of funding and aiding in that modernization. Besides simply generating revenue, the process of arms transfers allows China access to a wide range of foreign capital, including new information and technology. China then uses foreign technology to upgrade the capabilities of the People's Liberation Army (PLA). Bitzinger also shows why China needs to import advanced technology. Since the 1970's, the PLA has been confronted by declining resources and a poorly administered research and development system. Limited spending in R&D make it difficult for China to achieve technological innovation domestically (Bitzinger 1992).

China's economy has grown rapidly since the 1990's and the publication of Bitzinger's article. Does his claim still stand that China finds it difficult to achieve technological innovation domestically? More importantly, are arms still used as a means to access other technologies? Some scholars state that China is emerging as a high tech superstate, based on its increasing research and development expenditures, coupled with exports of high tech products. High tech exports have increased by 100% since 1989 (IIE 2006). If China is

becoming a more advanced state, then the PLA has the potential for further technology upgrades without foreign assistance or technology transfers.

However, this concept of China rising as an information and technology superstate is met with much criticism. Based on information attained by the Institute for Defense and Disarmament Studies, Frank W. Moore claims that both China's nuclear forces and conventional forces are "at a very low technology starting point" in comparison to Western military capabilities. Even in terms of other defense technology, Moore states that "the results produced by the Chinese aircraft industry to date have not been promising" (2000). Though China's economy has grown since the 1990's, the PLA is still having difficulty modernizing its forces and will continue to rely on defense technology imports.

Bitzinger is not the only scholar to argue that PLA modernization efforts and a strict budget constraint drive up armament sales. Thomas J. Bickford has examined the PLA's economic activities since 1979, during which the military first faced a declining budget and fund reallocation (1994). He concludes that the lack of direct government funds severely hindered modernization efforts in the 1980's, leading the PLA to seek out additional avenues of revenue. Bickford explains that the armament sales created needed extra-budgetary revenue. He exhibits confidence in his hypothesis by pointing out that "arms sales are the largest single source of the military's extra-budgetary income" (1994).

Bickford's argument that PLA budgetary objectives drive up China's armament sales is in the same camp as Hyer and Eikenberry's economy arguments; both view arms transfers as revenue generating processes. However, the Hyer-Eikenberry arguments envision China as having one homogenous market seeking growth, when in fact, as Bickford suggests, China has a complex domestic market. The budgetary objectives of the PLA do not necessarily correspond with economic objectives or trends of the Chinese civil market. The specificity in

Bickford's arms-for-PLA modernization argument separates it from the simplified weapons-for-cash argument proposed by Hyer and Eikenberry.

Bates Gill agrees with Bickford, explaining that "the defense industries and PLA trading companies have clear incentives to sell arms, because in the face of government cutbacks they can generate hard currency while continuing to demonstrate their technical prowess" (1998, pp. 75). These scholars all use evidence from the 1980's and the political context of the early 1990's to argue that the modernization of the fund-starved military drives up exports. I now explore recent scholarly arguments, which claim other domestic needs motivate these sales.

Weapons sales are a means for acquiring resources. Another camp of scholarly literature suggests that China's need for natural resources drives the transfer of armaments (Carmody 2007; Payne 1998; Taylor 2006). Resource-acquisition arguments emphasize the mutually beneficial relationship China has with corrupt African governments. Through weapons transfers, China gains access to Africa's abundant natural resources, which it needs because of its rapidly expanding economy and infrastructure. While China gains access to oil and minerals, African countries gain an influential partner in the United Nations and, more importantly, a liaison to the international community's Great Powers (Payne 1998, p. 868).

Payne's argument explains that African states strongly support this trade agreement but fails to show why China transfers conventional weapons over transferring exports with a lower political cost. In "China's Oil Diplomacy in Africa," Ian Taylor conducts a case study on Sino-Sudan trade relations (2006). The Sino-Sudan example is particularly intriguing because of the magnitude of armament sales (estimated at over 4 billion USD) and because

of Sudan's extensive human right abuses (SIPRI 2007). Although China incurs political costs by selling to Sudan, it is wholly disinterested in the accountability of recipient states or human rights. China's foreign policy continues to emphasize sovereignty principles as a justification for non-intervention with trade partners, even those that have repressive regimes (Taylor 2006).

The arms-for-access literature does more than show that China trades with autocratic, African regimes like Sudan and Zimbabwe. Arms-for-access hypotheses also show that human rights violations by other states do not impact China's foreign policy decisions in any substantial way. A variety of case studies use empirical data to highlight that human rights violations by African states in no way discourage China's exporting of weapons (Carmody 2007; Payne 1998; Taylor 2006). This finding should not be surprising, because China even now violates international human rights laws and norms. Furthermore, most states (even the United States) have a gap between their domestic practices and foreign policies.

The CCP does not perceive that international human rights laws have legitimacy over its internal or external affairs (HRW 2007). Through a brief historical analysis, Payne shows that China is "the only major arms-exporting power that has not entered into any multilateral agreement setting out principles. . . to guide export licensing decisions" (pp. 869, 2006). As I explore in a case study of China-Niger relations in Chapter 6, China's policies toward Africa suggest that the acquisition of natural resources motivates it to increase leverage with these states through the exportation of arms.

Resource acquisition arguments are part of a broader school of thought, which views China's industrialization and urbanization efforts as the highest priority on the CCP's agenda. Many scholarly texts on Chinese arms trade view PLA buildup efforts, domestic modernization, and resource acquisition efforts under the umbrella term, "the Chinese mod-

ernization agenda.” As I aim to untangle the determinants of China’s supplier behavior, I distinguish between purely defensive modernization efforts and broader domestic needs. However, these two determinants are interconnected and part of domestic objectives. While previously investigating domestic objectives, I now explore external security aims and their connections with exporting arms.

Armaments sales are part of a strategy for ensuring security and regional stability. E.Y. Woon moves beyond an economic-centric analysis and examines geopolitical influences on China’s armament exports after the Cold War. She begins by reviewing the PRC-US military relations and data on Chinese arms sales. She concludes that China has normalized relations with other states partially through exported armaments (Woon 1989). Woon suggests that China has either normalized relations with states or, if normalization was previously established, achieved other foreign policy goals with them through armament transfers. For example, China chose to sell armaments to Pakistan, because of China and Pakistan’s shared security concerns over India. Yet, she acknowledges that PRC financial concerns played a role (Woon 1989).

Providing a parallel demonstration of her theory, Woon explains that China conducted a similar foreign policy in the case of Thailand. The PRC exported arms to Thailand, because both countries supported Cambodian resistance against Vietnam, a neighbor China considered extremely hostile at that time (Woon 1989). This does not necessarily contradict hypotheses that consider armament transfers financially motivated. (Seekins 1997; Woon 1989). Transfers that use bilateral weapons trade to ensure security have been “quite successful in extracting political gains from this monetary program” (Woon 1989, pp. 610). By incorporating financial considerations, this theory demonstrates that security objectives

have an impact on arms trade.

Woon only gives a small number of case studies in her assessment of China's armament transfers. The small sample is problematic because it decreases her theory's generalizability. Is her argument verifiable that China sells arms primarily for regional security concerns and not as part of domestic modernization agenda?

Other scholarly literature supports her theories and use examples comparative to hers. Seekins' case study on Sino-Myanmar trade demonstrates the significance of regional security concerns in relation to China's foreign policies (1997). He notes that China views Myanmar as a strategic location. Upper Myanmar has extensive river systems that allow PLA soldiers and supplies in Yunnan with easy access to the Indian Ocean. In showing Myanmar's geopolitical significance, Seekins reminds his readers of the magnitude of exports; the PRC has sold as much as one billion USD worth of weapons and other defense materials to Myanmar (1997). Taking into account Seekins' and Woon's arguments, scholarly literature presents case studies suggestive of geopolitical interests driving PRC arms exports. Despite problems associated with small-*n* studies, there is evidence that geopolitical concerns influence China's armament policies.

Arms transfers are a means for China to achieve hegemonic objectives. Seekins acknowledges that regional security concerns are not the only factors for China's armament sales. He theorizes that China's expanding military presence in Myanmar and other Asian states is evidence of a broader goal, to emerge as a hegemonic power via security and soft power such as trade (1997). China's military upgrading, economic growth, and domestic modernization efforts hint that it is on a trajectory to become a regional power.

A number of scholars propose a transition-of-power theory, claiming that China acquires

a new superpower presence in Asia as the United States presence in the region declines (Lieberthal 2004; Roy 1994). This theory proposes that China's political and security influences could expand beyond Asia. Depending on the continued growth of its domestic economy, it could very well be one of the most influential states in the international arena (Lieberthal 2004; Ross 1996). Empirical evidence already suggests that China has become the Asian center of exports for the US and Europe (Lieberthal 2004). Is China really attempting to become the next superpower?

Even if China uses arms sales to gain security and political influence over other Asian states, disagreement exists in scholarship over the likelihood of China emerging as a superpower like the United States. Countering transition-of-power theories proposed by Ross and Lieberthal, another group of scholars suggests that China is becoming more concerned with integrating into the world economy. It has become increasingly involved in multilateral trade agreements and international organizations (Bijian 2005; Wang 2008). These scholars all cite specifically China's ascension to the World Trade Organization (WTO) and the Asian Development Bank as proof of its willingness to engage in and encourage multilateralism (Wang 2008).

Yet, hegemony arguments presuppose that China has the intentions of becoming a hard-line, international superpower. This claim contradicts President Hu Jintao's "Peaceful Rise" campaign, which seeks to engage the country in non-hostile international trade. China's current engagement with the WTO and Asian Development Bank supports President Hu's statements. In addition, analytical arguments suggest that China depends on cooperation with the international community to accomplish economic growth objectives (Bijian 2005; Wang 2008). Last, there is a lack of consensus in present scholarship over the probability of China emerging as an international power. For these reasons, I consider the transition-

of-power/hegemony argument problematic in regards to arms exports and less convincing than other proposed hypotheses explored in this overview of perspectives on China's arms exports.

2.2.3 Conclusion

Arms transfer have negative effects at the local, regional and global level; arms transfers heighten the lethality of armed forces and increase the probability of conflict. These negative effects remain relatively similar from one period to the next, but patterns of arms supplier behavior has changed throughout the twentieth century. I outlined these changing behaviors through analyzing major periods of arms transfers: the interwar era, the Cold War era, and the post-Cold War or modern era. In the modern era, there are few first-tier suppliers, with many second-tier suppliers selling weapons primarily to make a profit and to support their new military-industrial complexes.

I explored perspectives on China's supplier behavior. This chapter presented three schools of thought about the determinants for China's armament export policies. The first school of thought argues that financial incentives influence export policies more than other factors. The second school of thought contests that regional security is key. Last, I conducted an overview of arms-for-access and transition-of-power theories, which argue that China's rise to becoming a superpower drives its arms exports to security partners. Each hypothesis displays weaknesses. Financial incentives appear most relevant during China's 1980 commercialization of the military industry. Transition-of-power arguments lack empirical evidence. Regional security arguments seem limited to a small number of cases, and arms-for-access has limited scholarly research.

Nevertheless, both the regional security hypothesis and the arms-for-access hypothesis

are plausible explanations for why China exports arms to developing, autocratic regimes. Based on these two “winning” arguments, I propose a synthetic alternative; while the need for revenue once motivated arms sales, the dual demands of acquiring natural resources and securing regional stability significantly influence China’s foreign policies, particularly its arms export policies. These factors drive the amount of arms traded with specific regimes and with whom China trades.

It appears that most China-based arms research does not include strong quantitative evidence to explain its supplier behavior in the 1990’s and 21st century. By conducting quantitative analyses combined with qualitative insights in the following chapters, I will determine what are China’s dominant supplier patterns, and whether it upholds or challenges accepted theories on second-tier supplier behavior.

Chapter 3

Opening the Black Box of China's Arms Contracts

3.1 Introduction

Three schools of thought emerge to explain China's armament export policies and how China's supplier behavior fits into the international arms system. The first school of thought argues that efforts to modernize the military and to gain profit for the People's Liberation Army (PLA) influence export policies more than other factors. The other schools state that non-financial related concerns, like regional security and energy demands, are key. Based on these two arguments, I proposed a synthetic alternative; in addition to the need to generate revenue, the demand for natural resource acquisitions and shared security goals significantly influence China's foreign policies, particularly its arms export policy.

My review in the previous chapter also shows that China-based arms research does not include strong quantitative evidence to support claims concerning supplier behavior. Most of the research is based on case studies, not time-series data or overviews of contracts

with recipients. By conducting empirical analyses, then confirming those results through studies on a single dyadic interaction between recipient and supplier, I determine China's dominant supplier patterns, and whether it upholds or challenges accepted theories on the current international arms system - the current theory being that second-tier suppliers export weapons to generate profits and support domestic defense industries.

3.2 Methodology

I study the imports of arms recipients in the disaggregate. By the disaggregate, I mean analyzing not only the annual sale of weapons but also each arms deal formed between China and its recipients. Sometimes China signs multiple contracts for a recipient within the same year. I examine the type of weapons sold to one country over another and the type of contract issued. The disaggregated approach has many advantages that can compliment my regression model and other aggregated approaches in the following chapters. This method breaks down my major weapons sales data into smaller groups that can be more easily inspected for outliers and unique contracts. It is probable that each trade deal has a unique combination of factors involved. The relatively small population of recipient states (41) made this approach feasible.

The subcategories I analyzed within each contract were:

- number of weapons ordered versus delivered
- type of weapons
- year ordered versus delivered
- deals in which the recipient was involved in production
- one-time arms deal versus continuous contracts
- China as sole supplier, dominant supplier or one of multiple suppliers

I generated the arms import data through the Stockholm International Peace Research Institute, which is continuously updated as new information becomes available. I sorted the recipients who had defense contracts with China. These cover exclusively armament deals made with China for the years 1990 to 2007.

3.3 My Expectations

I generally expect that China's policy aims vary according to recipient. This is consistent with the alternatives I proposed in Chapter 2; China may sell arms to some countries to gain access to natural resources, and it may sell arms to another group of countries that it has shared security concerns with. This is not to say that being a natural resource provider and security partner are mutually exclusive; rather for purposes of this study, I first separate my expectations for security partners and natural resource providers. Then, I explore the case for when an arms recipient may fulfill many of China's goals.

Expectation 1: For China's strategic long-term partners, offset projects and variance in arms exports should be observed together. In cases of high volume trade and a diverse range of weapons products traded, I expect to observe more instances of China conducting offset projects with that partner. Offset projects are also known as "industrial participation," a common requirement for arms-supplying governments or defense companies. Industrial participation ensures reciprocal business transactions, normally consisting of an exchange of technology or resources across a common industry. And in this case - the defense industry.

It is thought that "second-tier arms producing countries frequently see offsets as a magic

bullet that will permit their defense industry to achieve a great leap forward in capability and capacity” (Confer 2008). Offset projects offered by the supplier ensure development of industry in the recipient state. When selling a variety of defense articles, China should work directly with the recipient government to help produce these weapons in-state. When China assists production of weapons in-state, it signals to the recipient its commitment to arms agreements and the partnership.

In contrast to those expectations listed above, I do *not* expect China to engage in offset projects with those recipients who offer no strategic partnership in trade or security. Offset projects require an immense amount of political and financial capital from the supplier, in this case China, as the supplier has to move resources and infrastructure abroad. Offset projects also incur long-term costs and take years to complete.

Expectation 2: Patterns of continuous trade and dominant-supplier status appear with countries that have substantial general trade relations with China.

Defense articles are a unique type of trade commodity, but they are still a trade commodity that follows laws of international supply and demand. As in China’s case, international trade represents a significant share of the gross domestic product (GDP) and a major source of economic revenue for the state. China’s current trade surplus accounts for approximately 7-9% of its GDP (WTO 2006). China’s defense exports can be analyzed within the context of its general exports, particularly in regards to high-volume trading patterns. This expectation follows from the arms-for-cash hypothesis explored in the last chapter, which argues that weapons sales are another way to generate profit.

I expect China to export weapons regularly to these recipients with which it has a history of robust trade. China’s continuous supply of arms to that country reflect the larger

trading pattern between it and key partners. Where arms trade reflects a strong general trade relationship, I do not expect to find huge breaks between arms contracts, nor would I expect to find a one-time arms trade transfer. A discontinuous pattern of contracts and low-volume transfers do not suggest strong trade relations. A stable flow of arms should reflect high-volume trade patterns between China and its trade partners. While there be other motivations, the most likely reason for China to export arms to an already-prominent trade partner is to simply gain further profit.

Expectation 3: When instances of single-sale arms transfers occur, China may be rewarding or incentivizing recipients to allow it strategic access to their resources. China gains few profits in one-time sales of arms to a recipient. I do not expect profits alone to motivate China to transfer arms with those one-time recipients. As defined in the previous chapter, the arms-for-access argument states that suppliers use weapons exports as a reward for recipients who supply them with scarce resources. The main benefit of exporting arms is not the profit earned from the transaction, but the acquisition of natural resources. More than any other country, China has a high demand for resources, which it needs to feed its ever-enlarging population and industries. China's defense articles, which other countries cannot produce, incentivize recipients to grant it strategic access to its resources, like oil fields.

These access rights consist of limited trade deals between governments, the selling of resource-rich land to foreign corporations, or a strategic partnership for development of those resources. For example, China purchased Sudan's oil fields in the mid-1990's. The Chinese government does not own the fields directly, but China's state-owned oil company, the China National Petroleum Corporation, legally owns and controls development of the

fields in southern Darfur and in the Melut Basin (Konings 2007, pp. 353). The China National Petroleum Corporation gained access to the oil fields in 1996. In 1997, Sudan received an arms shipment from China worth an estimated 66 million USD (SIPRI 2008). I explore these arms-for-oil transactions in Chapter 6 and Chapter 7.

In arms-for-access instances, I expect to find not continuous arms transfers, but one-time sales or intermittent deals. These intermittent deals are a direct reward for a state cooperating with China. I also expect the direct profit from these contracts to be less than other contracts. China is not selling weapons to these particular recipients to make a short-term profit, but to gain greater, longer-term benefits. However, a lag time may exist between the resource acquisitions and these arms contracts. This could confound my ability to prove the hypothesis. As opposed to domestic policies, the development and implementation of foreign policies requires a time-cycle of years, not months.

Limitations: Converging Goals lead to Converging Behaviors and Confounded

Results These expectations define distinct supplier behaviors I expect to observe in relation to a subset of contracts with recipient countries. For each hypothesis, I hope to see a defined set of recipient countries that do not overlap. In actuality, I expect instances in which China's goals for exporting arms may converge. In this case, I observe multiple symptomatic behaviors at work. For example, if China offers extensive breadth of weaponry with a state (as in Expectation 1) and also shows continuous trade with that state (as in Expectation 2), I will interpret this behavior as both an attempt to generate profits and an attempt to gain favor with the other government. Yet, it will be difficult to measure which goal influences weapons transfer the most. Motivations are not easy to identify. Deter-

mining the magnitude of each motivation presents challenges to this research.¹ If I cannot identify the magnitude of each factor, then I will be unable to determine which force truly drives China's arms exports.

3.4 Reality of China's Arms Contracts

The disaggregated data in general challenged some of my expectations and displayed patterns unique to China as a second-tier supplier. My five most important findings can be summarized as follows:

1. China is a relatively successful second-tier supplier in the current arms system.
2. A significant number of recipients generate a negligible amount of revenue for China, while a very select group of recipients generate most of the revenue.
3. China trades with many countries that it has no formal alliances with but indirect security relations to.
4. China does not export arms to those it has strong general trade relations with.
5. China transfers a substantial amount of arms to countries it owns energy assets in.

1. China's arms sales are large in comparison to other second-tier suppliers. I had wrongly expected to receive a value larger than 11.4 billion USD over a 17 year period for the projected value of arms exports. I mistakenly compared China to the US, whose sales totaled 180 billion USD over the same 17 year period. However, the United States is a

¹I measure the magnitude of each factor in Chapter 5, where I conduct a regression analysis on China's annual investment.

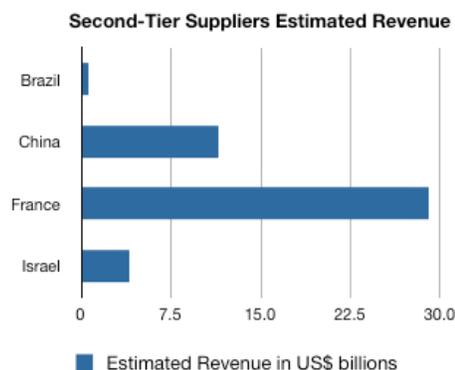


Figure 3.1: Revenue of second-tier arms exporters from 1990 to 2007, based on SIPRI data

first-tier supplier and, as shown in the previous chapter, first-tier suppliers generate greater revenue.

I then compare China's expected revenue of sales to that of other second-tier suppliers from 1990 to 2007. I examine other countries considered second-tier suppliers, namely France, Brazil, and Israel (Wolf 1997). France totaled 29 billion USD, Israel exported only 4 billion USD, and Brazil exported a practically negligible 569 million USD. China is not exporting the most arms, but it is doing better than some of its second-tier competitors.

As this section is devoted to analyzing the disaggregate data, I will analyze the significance of this finding in the following chapter. Even with China being a successful second-tier arms exporter, I will show that arms sales are a sometimes negligible portion of its military budget and a small portion of its total exports. It still important that these values for arms contracts, both individually and in the aggregate, are relatively high in comparison to other second-tier suppliers, namely Brazil and Israel.

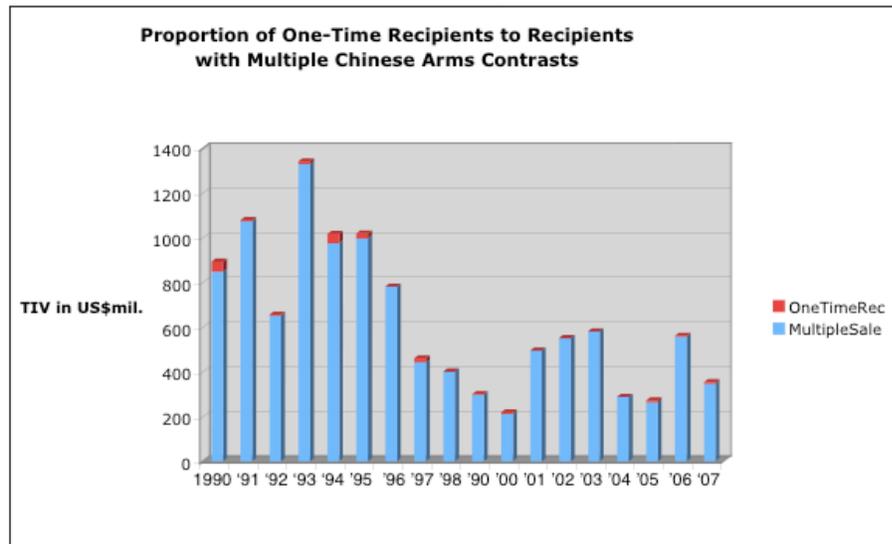


Figure 3.2: Contribution of one-time contracts with recipients versus multiple contracts per recipient

2. Arms Sales to One-Time Recipients: Far More Prevalent than Expected

Out of the 41 recipient states examined between 1990 and 2007, China had one-time arms transfers with 18 of the states or 44% of them. These countries were: Albania, Armenia, Bosnia-Herzegovina, Cambodia/Khmer Rouge, Congo, Eritrea, Ghana, Indonesia, Jordan, Kenya, Laos, Mali, Niger, Peru, Romania, Sierra Leone, Tunisia, and United Arab Emirates. This was a much larger number of one-time sale recipients than I had expected.

I had expected China to have one-time armament sales with a much smaller number of states because, as stated in the literature review, armament transfers have political costs associated with them and are more sensitive to international criticism than other commodities. Furthermore, these one-time sales do not result in that much revenue when compared with the profit China makes from its other arms recipients.

Based on data from SIPRI, the average revenue from each one-time sale is approximately 8 million USD. These one-time trade sales make up a total estimated revenue of 179 million USD between 1990 and 2007. Out of the China's total arms export revenue from 1990 to 2007, these one-time sales make up a measly 1.6%. Revenue generated from countries with which China has multiple contracts accounts for 97% of all profits. The unaccounted 1.3% is based on an unknown amount of weapon sales transactions from China to unknown recipients, based on SIPRI's available but somewhat incomplete data.

Beginning in the mid-1990's, contracts with one-time recipients generates an almost negligible amount of revenue. While between 1990 and 2007, China acquires 1.6% of arms profits from one-time sales, if I account for only one-time sales between 1994 to 2007 this number drops to 1.3%. Between 2001 and 2005, China does not engage in any arms contracts with a one-time recipient. This trend suggests that China decreases the practice of one-time sales over time. One-time sales are most dominant in the early 1990's, 1991 and 1994 specifically. 1991 is only one of two years where arms sales produce more than 1.1 billion USD in estimated revenue. In 1991, one-time sales account for 5% of the revenue generated from arms sales. I explore the significance of 1991 as an outlier in the next chapter.

In 1994, one-time sales account for about 4% of the overall worth of all contracts. One-time recipients are Cambodia, Bosnia-Herzegovina, Eritrea, Tunisia and the UAE. For some series of special circumstances, 1994 is the only year between that China traded arms with these states. The China National Petroleum Corporation also owns oil assets in Tunisia, although it did not sign an oil contract with Tunisia until a decade later. I did not expect this many one-time recipients, but the disaggregated data confirm other parts of my hypothesis; China does not have a strong general trade relationship with its one-time recipients. None of these one-time recipients are top-ten general trade partners with China

(Asian Development Bank 2008). In the next section, I explore the prevalent pattern of China engaging in multiple arms transfers with recipients whom it also has oil holdings with.

In terms of formal alliances, none of the one-time recipients have formal alliances with China. This suggests that China does not sell arms to these countries for conventional security reasons or to support its security partners. Also, China incurs political and production costs for a low overall profit. If it is *not* for the purpose of generating profit, China may fulfill other foreign policy goals through these contracts. I explore in Chapter 6 possible foreign policy goals that are fulfilled through contracts with one-time recipients.

One Time Recipient	Arms Imports in US\$ mil.
Albania	22
Armenia	2
Bosnia-Herzegovina	12
Cambodia/Khmer Rouge	10
Congo	1
Eritrea	6
Ghana	9
Indonesia	4
Jordan	8
Kenya	9
Laos	11
Mali	7
Nepal	1
Niger	<0.5
Peru	9
Romania	24
Sierra Leone	8
Tunisia	23
UAE	13
<i>Total</i>	<i>179</i>

3. The data in the disaggregate suggest that China trades with countries it has indirect security ties to. Some of the most diverse weapons sales and most valuable sales are offered to governments that China has no formal alliance with, but indirect security ties to. These countries include Bangladesh, Myanmar (Burma), Pakistan, and Sri Lanka. Weapons contracts with these states account for 6.2 billion USD or 56% of total revenue

generated from weapon sales. China is also the dominant supplier of arms for all four of these countries. In the cases of Bangladesh and Myanmar, China is followed closely by Russia as the second-largest supplier. This finding indicates that China has robust weapons trade with countries that it has security ties to but no formal alliance with. Bloc patterns also emerge in terms of suppliers. While China is the dominant supplier in each case, these countries rely on former USSR suppliers too. In all four cases, Russia and Ukraine are present as other major suppliers. The presence of arms blocs suggests that the current arms trade system has not disconnected itself from Cold War politics, where stronger blocs existed.

Cold War attributes of Chinese arms transfers contradict some claim explored in Chapter 2, specifically that the current system has moved away from the bipolar and bloc structure (Boyd 2007; Confer 2008). China and former USSR countries supply weapons to the same group of recipients, so not all aspects of the Cold War have vanished. China's supplier behavior may be governed by Cold War-like motivations. These motivations include using arms as a security and bargaining mechanism, not a profit-generating tool.

4. The data show that China does not export arms to those it has strong general trade relations with. This is not a surprising result, as most of China's trade partners are developed countries like the US, Germany, Japan, and South Korea. Only two of the arms recipients are also top general trade partners with China, Thailand and Iran. This means that general trade relationships are not replicated in the transfer of arms. According to statistics from the Asian Development Bank, China on average imports 569 million USD from Thailand annually and 4 trillion USD annually from Iran. Only in a limited number of cases, prolific arms trade reflects broader trade patterns and suggest financial motivations.

Yet, China has limited arms relations with other major trading partners, such as Venezuela, Yemen and Oman. China sold a small number of weapons systems to these countries, and these sales consist almost exclusively of support equipment.

The countries that confirmed my hypothesis, Iran and Thailand, have contracts with China for a diverse set of armaments and offset projects. China works with Iran and Thailand to help them develop defense products, anti-ship missiles and frigates respectively. A variety of support equipment and key weapon systems was exported to these countries between 1990 and 2007. These systems include anti-ship missiles, transport aircrafts, war-fighter aircrafts, surface-to-air missiles (SAM), and multiple rocket launcher (MRL) systems. To Thailand, China also sells anti-ship missiles, frigates, and radar. China is a one-stop shop for all of Thailand's and Iran's armaments needs.²

China sells a significant number of arms to countries it owns oil and gas assets in. Surprisingly, four of the forty-one recipients are top-ten oil suppliers to China. These top-ten oil suppliers are Iran, Oman, Venezuela, and Yemen (Asian Development Bank 2008; China Oil and Gas Monthly 2006). Approximately 10% of China's recipients are also its major sources of oil. The presence of oil arms suppliers suggests the arms-for-access model. When China conducts arms sales with a resource-rich country, it incentivizes that country to transfer resources back to China.

There are seven other arms recipients that have in-country oil and gas assets owned by the Chinese state-owned enterprises, PetroChina and the China National Petroleum Corporation. These other countries are Algeria, Indonesia, Myanmar, Niger, Peru, Sudan, and Tunisia. The total revenue gained from arms exports to oil countries accounts for

²In Chapter 7, I explore why China develops robust arms relations with some of its recipients and not others.

approximately 5.4 billion USD (SIPRI 2008) or about 48% of China's arms revenue. For the countries China offers weapons to, the oil-rich subset supply almost half of the arms revenue. Between 1990 and 2007, China has moved away from using weapons to increase their cash earnings and may now use arms to gain strategic access into countries with natural resources. In this section, strategic access consisted mostly of SOE's obtaining oil rights over specific territory.

Conclusion The data suggest that other factors besides profit influence China's arms transfers. China has many instances of selling only once to any given country, and does not trade arms with its top general trade suppliers,. If profit motivations were the strongest forces at work, I would expect to observe less one-time recipients and fewer low-revenue contracts. A further analysis is needed, as the data oppose the weapons-for-cash theory explored in the previous chapter. The empirical findings also went against my expectation that China sells weapons to countries that it has a substantial trade relationship with. However, this finding does not dislodge the core of my argument - that natural resources and regional security both matter more than potential revenue gains. In the next chapter, I explore the arms trade data in relation to China's military expenditure. The time-series charts presented in the next chapter attempt to explain some of the patterns discussed in this chapter.

Most importantly, the disaggregated data imply that there is a connection between arms recipients and the countries China owns oil assets in. Almost half of China's arms sales recipients sell Chinese SOE's gas and oil assets. This is suggestive of my synthetic argument; China sells a significant volume of weapons to countries it exports natural resources out of. This scenario implies the arms-for-oil theory. China may not use weapons for profit

generation, but it certainly may use weapons to incentive countries to grant it strategic access to natural resources.

Chapter 4

The Changing Relationship between the PLA and Arms Exports

4.1 Introduction to Arms Exports and Military Expenditures

In the previous section, I explored the disaggregated data on China's armament contracts with its recipients. China has many instances of selling low-revenue contracts to one-time recipients. It also has a record of trading arms with top oil partners, which is suggestive of the arms-for-access argument. Numerous low-revenue contracts combined with a small number of recipients supplying China most of its profit indicates that China's arms transfers are not simply profit-motivated, but may be significantly influenced by foreign policy goals.

I now explore the data in relation to China's military expenditure and military agenda. Scholars examining data from the 1980's claim that China uses weapon sales to fund its

growing military. Is that the pattern of the 1990's and today? Sales less than 1% of China's military expenditure do not suggest strong profit motivation. It would seem that the sales are not a significant source of extra-budgetary revenue for military modernization projects. I establish that revenue from arms exports does not notably contribute to China's current military budget. Weapons-for-cash may no longer explain China's arms sales behavior.

4.2 Methodology

I present a brief history and literature review on the People's Liberation Army (PLA). The evolution of its organizations shape arms proliferation policies and controls. China's military-industrial complex also differs from the United States example in fundamental ways, so an understanding of it provides insight into the relationship between the military and arms exportations. After overviewing the PLA structure, I compare annual military budget to annual revenue generated from arms exports. I analyze the military budget for the previous two decades to establish when arms sales are a significant portion of the military budget.

Data on military spending is problematic, though. The Chinese Communist Party (CCP) may downplay or underestimate their growth figures. Research groups and the United States unanimously agree that official CCP reports on the military expenditure purposefully leave out portions of the military's actual budget (Secretary of Defense 2008). SIPRI's data approximate the real value of China's annual defense budget. I use SIPRI's data set over others, because its estimates are mid-range between CCP claims and the Defense Intelligence Agency reports. SIPRI provides a conservative but still valuable estimate of PLA annual expenditures. I review this data in three time-series charts of annual Chinese

military expenditures, the annual revenue of arms sales, and arms sales as a proportion of the military expenditure. I compare my findings with established research to assess the changing relationship between the PLA and arms exports.

4.3 Overview of China's Military-Industrial Complex

Most literature on arms sales assumes that China acts as a unitary actor. Yet, Chinese defense enterprises and government agencies have organizations and, more importantly, agendas unique to their arenas. A policy rift occurs between the PLA and the Chinese Communist Party (CCP) in the 1980's. Competition for funds shows that at times the military and the government have conflicting goals. Due to divergent preferences between the CCP and the PLA, I relax the assumption that China acts as a unity actor, and recognize that domestic competition helps form arms trade policies.

The 1980's Commercialization of the PLA The CCP under Deng Xiaoping implements defense conversion policies in the early 1980's during the reform era. These incentivize the military to "pay its own way" in terms of establishing their own budget (Karmel 1997, pp. 102). This policy emerges during a relatively peaceful era for China under Deng Xiaoping's successor, Jiang Zemin. China finally moves away from large-scale land combat, reduces the size of PLA, and invests in its civil economy. The conversion policy also follows in the wake of military cuts and the commercialization of government industries.

To regain some of its power lost during the Deng reforms, the PLA has to find a new way to guarantee its funds and its survival in a modern world of high-tech fighting capabilities. The PLA exports excess arms and begins manufacturing weapons for export

purposes only (Lewis 1991, pp. 103). It also creates research and development programs. Adjacent departments produce products for weapons-technology exchanges. This allows other Chinese industries access to high-tech resources abroad. In addition to encouraging defense sales, the government forces military facilities to produce dual-use goods.¹ China's military only produces 8-10% of civilian products before commercialization policies in 1979. By 1990, that proportion jumps to 62% (Karmel 1997, pp. 102). This statistic shows that the CCP is effective at commercializing its military and turning the PLA into a for-profit organization.

Two important arms export corporations facilitate the transition of the Chinese military to a profit-making machine in the 1980's: Poly Technologies and the New Era Corporation. Established in 1986, the New Era Group (*Xinshidai*) initially served at the discretion of the military office, the Commission on Science, Technology, and Industry for National Defense (COSTIND) and the PLA's General Staff Department. Since reorganizations in the 1990's, the New Era Group only comes under COSTIND, which (beginning in 1998) reports to the civilian State Council, not to the Central Military Commission. The PLA service branches report officially only to the Central Military Commission, even as arms producers fall under civilian leadership. New Era is primarily responsible for missile sales and nuclear technology transfers to foreign governments (Medeiros 2000).

Formed in 1983, Poly Technologies is the only other major state-owned, defense enterprise. It officially falls under the Equipment and Technology Department of the PLA General Staff Department. In practice, top party officials exert personal influence over Poly Technologies' business transactions (Lewis 1991, pp. 89). It is unclear to what extent these relationships shape Poly Technologies' agenda in the 21st century.

¹These are products that potentially benefit both civil and military sectors.

Poly Technologies caters to the whole spectrum of defense articles, engaging in transfers of handguns to military aircraft. Though it is responsible for the sale, it does not get a majority of the profits; profits flow back into the PLA budget. Despite the rise of companies like Poly Technologies and New Era, the Chinese military in the 1980's profits from arms sales and not the defense companies per se. This system stands in contrast to the United States example, where defense companies like Boeing and Lockheed Martin are the primary recipients of profits, not the United States armed forces.

PLA commercialization initiatives in the 1980's suggest that at one point China's military sold weapons to offset budget cuts. This is consistent with the weapons-for-cash argument endorsed by scholars like Eric Hyer and Karl Elkenberry. Data also confirm their arguments, in which a dramatic increase in arms revenue occurs throughout the 1980's.² From 1980 to 1987, with the creation of Poly Tech. and New Era, China's annual revenue from arms exports jumps dramatically. The transfer of arms decreases in 1989, but arms sales increase again in 1990 and 1991 following the 1989 Tiananmen Square protests. The CCP even encourages military sales following Tiananmen, to gain extra-budgetary revenue for sustaining the military's preparedness for such events (Karmel 1997, pp. 104). With the exception of Tiananmen, since the late 1980's revenue from arms exports has dropped substantially.

The 1990's and Beyond: Modernization of the PLA A couple events simultaneously occur at the end of the 1980's that force the CCP to change the organization of the PLA and increase the military budget. These events are the collapse of the Soviet Union, the end of the Iran-Iraq War (in which China sold to both sides), and the beginning of the Gulf

²See Figure 1.

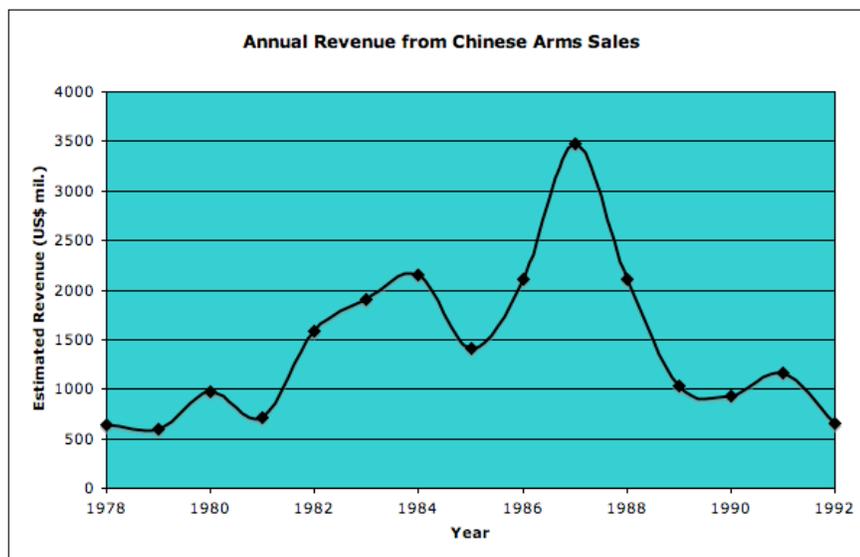


Figure 4.1: China's estimated revenue of arms sales following commercialization initiatives

War. First, the end of the eight-year Iran-Iraq War marks an end to China's profiteering from the conflict. Between 1980 and 1988, China makes an estimated revenue of 7 billion USD off of both Iran and Iraq (SIPRI 2008). By 1988, arms sales to Iran and Iraq drop off at a significant rate. While China continues selling to Iran into the 1990's, it still represents the general decline in broad system demands by recipients.

Other scholars believe that the drop in arms transfers to Iran and Iraq signifies a more global trend; "With the end of the Iran-Iraq War in 1988, the Soviet withdrawal from Afghanistan in 1989, and the beginnings of the Cambodian peace process in Southeast Asia, Chinese arms exports, like those for many other suppliers, fell precipitously" (Medeiros 2000, pp. 5). These world events show that China's drop in arms sales is not just a Chinese problem, but one that affects all arms suppliers in the current system. Since the demand for arms have dropped after the 1980's, the PLA and its defense enterprises can no longer



Figure 4.2: China's defense sales to Iran and Iraq during the Iran-Iraq War

rely on arms sales as a sufficient source of funding. This historical background implies that China has moved away from using weapons to generate revenue for the military. Later in this section, I analyze the available quantitative data from this period to confirm what this historical narrative suggests: weapons-for-cash was not an effective policy for China beginning in the 1990's.

In addition to global decreases in arms, China also witnessed the military superiority of the United States in the Persian Gulf War. In its theatre of operations, the United States used guided munitions like laser-guided bombs and the F/A-18 Hornet war-fighters (Wheeler 1996). The Persian Gulf War was a pivotal point, during which the CCP and the PLA realized it needed to engage in proactive military modernization. The government finally recognized the necessity of transforming its armed forces.

The drop in arms demands combined with the U.S.'s show of high-tech might force the

CCP to adopt new policies in regards to the PLA and arms sales. As early as 1978, Deng Xiaoping did identify the military as one of four areas that needed modernization. Yet, the government's subsequent actions suggests that PLA reforms were not top priority for the CCP throughout the 1980's (Karmel 1997, pp. 104). Institutional changes in the PLA finally occur in the 1990's.

New Organization of the PLA and Defense Enterprises The Gulf War, the collapse of the Soviet Union, and the rise of China as an economic power in Asia shape the PLA's organization and its strategic doctrine. The driving goal of the PLA now is to maintain a secure environment in which economic development can prosper (Secretary of Defense 2008, pp. 9). PLA forces are not a direct means to an end (i.e economic prosperity), but the PLA has the ability to protect China in territorial disputes and ensure discipline from the autonomous territories. This makes it a useful mechanism to guarantee political stability.

The current organization of the PLA and related defense agencies follow the PLA's new doctrine of enhancing China's position as an economic power. For example, COSTIND no longer reports to any branch of the PLA, but as of 1998 it reports to the State Council, an entirely civilian branch of government. New Era Corporation also reports to the State Council. A recent report on China's military states that "the new COSTIND appears to be tasked with implementing defense production directives and continuing to oversee and enhance the civilian production output of Chinas defense plants" (Medeiros 2000, pp. 35). The civilianization of the defense production agency can on one hand be viewed as a continuation of commercialization initiatives. On the other hand, COSTIND's reformation under civilian leadership suggests that the CCP no longer regards arms as a purely military arena. The organizational changes allow Party leaders to leverage arms exports to meet

wider, civilian policy objectives.

The government also recently created export control agencies. These are in response to arms exports coming under ever more scrutiny by the international community. The Chinese Ministry on Foreign Affairs created the Arms Control and Disarmament Department, which plays a major role in deciding and defending China's arms transfer choices (Medeiros 2000, pp. 38). The formation of oversight departments shows that China's government has taken a more direct role in arms exports. It no longer gives the PLA free reign to sell weapons simply to garner revenue. The CCP now can direct arms exports to support broader policy aims.

4.4 Hypothesis

In the previous chapter, I determined that China's total arms sales are 11.42 billion USD over a seventeen year period, which is less than one-tenth of the United States worth of arms sales from the same period.³ Based on that finding I expect that after the 1980's commercialization initiatives, the portion of arms sales that make up annual defense expenditures decreases dramatically. This decrease would weaken the weapons-for-cash hypothesis, rendering the argument irrelevant for China's new policies on the military and arms exports.

If China no longer makes a significant profit from arms sales, why does it continue to export arms to rogue actors, like Sri Lanka and Myanmar? Alternative explanations must be explored if weapons-for-cash is no longer a sufficient explanation for China's supplier behavior between the mid-1990's to today. I would expect that arms sales have to account for at least 5% of the PLA expenditure for annual arms sales to generate a significant

³From 1990 to 2007, the United States received an estimated 180 billion USD from arms exports.

amount of revenue for the military expenditure beyond a doubt. In order for arms sales to be an insignificant revenue-generator for the military, arms sales should consist of less than 1% of the total annual military expenditure.

4.5 Results

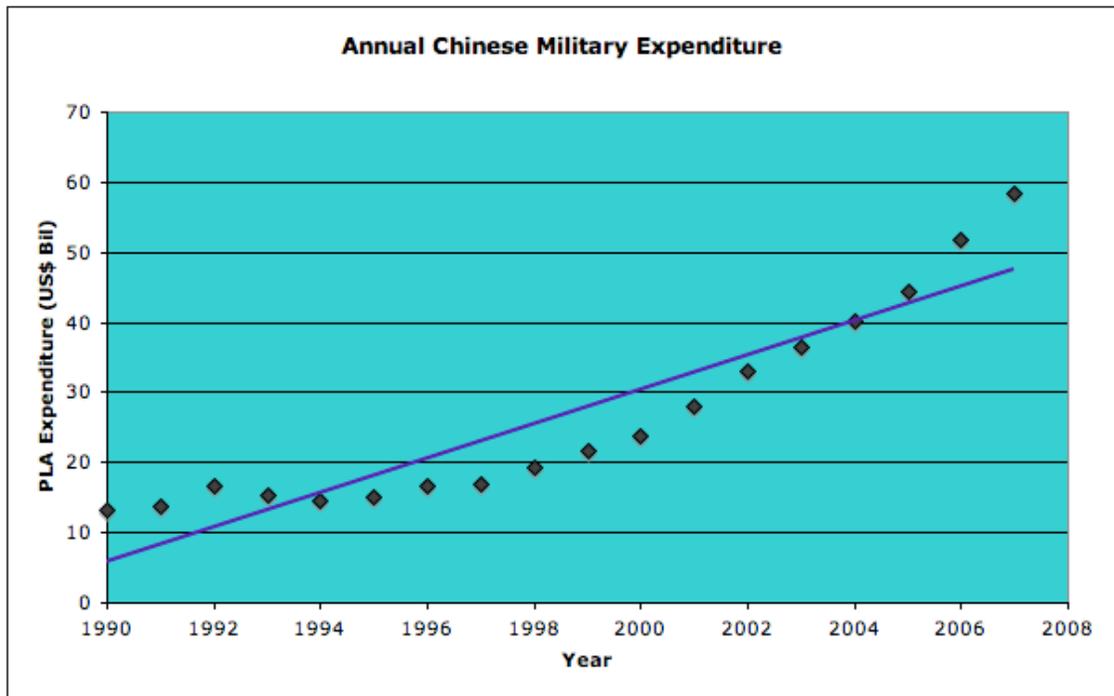


Figure 4.3: Projected PLA budget

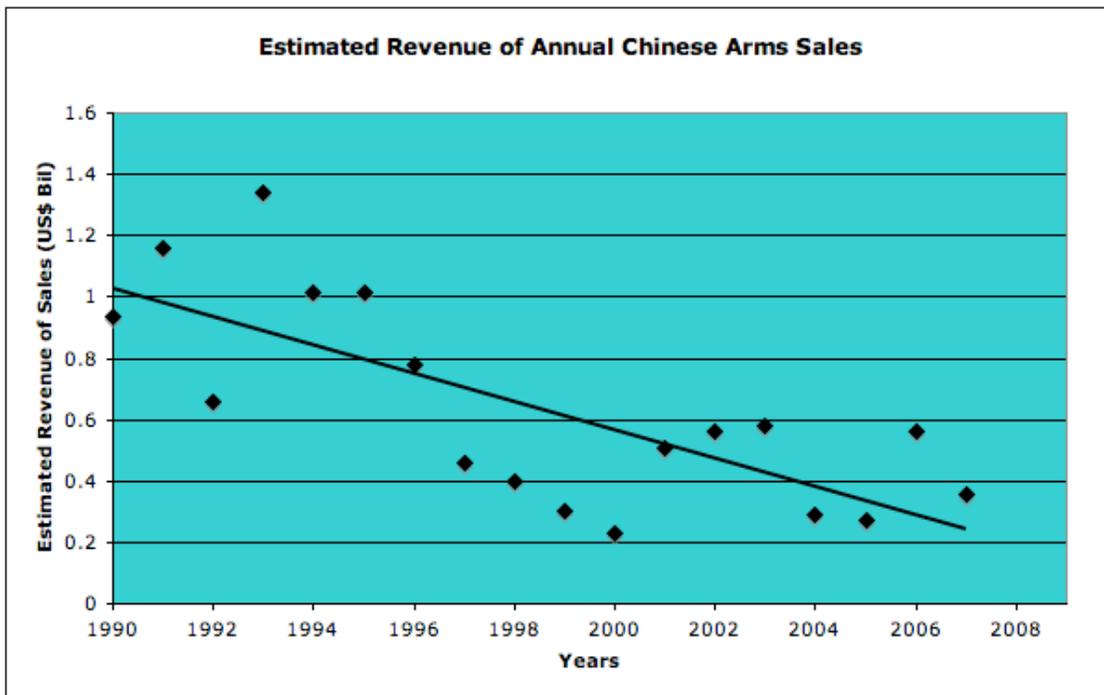


Figure 4.4: Annual Estimated Revenue of Chinese Arms Exports

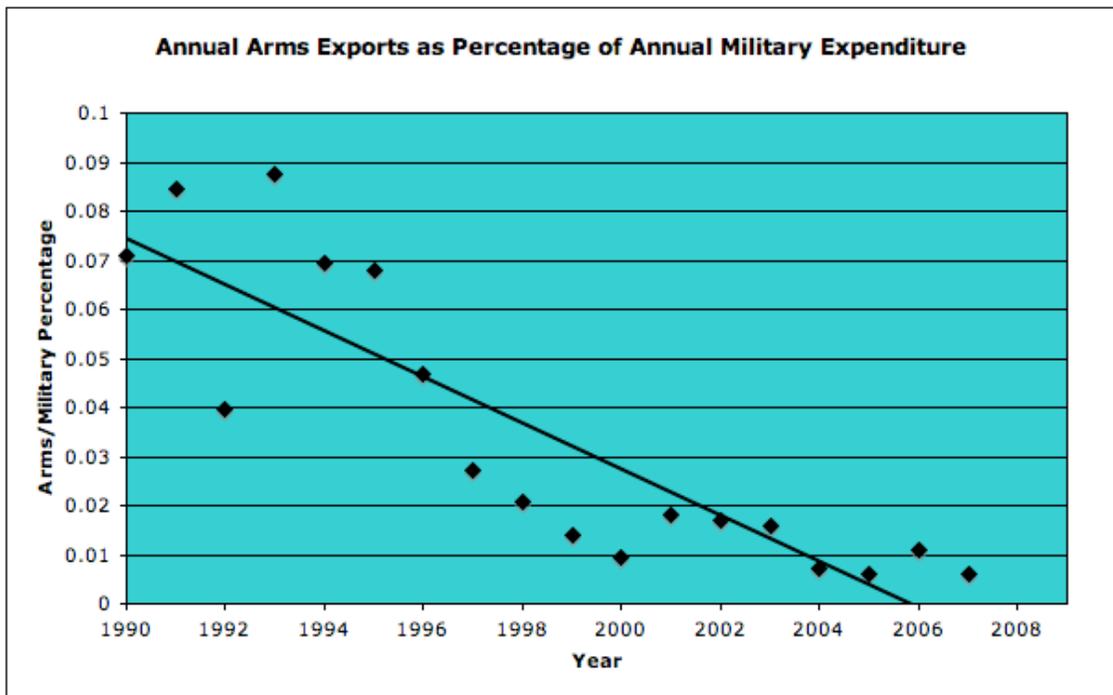


Figure 4.5: Proportion of Chinese arms sales that make up PLA military expenditure

1992 appears to be a pivotal year for China. It begins to increase defense spending but also decreases arms sales. If China uses weapons to increase its defense budget, then I should observe an increase in arms beginning in 1992 and continuing through 2007. A lag time could exist between when China acquires the money from arms sales and when it can use that profit to invest in the PLA. Even then, I should observe a gradual swell in arms sales as the military expenditure increases. Instead, I observe the opposite: an exponential increase in military expenditure with periods of sharp decreases in arms sales. By 1994, China's arms sales definitively decrease as the military expenditure rises substantially. By 1996, China's arms sales account for less than 5% of the annual military expenditure. In 2000 and from 2004 to 2007, China's arms sales account for less than 1% of the annual military expenditure.

Arms sales have a questionable impact on the military when revenue from sales account for over 1% but less than 5% of the annual military expenditure. A liberal perspective could argue that arms sales have a conceivable impact in any year where revenue accounts for more than 1% of the military expenditure. A more conservative perspective might state that arms sales less than 5% of the expenditure have no influence on the budget. The ambiguous years consist of 1994, and 1996 through 1999. These years neither prove nor disprove that China uses weapons sales to increase its military budget.

In the annual arms sales graph (Figure 2), maxima occur at 1991, 1993, and 2007. The maxima and fluctuations in Figure 2 do not appear in the military expenditure graph, Figure 1. In other words, notable changes in arms sales do not produce notable changes in military spending. The data imply that China, beginning in the 1990's, does not in any significant way use revenue generated from arms sales to increase its military budget. This contrasts with the 1980's policy, in which China used arms sales to fund PLA programs. My

findings imply that both China and the military have adopted new policies regarding arms sales; the PLA no longer relies on arms sales as a source of funding, and the government uses arms sales for reasons other than military revenue generation.

4.5.1 1992 as a Potential Outlier Observation

1992 stands out as an outlier, because the revenue generated from arms sales in that year is significantly less than the revenue generated in 1991 and 1993 (Figure 4). Since this year stands out, I now determine the context of these sales and to whom China was selling. Table 1 shows the ten countries China sold weapons to in 1992 and the approximate revenue of those sales. The estimated annual revenue for that year, 657 million USD, is significantly less in comparison to other years, especially in comparison to 1991 and 1993. 1991 had estimated revenue at 1.2 billion USD, and 1993 had estimated revenue at 1.3 billion USD.

Table 4.1: China's arms sales in 1992

Recipient	Arms Imports in US\$ mil.
Bangladesh	89
Bolivia	11
Egypt	26
Myanmar	37
North Korea	8
Pakistan	150
Peru	5
Sri Lanka	20
Sudan	6
Thailand	195
<i>Total</i>	<i>657</i>

From 1991 to 1992, China decreased arms sales to Iran, Myanmar, North Korea, Pak-

istan, Sri Lanka, and Sudan. The sole exception is Thailand, whose weapons acquisitions increased by 81 million USD (SIPRI 2007). Yet, Thailand is not a major recipient of arms sales. Only the major suppliers, Myanmar, North Korea, and Pakistan, experienced significant drops in weapons acquisitions. 1992 could be a less profitable year for China because of unique geopolitical situations or because of a deliberate foreign policy change on China's part. I examine each of its important recipients in terms of their connection with China and their geopolitical contexts.

Myanmar Myanmar's military had a high demand for arms in the early 1990's, as it was rearming and establishing its military regime. Myanmar had just emerged out of the 8888 Uprising, a mass movement for democracy in 1988. Following the 1988 uprisings, the military junta gained control and reopened trade with China. The previous regime had banned trade with China from 1962 to 1988 (Shee 2002). It is no surprise that Myanmar had an immense need to buy arms from its officially socialist and anti-democratic neighbor, China. China's CCP and Myanmar's military junta share similar ideologies and attitudes toward the West. China also borders Myanmar, which incentivizes China to protect Myanmar from political instability. If Myanmar collapses, China would be forced to absorb negative externalities, such as refugees. Last, shared borders make it easy for China to transfer and transport these weapons.

The arms transfer data confirms China and Myanmar's shared ideology and security concerns. China is Myanmar's dominant arms supplier from 1990 to 2007. In 1991, China transferred to it a range of defense products, including war-fighters, missiles, and tanks. Myanmar's military coup of the late 1980's may largely account for China's profitable gain from this country in 1991. Yet, Myanmar's political situation does not explain the

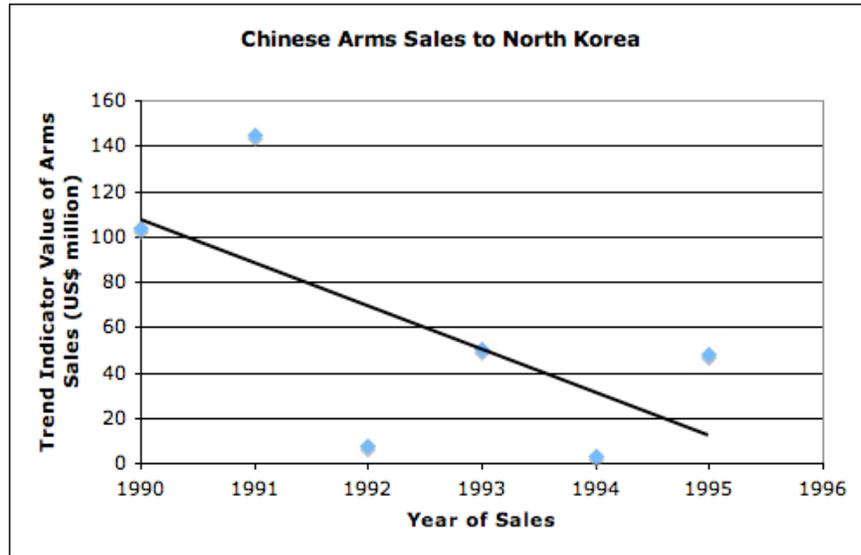


Figure 4.6: Chinese Arms Sales to North Korea

subsequent drop-off in arms trade in 1992. Myanmar reemerges as a major recipient in 1993, when it conducts an arms transfer with China worth approximately 300 million USD. Myanmar's geopolitical context fails to illustrate why a drop off of arms occurs in 1992.

North Korea Most of 1991/1992 Sino-Korean deals were signed between the 1960's and 1980's, but China did not deliver them until the early 1990's. The majority of these contracts consist of offset projects, where China worked with North Korean defense producers to develop mid-level defense systems. Since offset projects require long timeframes to complete, these offset contracts account for the discrepancy between the year contracts were signed by North Korea and China, and the year China finally delivered the products.

In North Korea, China's arms sales dropped from 145 million USD in 1991 to 8 million USD in 1992, followed by an increase to 50 million USD in 1993 (SIPRI 2008). The products delivered in 1992 were submarines, portable surface-to-air missile units, and armored

personnel carriers (APCs). These products account for a diverse set of weapons systems, ranging from sea to air operations. However, 1991 deliveries account for a greater portion of total weapons transferred. From the end of 1989 to 1991, China delivered thirty F-7 aircraft and approximately 4,000 Russian-modeled MRLs or vehicle rocket-launcher systems.

Unlike the average arms recipient in the current system, North Korea has only two suppliers other than China - Russia and Kazakhstan. Most recipients have a more diversified set of suppliers. For example, Thailand has sixteen suppliers, including the US, Ukraine, and Germany. In contrast to this pattern, a bloc pattern emerges with North Korea's suppliers; they are all ideologically similar states. This is the type of pattern one would expect to find in the Cold War system, not the post-Cold War system.

In fact, Cold War politics help explain North Korea's behavior in the early 1990's and arms trade with China. The Cold War had not been over for long. North Korea's major economic partner, the Soviet Union, collapsed and left North Korea vulnerable to Western hostilities. In the power vacuum left by the Soviet Union, North Korea (like Myanmar) sought out China as a friendly socialist state and a potential source of arms. The increase in arms transfers from China to North Korea may not be due to any official policy move on China's part, but the power vacuum left behind by the collapsed Soviet Union. The Soviet Union's collapse allowed China to become North Korea's dominant arms supplier.

I checked this expectation by analyzing North Korea's suppliers from 1988 to 1998. The collapse of the USSR in 1991 coincides with China becoming North Korea's dominant supplier and the new Russian state becoming less competitive. As China emerges as a dominant supplier in 1991, it still experiences a decline in sales to North Korea in 1992. Figure 7 shows that arms sales to North Korea appear cyclic. The decline in arms to North Korea in 1992 may be attributed to the massive transfer of arms prior to 1992, cyclic arms-

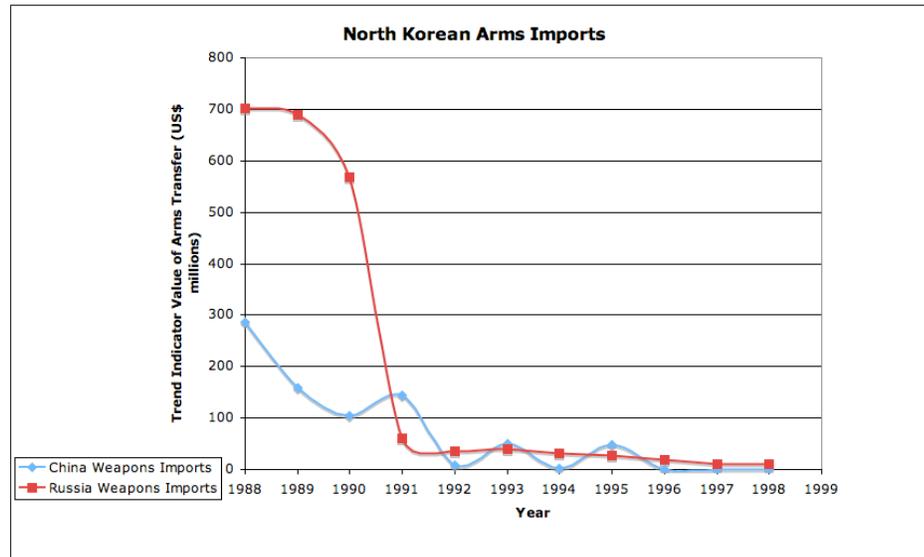


Figure 4.7: North Korean Imports from the USSR and China

transfer behavior, and the continuing competition of Russia that year. Yet, this is not a sufficient enough explanation to explain the broader Chinese drop in arms sales.

Pakistan Like Myanmar, China has a record of selling weapons continuously to this country beginning in the late 1980's. A significant number of the contracts, approximately half, consisted of offset programs. China is the dominant supplier to Pakistan, but certainly not the only supplier. Pakistan has nineteen other arms suppliers, none of which conform to one particular bloc of countries. Pakistan's list of other arms suppliers exemplifies patterns of the new system: one recipient (Pakistan) has a politically and ideologically diverse set of suppliers to buy from at any time. For example, North Korea and the USA both supply weapons to it.

Around the late 1980's and early 1990's, Pakistan faced regional conflicts with India over Kashmir and continued to have a problematic relationship with Afghanistan. Both

Pakistan and India increased their defense spending between 1990 and 1995 (Kumar 2003). Despite rising regional conflict, China experienced a drop in arms exports to Pakistan in 1992.⁴ Pakistan's payment of weapons in 1991 may account for this drop in 1992 arms sales. Since neither Pakistan nor other recipients offer conclusive insight into 1992, I now turn to non-recipient based explanations.

China and MTCR Compliance China acknowledged the Missile Technology Control Regime (MTCR) in 1991, and also received US sanctions against its exports earlier that year. The acceptance of the MTCR combined with US sanctions best accounts for the drop in arms transfers. The MTCR is a set of international guidelines that “regulates the export of missiles, unmanned air vehicles, and related technology... as well as systems intended for the delivery of weapons of mass destruction” (NTI 2004). China finalized a deal with the United States in 1992 to strictly adhere to MTCR standards. In return for adherence, the United States lifted the ban it had placed on China months earlier.

The United States' 1991 ban was a successful punishment strategy that coerced China to accept MTCR guidelines. China's acceptance of international standards dramatically limited its exporting of arms in 1992, since these sanctions would have caused political and economic costs if China violated the MTCR. China may have played it safe and been cautious in transferring weapons in 1992.

Conclusion of 1992 as an Outlier China significantly declines contracts with its top recipients in 1992. This drop in contracts reflects international condemnation China receives as a result of transferring weapons to Soviet countries in wake of the Soviet Union's collapse. Myanmar receives weapons as its military regime secures power after a bloody coup. North

⁴Arms sales dropped from 283 million USD in 1991 to 150 million USD in 1992.

Korea looks to China as a new patron state, and Iran imports Chinese armaments to speed its recovery from the Iran-Iraq War. China's exploitative behavior of these states is only a viable policy for a year or two, as the United States then in 1991 issues arms export sanctions against it. The US sanctions against China and China's following acquiescence best accounts for the dramatic drop in weapons sales from 1991 to 1992. However, the US restored sanctions against China in 1993, the same year that Chinese arms began to surge.

Alternatively, instead of adhering to international standards in 1992, China may have already fulfilled its strategic or revenue goals by earlier arms contracts. After achieving successful contracts with recipient countries in 1991, it may not have needed to pursue weapons contracts in 1992. Regardless, 1992 was an unstable year for Communist-aligned countries and a period of more restrictive international arms trade. The strengthening of the MTCR by the United States may account for the decline in Chinese arms sales in 1992.

4.6 Conclusion

This historical analysis shows that the CCP once incentivized the military to sell weapons for the purpose of funding its own programs. It supports the wider claim that China uses weapons sales strictly for revenue generation. Yet, the popular weapons-for-cash claim is only relevant until the early 1990's. During the 1990's, the CCP begins endorsing modernization initiatives for the PLA that exclude using arms as a major source of funding. The data confirm my hypothesis that at one point China's leaders supported the exporting of weapons to generate money, but have since stopped relying on exports for their source of funds.

This chapter highlights the weakness of weapons-for-cash; it appears relevant only during

the 1980's commercialization campaigns. Since weapons-for-cash is an inadequate explanation, I now explore other factors that may determine why China exports weapons, albeit at a diminished rate. I establish new determinants of China's arms transfers through focusing on outward foreign direct investment and natural resources in a foreign country.

Chapter 5

Energy Diplomacy and External Investment

5.1 Introduction

Through a time-series analysis of PRC defense contracts, I questioned whether China exports arms for mainly financial purposes. Weapons-for-cash was relevant during the 1980's, but China's diminishing rate of arms exports, combined with its exponential rise in military expenditures, suggests other motivations for arms sales. I analyzed the changing relationship of China's arms exports and its military-defense complex, in addition to exploring the geopolitical conflicts of its recipients that fueled transfers. These previous chapters helped to confirm my hypothesis that, beginning in the 1990's, the Chinese government uses arms exports to curry favor with other governments.

I expect to find foreign direct investment (FDI) and arms sales pouring into resource-rich countries. I review China's energy diplomacy, specifically how it influences patterns of FDI outflows and arms sales. I also conduct a multivariate analysis to explore the relationship

between FDI, arms exports, and in-country oil assets across all arms recipients.

There are limitations that affect my regression model. First, a limited amount of information is available on China's foreign energy assets. China has become more open about its government spending activities in previous years, but it remains a relatively closed-off actor. The publicly available information on its energy and oil assets could be skewed. If China's energy holdings were more visible, my results for this section might be different. Second, I could only gather information on FDI outflows between 1994 and 2007. The Bureau of National Statistics of China does not provide on-line data from 1990 to 1993. As a result, I shorten my timeframe of observations by three years.

5.2 Literature Review

The scholarship on Chinese investment outflows suggests key determinants of Chinese investment in a foreign market. These factors are China's physical proximity to the state, the state's possible technology transfers, and the state's potential for natural resource acquisitions. Leonard K. Cheng and Zihui Ma's article, "China's Outward FDI: Past and Future," provide comprehensive research on the subject of China's international investments (2007). Analyzing the size and composition of outward FDI from 2003 to 2005, Cheng and Ma determine that China's own experience, along with that of Japan's and South Korea's, impact where it continues investing (2007). More importantly, their research shows that a recipient economies' GDP has a positive impact on Chinese investment, but the recipient's physical distance from China has a negative impact (Cheng 2007, pp. 21).

The proximity factor or geographical closeness also plays a role in arms exports. China's top suppliers consist of countries it shares territorial borders with: Pakistan, Myanmar, and

North Korea. Many of its major arms recipients are within the same region as China, such as Thailand, Laos, Bangladesh, and Cambodia. It makes sense for China to engage in high-volume weapons trade with an actor closer to it than farther away. Shared borders allow for shorter transport and logistics lines. China even gains indirect security benefits through arming an allied neighbor; a stronger client state on China's peripheral means that Chinese borders are more secure, more stable, and less susceptible to external attacks.

Cheng and Ma are not the only scholars that point to FDI determinants similar to those of arms exports. Kelvin Cai identifies factors for FDI that are comparable to factors governing arms exports: (a) a recipient's available natural resources and (b) a recipient's technology industry (1991). Arguments in Chapter 2 also propose that China exports arms to gain valuable technology and information from another actor. There exists ample evidence for Cai's theory that natural resources are key. Chinese-based companies involved in FDI outbound activities are primarily energy companies, such as the China National Metals and Minerals Import and Export Corporation, and the China National Chemical Import and Export Corporation. This evidence supports my broader claim that China invests in countries for securing its own energy assets.

In Chapter 3, I found that China sells a significant volume of arms to countries it owns oil and gas assets in. This means that both FDI and arms sales flow to states where oil is present and available for acquisition. More importantly, this evidence is suggestive of Cai's argument, in which a recipient's available natural resources positively influence China's transactions with that recipient. If a country has energy assets it is willing to sell or trade, then China should be more willing to engage with it.

These findings, in which a recipient's natural resources influence Chinese investment, may be applied to arms trade. I determined earlier that 10% of China's arms recipients are

also its major sources of oil (Chapter 3). Total revenue from arms to these oil countries accounts for approximately 48% of all China's revenues from arms transactions. While these oil-exporting, arms-receiving countries make up only 10% of total arms recipients, they make up almost half of China's arms export profits. China directs a substantial number of its arms transfers to its major oil suppliers.

Literature on both outward FDI and arms exports suggests that China's energy challenges compel it to build economic and political relationships with countries that are resource rich. Cai best summarizes China's preferential treatment of resource-rich partners: "Chinese outward FDI in the natural resources sector accounted for approximately 25 percent of total FDI outflows up to 1994. Chinese foreign affiliates in this sector are fewer in number but larger in scale..." (1999, pp. 865). Other scholars agree that China invests overseas to fund its energy diplomacy (CSIS 2006, Wang 2002).

Both Wang and the CSIS consider a significant foreign policy goal of the Chinese Communist Party "the urgent attempt for China to acquire natural resources, necessary to fuel its economic development" (2006). Some even consider that the goal of outward FDI is to not only acquire more resource imports but also to "diversify sources for imports of natural resources" (Yin 2005). As long as China has a growing economy, it will be incentivized to bargain with foreign actors that can acquire for it natural resources, particularly those actors that Western states have not already "gobbled up." When China invests in a state, even a pariah state, it can be seen as acting out of strategic opportunism. It is opportunistic in the sense that China pursues states that Western actors have not engaged with for one reason or another.

There are additional similarities between FDI and arms trade. Just as arms trade has become a process directed by the Chinese State Council, so too FDI flows are controlled

heavily by the government. Wang finds that approximately 75% of overseas ventures are formally and informally guided by the Chinese government (2002, pp. 205). Government intervention implies that the CCP wants greater control of FDI to fulfill their unique policy needs. The CCP may perceive FDI to be as effective a political tool as a financial tool.

This review presented remarkable similarities between determinants for FDI and arms exports. Both appear governed by a recipient's proximity to China, the possibility of technology transactions, and the potential for resource acquisitions. Arms trade and FDI are also processes that are under greater government control and oversight. China uses both FDI and arms sales as leverage with a trade partner, but there may be differences in when they are employed. International laws increasingly monitor and bound arms transfers. As a result, China may turn to FDI as a more favorable mechanism for entering a foreign market. I compare trends of FDI with the trends of arms sales to determine whether a substitution effect occurs. I then conduct two multivariate regression models to verify that a correlation exists between the recipient of arms trade and FDI, and one mechanism at times dominates over the other.

5.3 Trends of Arms Exports versus Trends of FDI

I now present data on overall FDI flow from China to all the countries it invests in. I compare it to trends of Chinese arms sales. After analyzing these trends, I analyze FDI trends only within the subset of arms recipients (Section 4). Figure 2 shows a clear downward trend in arms exports, beginning in the early 1990's, with an equation of the trend line consisting of: $y = -0.05x + 92.8$. As the slope of this line is negative, China certainly declines arms exports from 1990 to 2007. This decline is expected based on findings from Chapter 4,

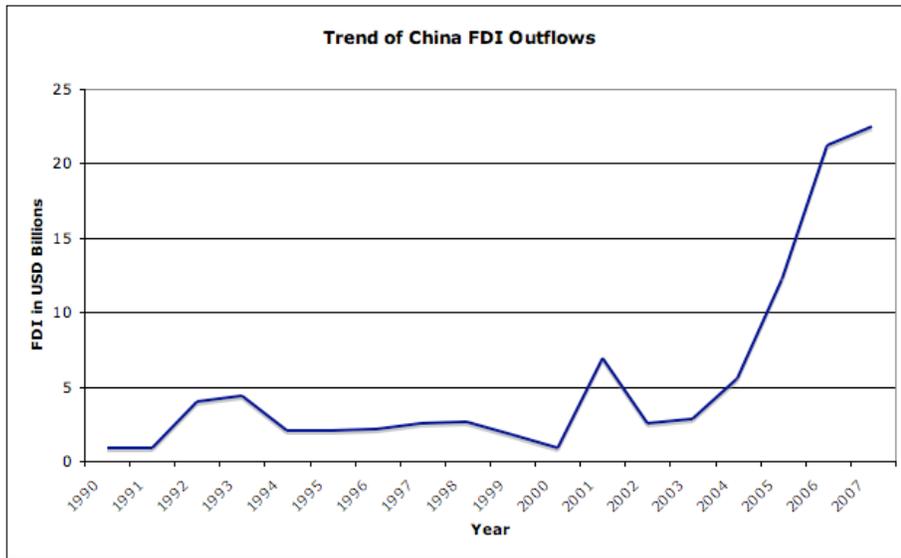


Figure 5.1: China's FDI Outflows from 1990 to 2007

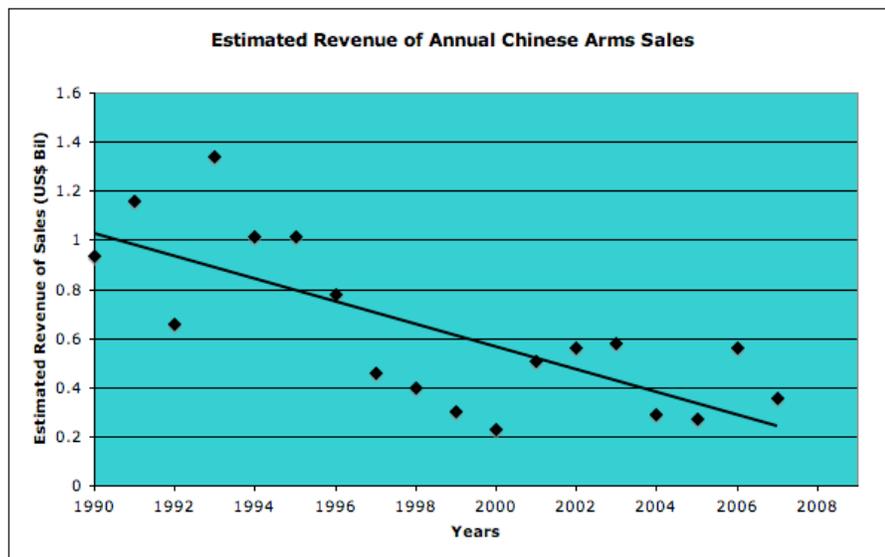


Figure 5.2: Annual Estimated Revenue of Chinese Arms Exports

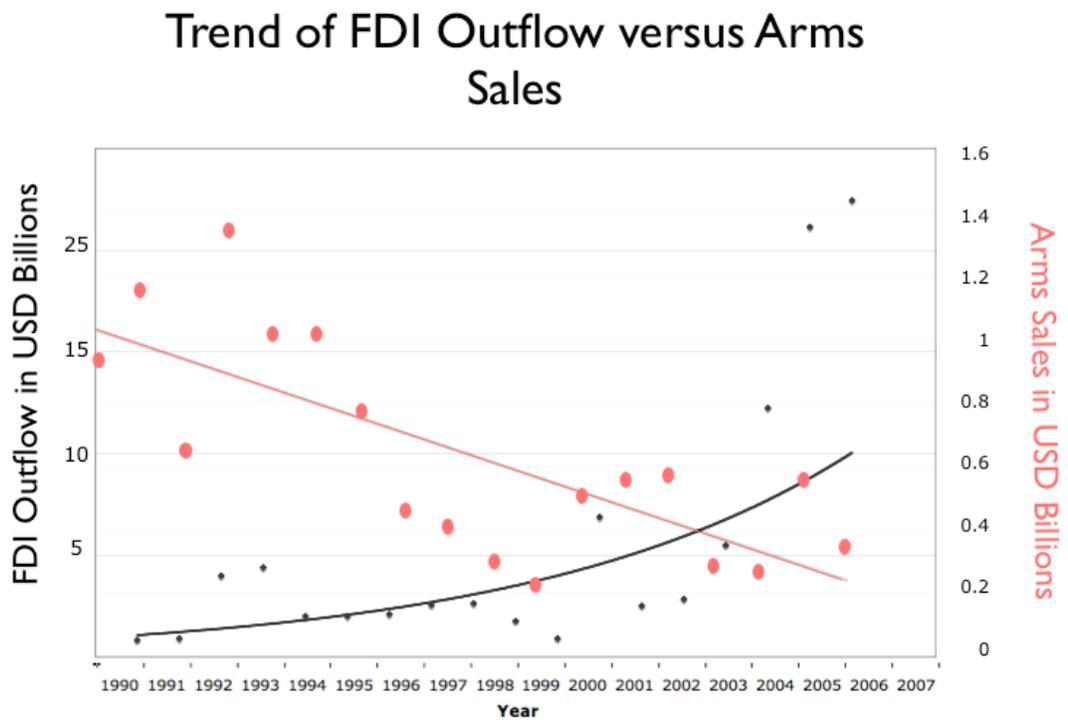


Figure 5.3: Comparison of arms sales trend overtime versus FDI outflow overtime

where a comparison of arms sales as a proportion of military budget showed that (1) China no longer uses arms sales as the prominent mechanism to generate extra-budgetary revenue for its military, and (2) international pressure and laws has restricted outward transfers. Since the end of the 1980's, the CCP has stopped endorsing the blanket commercialization of arms sales and recognized international regulations of weapons exportation.

One might expect an immediate rise in FDI beginning in the early 1990's, if arms exports and FDI are perfect substitutions for one another. After all, the literature review showed that China uses both to gain access to another actor's resources. As observed in Figure 1 and in Figure 3, China does not really increase FDI outflow until the beginning of 2001-2002. Here, a pronounced shift in Chinese policy of FDI occurs. China invests more in all countries at an exponential rate. As arms transfers decrease over time, FDI outflow to all countries increases substantially.

These graphs do not show a perfect substitution of FDI for arms sales, but the data demonstrate that one mechanism declines in use as the other increases in use. A time lag could be occurring, due to a gradual shift in CCP policy that would take years, not months, to fully implement. Shifts in a nation-wide policy help explain why FDI trends alter a number of years after arms sales decrease.

5.4 The Relationship between FDI and Arms Sales among Arms Recipients

I first explored the state of knowledge on Chinese FDI outflow. Current research suggests that China uses both FDI and arms as a bargaining chip to achieve leverage with a trade partner. Now, I use a time-series, cross-section analysis to investigate the trends of FDI

and arms exports among arms recipients exclusively. I propose the following hypothesis; China sells arms and/or flows FDI to countries where it can conduct resource extractions, thereby fulfilling its policy goal of acquiring natural resources, which is necessary for its present and its future economic development. In the previous section, I compared trends of arms sales to trends of FDI across all countries, meaning that FDI trends included non-arms recipients. I now isolate my set of countries to arms recipients.

Comparison of Mean Estimates I analyzed the mean FDI for oil-producing, arms recipients and compared it to the mean FDI for *non-oil* arms recipients. The mean estimate FDI for oil producers is 27 million USD, while the mean estimate FDI for non-oil producers is significantly lower at 14 million USD. The estimates suggest that China invests more in an arms recipient when there is the presence of oil. This finding is expected, since China has an incentive to invest in regions where it already owns assets. It may even increase investment to extract the valuable resources, as many of these arms recipients are Third World countries with underdeveloped infrastructures. China may need to create an infrastructure or improve existing infrastructure. In either case, the presence of in-country oil assets increases the mean FDI.

I then compared the mean volume of arms transferred to countries with and without China-owned oil assets. For oil cases, the estimated volume of arms transferred to a recipient is 71 million USD. For countries that receive arms but do not have Chinese-owned oil assets, the estimated volume of arms transferred to a recipient is only 47 million USD. This result implies that China transfers a greater volume of arms to countries it owns oil assets in.

China could selectively arm oil producers over non-oil producers for a variety of reasons. China has a strong incentive to protect its assets in a foreign country, particularly if those

assets are important to its economic development. Through strengthening the military capabilities of these oil states, China protects its assets from external and internal threats. Its desire to curry favor with resource-rich regimes also accounts for the higher volume of arms. China wants leverage with a state it owns oil in, to secure current resources or to bargain for more resources.

I then estimate the amount of FDI and arms transfers into all arms recipients before and after the 2000 Chinese FDI policy change. On the broader scale, China exponentially increases investment in foreign markets after 2000. Yet, its FDI to arms recipients actually *decreases*. From 1994 to 2000, China invests a mean approximate of 23 million USD into its arms recipients, and from 2001 to 2007 investment decreases to a mean of 15 million USD. This pattern is repeated with arms transfers. Between 1994 and 2000, arms sales generated a mean of 65 million USD, but between 2001 and 2007 the mean of arms sales decreases to 44 million USD.

Comparing arms flow and FDI flow to oil producers versus non-oil producers further illuminates these results. These graphs (Figure 4, Figure 5) show that that the presence of oil assets drastically alters the trend of arms and FDI flows. In oil-producing cases, China increase its FDI and arms exports over time. FDI flows to these countries rises beginning in 2003, two years after China's government decides to strengthen global investment. When oil assets are not present, China decreases its FDI and volume of arms exports.

This overview of mean estimators provides unique insight into the trends of arms sales, FDI, and oil assets among Chinese arms recipients. The presence of oil assets in a country corresponds with Chinese investment and considerable more arms transfers. Where China does not own oil assets in a country, it decreases FDI and arms transfers time.

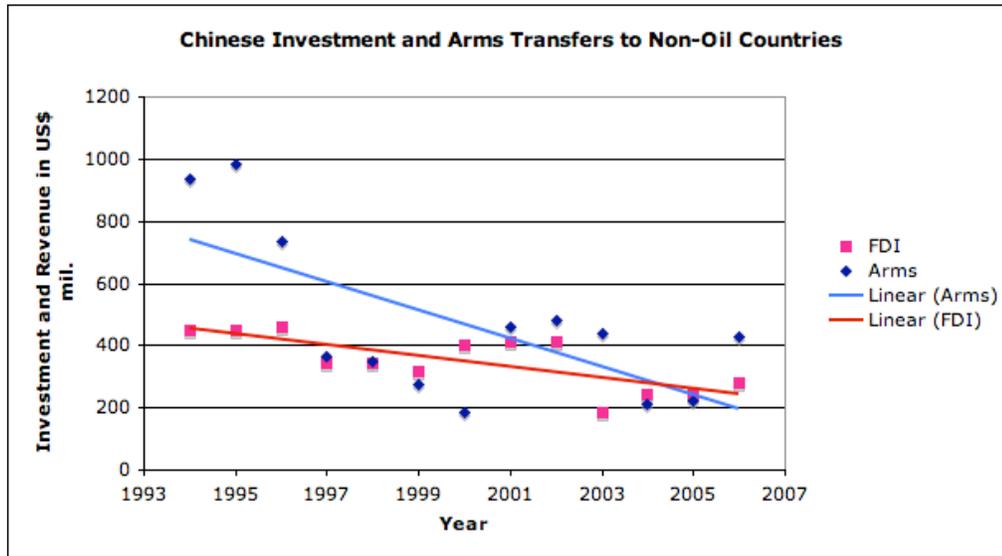


Figure 5.4: China FDI and arms transfers to non-oil, arms recipients. Based on data from the *Bureau of National Statistics of China, 1994-2007* and SIPRI.

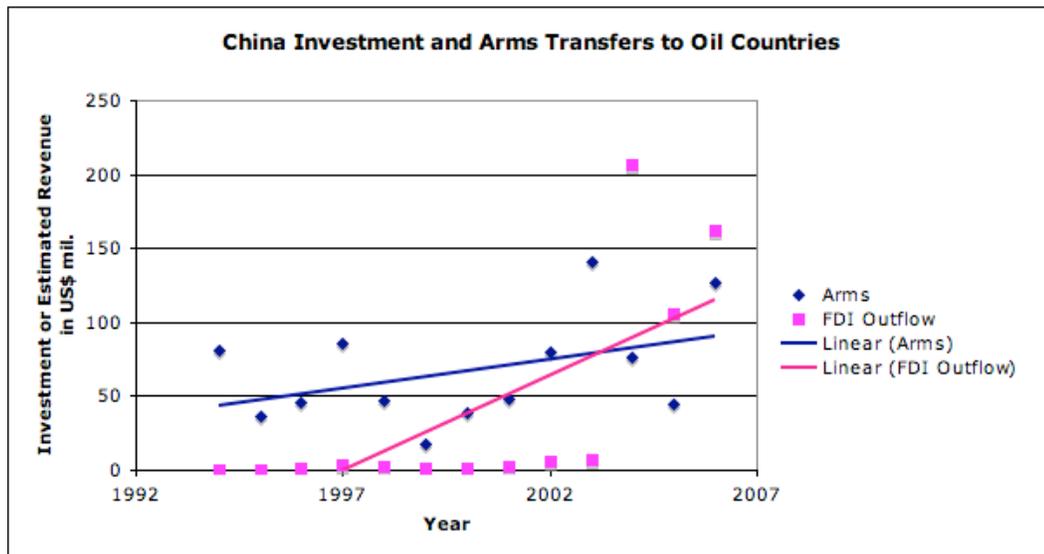


Figure 5.5: China FDI to oil-producing, arms recipients. Based on data from the *Bureau of National Statistics of China, 1994-2007* and SIPRI.

Multivariate Regression: Model 1 In exploration of the trends presented above, I examine the regression coefficient of arms exports. I chose not to examine correlation coefficients, because they are more sensitive to confounding variable problems. For this reason, I use a regression model, since it allows for a more exact estimation of the relationship between my independent variable, arms trade, and my dependent variable, the amount of Chinese investment into a foreign economy. The regression model also measures the magnitude of influence the independent variable (arms sales) exerts on Chinese investment.

Based on my proposition, I developed this structural model:

$$Y = \beta_0 + \beta_1(\text{arms}) + \beta_2(y_2) + \beta_3(\text{Oil}) + U$$

In this population model, Y is the actual amount of investment transferred into an arms recipient from China. Since I cannot know the true population model, I have a regression model to empirically test my hypothesis. It also estimates the relationship between Chinese foreign direct investment and volume of exported arms. The regression model is as follows:

$$y = b_0 + b_1(\text{arms}) + b_2(y_2) + b_3(\text{Oil}) + e$$

Ideally my different observations of x 's, or arms trade volumes, are heterogenous, meaning there is substantial variation for each independent variable. In the presence of a heterogenous sample, I hope to generate little to no variation among each b_n coefficient. Stable b_n values for each independent variable will increase the validity of my proposition. In testing my theory, I mainly want to determine whether or not the coefficients acting on my independent variables are really different from 0, or if alternatively, the differences from 0 are due to some random chance. My null hypothesis is that each of my independent

variables (arms sales, time period of sales, and presence of in-country oil assets) has absolutely no effect (coefficient of 0) on my dependent variable of Chinese FDI. The goal of my regression model is to dispute this null hypothesis that arms sales have no effect on FDI.

For this equation, the dependent variable is the amount of FDI to arms recipients in USD 100,000. The independent variable *arms* is the annual amount of arms in USD millions that China exports to a given country in a given year. My second independent variable is the timeframe of sales, *y2*, which is a dummy variable that stands for the time period either 1994-2000 or 2001-2006.¹ A 0 value stands for the time period 1994-2000, and a value of 1 stands for the time period 2001-2006. My last independent variable, *Oil*, is a dummy variable for whether China owns oil assets in a specific arms-recipient country. I use a dummy variable, because there exists limited and incomplete information on Chinese foreign oil assets. For this reason, I had to approach it from a qualitative standpoint (is there oil or is there no oil?) as opposed to attaching to this variable a numerical value. The value of 0 stands for non-oil cases, and the value of 1 accounts for oil cases.

My population consists of the countries between 1990 and 2007, which have received arms transfers from China. Some of the information on FDI is not available for the years between 1990 and 1993, or for 2007. This limits my sample to the years 1994 through 2006.

Table 5.1: Multivariate Regression Results

FDI	Coefficient	SE(Beta)	T Statistic	P > t	C.I Lower Bounds	C.I Upper Bounds
Arms Trade	26.8	9.1	3	0.004	8.7	45
Y2	-915.8	1,446.6	-0.6	0.5	-3,798.9	1,967.2
Oil	-695.7	1,444	-0.5	0.6	-3,573.5	2,182.1
Constant	1,567.6	1,338	1.2	0.2	-1,098.8	4,234.1

¹*y2* is short for 2000, the year in which the Chinese Communist Party decided to pursue the “Go Global” strategy. See Cheng Li-ru’s (2007) *Characteristic of the new policy system of chinese foreign direct investment*. China-USA Business Review, 6(3).

This regression generated the following prediction equation:

$$FDI = 1,567.6 + 26.8(arms) - 915.8(y2) - 695.7(Oil)$$

The equation states that Chinese FDI into a country is expected to increase about 2.7 USD million as arms sales to that country increase by 1 USD million, assuming that all other independent variables are held constant. FDI to a particular country should decrease by 92 USD million as the period changes from 1994-2001 to 2001-2006. Investment would also decrease 70 USD million if China owns oil assets in that given country. FDI to a particular country is predicted to be 157 million USD when there are no arms exports or oil, and the timeframe is 1994 to 2001.

Following the patterns of my mean estimates, the regression shows that the variable *arms* has statistically significant results with a P-value of 0.004. Since the P-value is less than 0.05, I can reject the null hypothesis that arms sales have no effect on FDI. I also am 95% confident that the value of the arms coefficient (β_1) falls between 8.7 and 45. When selling weapons to a country, there is a high probability that China will invest in that country by a multiplier of arms sales between 8.7 and 45. I can corroborate the findings from my mean estimates that FDI and arms sales are positively correlated.

My two dummy variables yield insignificant results, as the P-value for both these variables is relatively high and above the conservative 0.05 threshold. I initially included the timeframe variable, *y2*, because the literature review and time-series data suggest that China increases outward FDI after 2000. Though yielding insignificant results, the negative coefficient (b_2) implies that as China introduces FDI policy changes, it actually *decreases* FDI to its arms recipients. This finding contradicts the pattern of investment in oil-rich,

arms recipients but supports the pattern of divestment from non-oil arms recipients. In the context of arms recipients, this suggests that Chinese divestment from arms recipients is greater than investment in arms recipients, even as it invests relatively more in arms recipients that have oil.

The model also does not generate a significant result for the regression coefficient (b_3) of *Oil* in the prediction equation. The P-value was relatively high at 0.6. Furthermore, the value of the coefficient (b_3), -695.7 , implies a negative correlation between arms sales and FDI. This result conflicts with the trends of arms sales, oil, and FDI I established earlier (see Figure 4, Figure 5). As the results were insignificant, I could have received a random or poor distribution of data.

Multivariate Regression: Model 2 The mean estimates and time-series data suggest that the presence of oil assets increases China's FDI and volume of arms exports into a specific country. However, my previous regression model suggests that FDI into a country should decrease if China owns oil assets in it. In light of these contradictory findings, I develop a second regression model that better explores the differences between oil and non-oil cases.

In my second regression model, I analyze the data using a slope dummy variable, which models the difference in the slopes of arms transfers for oil and non-oil cases. This slope dummy variable is created by multiplying my explanatory variable (*arms*) by my dummy variable (*Oil*). By inserting this slope dummy variable (*armsOil*), I can account for divergent slopes and their unique coefficients. My new equation is:

$$FDI = B_0 + B_1(arms) + B_2(Oil) + B_3(armsOil) + U$$

Table 5.2: Regression Model 2 Results

FDI	Coefficient	SE(Beta)	T Statistic	P > t	C.I Lower Bounds	C.I Upper Bounds
arms	40.3	10.8	3.7	0.0	18.8	61.8
Oil	1,467.2	1,813.4	0.81	0.4	-2,146.8	5,081.2
armsOil	-36.2	18.4	-2.0	0.05	-72.8	0.5
Constant	345.6	1,068.2	0.3	0.7	-1,783.4	2,474.6

This second regression more accurately reflects the relationship established through the mean estimators, namely that a positive relationship exists between FDI and oil. In my first regression, the variables *Oil* and *FDI* had a negative relationship with a magnitude of the coefficient (b_3) almost 70 million USD. In this regression, there exists a positive relationship between FDI and oil cases, as the coefficient (b_2) has a magnitude of 147 million USD. When China owns oil assets in an arms recipient, it can be expected to invest in that country 147 million USD more than in cases where there are no oil assets. While this result appears insignificant with a P-value of 0.4 (meaning that there is a high probability of these results being random), it still suggests that the presence of oil assets in an arms recipient increases the amount of investment by China.

This model also shows a positive relationship between arms transfers and FDI, which I previously established in my first regression and in my exploration of the mean estimators. For every 1 USD million transferred in arms sales, I expect a positive increase of Chinese investment by 4 USD million (Figure 5). The result is statistically significant with a P-value of 0.004. This finding increases the validity of my hypothesis that Chinese arms sales positively correlate with Chinese foreign direct investment.

The coefficient of the dummy variable *Oil* (b_2) shows the difference in intercepts between oil and non-oil cases, but the coefficient of the slope dummy variable (b_3) clarifies the difference between the slopes of oil and non-oil cases. This coefficient (b_3) has a negative

coefficient with a magnitude of 36, meaning there does exist substantial difference in the slopes of arms transfers for oil and non-oil cases. The slope dummy variable corroborates with the arms sales and FDI trends in Figure 4 and in Figure 5. In non-oil cases, there is an initial higher amount of investment and arms transfers than in the oil cases, but these transfers gradually decline. In oil cases, there is an increase in both FDI and arms sales, even as the initial amount in 1992 is quite low. These results are statistically significant with a P-value of 0.05.

5.5 Conclusion

First, I conducted a literature review on China's foreign direct investment outflows and its energy policies. It showed that a country's proximity to China, energy resources, and available technology all encourage Chinese investment. It also showed that China may use FDI to gain favor with a foreign state, much in the same way it uses arms exports. I verified that (1) a positive correlation exists between the recipients of arms and recipients of FDI, and (2) China uses both FDI and arms to gain access to a country's resources. Concerning the first point, both regression models and time-series charts demonstrate a positive correlation between arms transfers and FDI. As China transfers arms into a country, it will probably invest or increase investment into that same country. This investigation shows that without the presence of oil assets, Chinese gradually decreases FDI and arms transfers over time.

I now examine cases to determine how arms transfers and oil assets increase Chinese investment into that foreign state. I use the case studies to illustrate how flowing FDI into arms recipients secures and proliferates Chinese oil assets. I examine these processes in two

widely different contexts: Niger, an underdeveloped and unknown African country, and also in Iran, a country on the international center stage and appearing to offer China nothing but trouble.

Chapter 6

The Case of Niger

6.1 Introduction

In Chapter 4, I show that the widely-accepted hypothesis of weapons-for-cash is a better explanation for China's arms transfer behavior in the 1980's than in the 1990's or today. In many current contracts, China engages in low-revenue arms transfers with one-time recipients. This suggests that the financial motivation is not the only factor for engaging in arms transfers. In Chapter 5, I analyzed data on China's arms exports, oil assets, and foreign direct investment, demonstrating that foreign direct investment and arms transfers are positively correlated. I also proposed that when China engages in resource extractions from a country, it is more likely to invest and transfer arms to that country. The opposite occurs for arms recipients that do not have Chinese oil assets. My data show that China in recent years has decreased arms sales and FDI to these non-oil countries.

The data I have examined thus far do not allow me to discern *how* factors like oil and arms encourage Chinese investment. In this chapter, I examine Niger to understand the

process or context that leads China to engage in low-revenue trades. This case study will also help me understand whether China secures non-financial benefits in low-revenue trade. The next chapter will explore the opposite case: high risk, high reward sales.

I use the example of Niger, because its contract is worth the least amount of value at an estimated revenue of 0.5 million USD. Its market is relatively small, too; last year its GDP is estimated at only \$8.9 billion USD (Department of State 2008). It is one of the poorest countries in the world in terms of both GDP rankings and the United Nations Development Fund's *Index of Human Development*. As the literature revealed in the previous chapter, China more likely invests in a country that has experienced recent and continuing economic growth. Niger does not fit into this pattern.

Since Niger offers China the least revenue from its arms transfers, it makes the least sense from a financial gains perspective. I hope to infer how weapons trade into this particular country results in increased security or other benefits for China. I acknowledge that I am treating every recipient country as independent from one another, when that may not be the case. For example, China may arm Niger to threaten Chad. China may be exploiting the regional context of these countries. In this discussion, I do not expand my scope to include neighboring countries outside the dyadic relationship of recipient and supplier. A future study or one solely dedicated to Niger-China relations should explore this avenue.

I encountered other limitations in my investigation of Niger-China relations. Few statistics exist concerning its oil and uranium reserves. Regional news services and third-party organizations release uncertain statements regarding Niger's intrastate conflicts and social tensions. I am unable to find attested details on Niger's military composition and trajectory. The United Nations and the World Bank provide most of the statistical and political information available on Niger.

6.2 Niger's Political and Economic Situation

Officially, the government of Niger consists of a semi-presidential democracy. Niger's constitution establishes a unicameral legislature under the directive of a prime minister and president. Any citizen of Niger is allowed to vote in popular elections, but only 45% of the population voted in the last elections, held in December 2004. Voter fraud, political violence, and logistics problems also hinder the country's democratic processes (IPU 2008). Even in terms of African countries, Niger has had a history of social and political instability.

Surrounded by Benin, Mali, and Libya, the West African state of Niger is situated in one of the more unstable places in the world. It is one of the United Nation's "least developed states" (UN-OHRLLS 2008). A majority of the population is below the international poverty line, and over 60% of the population lives on less than 1 USD per day (World Bank 2006). The lack of infrastructure and education make it difficult for entrepreneurs to begin and conduct business in the region, too. It has had only ten years of positive growth in the last 48 years, and a report has recently ranked Niger as one of the worst places to startup a private enterprise (Ndulu 2008, World Bank 2006).

A number of geographical and political factors have plagued Niger since its inception as a state in 1960. It is prone to desertification and seasonal droughts, problems exacerbated by the state's lack of regulations (Lund 1998). The combination of poor governance and climate factors have created massive unemployment rates within the agricultural sector (Ndulu 2008). Political instability in Niger ranges the spectrum, from demonstrations to political violence to coups. These coups took place in 1996 and 1999 (Ndulu 2008). Niger's first open elections in 1995 resulted in cohabitation; the president of one party faced a parliament under rival control. Taking advantage of political stalemate, Colonel

Ibrahim Bare Mainassara overthrew the former president and instated himself (BBC 1999). Mainassara repressed political oppositions and rigged elections. In 1999, Mainassara was assassinated, and the military took control of the government before establishing popular elections (Ngubane 1999).

Current intrastate tensions revolve around the Tuaregs, an ethnic nomad group, and their recent rebellion against the Niger government. Though an ethnic minority, Tuaregs account for 10% of Niger's total population. Approximately 1 million Tuaregs reside in Niger, a country with less than 10 million people.¹ According to one scholar of West African politics, the revolts can be attributed to the current president's complete disregard for "the Tuareg's demands for a greater and more equitable share of the country's uranium reserves" (Keenan 2008, pp. 8). The Tuareg have formed a formal militia known as the Nigerien Movement for Justice (MNJ), which in the last two years has attacked state facilities, military bases and even civilian buses (IRIN 2007). They also call for redistributionist policies such as land reform.

Recent uranium mining has only worsened the country's income gap and corruption in government. Most of the uranium reserves, Niger's most profitable export, resides in the northern parts of the country where Tuareg nomads live. Foreign companies routinely exploit this land and the indigenous laborers (IRIN 2007). The companies give high paying opportunities to workers of their own nationality, while Tuaregs are given the lowest-paid and most dangerous jobs. The Chinese National Petroleum Corporation (CNPC), China's major mining and oil company, has also been accused by the MNJ of mistreating local workers and supplying the corrupt government with military support to crush revolts (Keenan 2008). Due to Chinese support of the Nigerien government, the MNJ and Tuaregs are

¹Statistics on Niger's population are from University of Maryland's *Database on Ethnically Based Organizations* and the CIA's *World Factbook*.



Figure 6.1: Map of Niger and surrounding states, *UN Office for the Least Developed Countries, Landlocked Developing Countries, and Small Island Developing States, 2009*

hostile to Chinese miners and other foreigners.

China has limited ways to respond to this instability; it can either protect or pull out. It can increase armaments to Niger's military in the hope that a stronger defense force can competently protect Chinese oil and uranium projects. On the other hand, China can simply leave if its Nigerien investments are not as important. It is interesting that China's economic motives and arms trades are at least related here. China's likely response to this kind of situation is multifaceted, a mixture of economic, military, and political actions. In either case, this suggests that arms-for-cash is incorrect in this context. China's arms transfers and natural resource acquisitions generate substantial costs, at least in the short term.

Uranium is not the only export in the region. According to recent reports from the U.S. Department of State, Niger's other major natural resources are gold and oil, though

uranium continues to be its main source of profits. During the 1980's uranium boom, uranium deposits accounted for 85% of Niger's total export revenue. Even as the demand for uranium fell in the 1990's, it still accounted for approximately 50% of total export revenue (Ndulu 2008). Niger's major export markets consist of France (35%), Nigeria (17%), and Japan (13%). As it exports unrefined natural resources like uranium and gold, Niger imports industrial products. Its major import partners are France (16%) and China (13%), who also happen to be its dominant arms suppliers (Department of State 2008).

Niger's predominant security concerns revolve around the rising Tuareg rebellions. In recent months, these Tuareg insurgencies have increased their use of violence against Nigerien officials. Tuareg rebels fight the Nigerien military with inexpensive weapons: small arms and land mines. The military responds with unique tactics, selective shootings and killing the Tuaregs' camels (VOA 2007). Other transnational issues concern Niger's border with Libya, where Libya has argued claim to 25,000 sq. kilometers inside Niger. Benin and Niger also have border disputes (CIA 2009). Rebels from Chad often escape to Niger, where they plague Niger's civilian population (IRIN 2007). Since independence, the one constant for Niger is internal conflicts and regional rivalries, for which the military is necessary.

Niger's Military Considering Niger's low GDP, the Niger Armed Forces consist of a modest number of units. According to the Department of State, it has only 12,000 personnel, 300 in the air force, and 8,000 army personnel. According to SIPRI estimates on military spending, Niger's defense budget accounts for approximately 1.1% of its GDP. Its military spending appeared to peak in 2001, remaining fairly low at the time of the 1997 purchase of a Libyan transport aircraft and the 2005 purchase of mortars from China. As in 2005 Niger's military expenditure was 33 million USD, the Chinese arms contract accounts for

less than 0.5 million - at most 1.52% of its military expenditure. Traditionally and recently, the regime deploys the armed forces to put down rebellions, and also coups. In 2007, the Nigerien government approved a bill to enhance military capability in northern Niger, where clashes with Tuaregs are most severe (IRIN 2007).

Niger's Armed Forces are designed to combat local violence rather than external threats from other conventional armies. They have low-tech weapons and rely mostly on small arms. Their larger weapons consist of heavy mortars and other light artillery. These weapons are adequate against small groups of ill-equipped rebel. Since Tuaregs number almost 1 million, the Nigerien military may not be able to sustain repression for long. Also, the military's attempts to deal with uprisings has resulted in severe international criticism. One human rights organization claims that the Nigerien Armed Forces engage in extrajudicial killings and indiscriminate attacks on civilians (HRW 2007). Despite these accusations, few reforms have been conducted in the Niger Armed Forces, and the government may even empower them to oppress political activism.

6.3 China-Niger Relations

Niger has a miniscule arms import record; from 1980 to 1990, it only imported 97 million USD in aircraft and armored vehicles.² Between 1990 and 2007, it purchased approximately 42 USD million worth of arms. Its suppliers consist of a small range of actors: China, Libya and France. Its Francophile past accounts for its connection with the French government, and it shares a border with Libya. Most peculiar is the deal it made with China, signed 2005. China does not have a shared history with Niger, the way Libya and France do. China

²The United States spends over four times that amount annually.

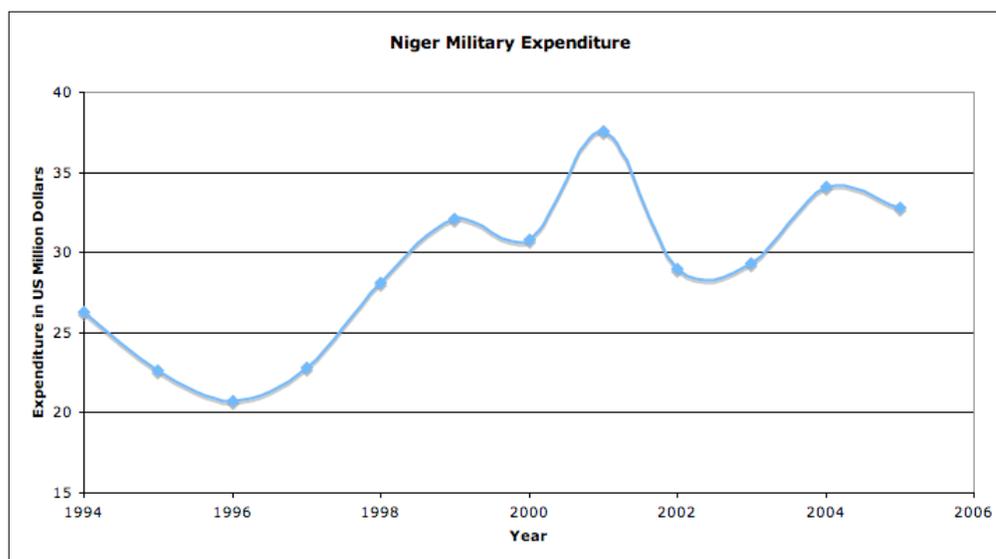


Figure 6.2: Niger's Military Expenditure in Constant Dollars, based on SIPRI estimates

also sold to Niger a seemingly negligible amount of arms, 0.5 million USD worth of artillery. It specifically sold six Type-43 120 mm heavy mortars (SIPRI 2007). According to *Jane's Infantry Weapons*, the definitive publication on small arms, China based its Mortar Type-43 on an earlier Russian Federation model. Mortar Type-43 is now manufactured by the Chinese defense firm, China North Industries Corporation (NORINCO), which produces weapons based off of Russian originals (Jane's 2008). It is possible that they are used against militias. Transportable and durable, they are the ideal weapon for the Niger Armed Forces to use against MNJ militia.

China invested in Niger beginning in 2000. It be must acknowledged that Niger is just one of many Chinese West African holdings. From 2001 to 2006, China invested 2.4 million USD, and in 2004 (the year prior to the contract) China invested 0.8 million USD. Though this amount is relatively low, China's actions are consistent with the large- n findings in

Chapter 5, which showed a positive correlation between arms and investment. This trend of investment also supports the CCP's "Go Global" policy of 2000, where China sought to increase outward FDI globally.

A relatively weak relationship existed prior to this sale and FDI transfer, but in 2006 the two countries pursued greater bilateral cooperation and economic activity. In October 2006, Niger President's Mamadou Tandja attended the Beijing Second Ministerial Forum on China-Africa Cooperation (FOCAC). This summit promotes diplomacy and cooperation between China and African states. President Tandja had nothing but optimism for his country's relations with China. He stated that "although geographically apart from Niger, [Niger] still considers China to be its closest ally in the world" (BBC 2006). President Tandja also stated that his country "highly values cooperation with China, which [he believes] gives its partners preferential treatment" (BBC 2006). Based on President Tandja's claims of a strong, bilateral China-Niger relationship, China's arms sales to Niger could be an effective mechanism to gain favor with this uranium-rich actor.

China and Niger have not just committed to each other verbally, but they have agreed to many energy development projects since the 2005 arms deal. China's biggest deal occurred in 2008, when CNPC signed an agreement with Niger's government to develop oil reserves. The contract requires an estimated 5 billion USD investment on the part of China, but it also grants China access to 20,000 barrels a day and an oil pipeline, which will run through Cameroon to the African coast for international transporting (Massalatchi 2008). As China invests in Nigerien oil fields, President Tandja grants it preferential access to those energy exports.³

Tuareg rebels strain China-Niger relations, though. In 2007, the MNJ took hostage

³It is possible that China, as an economic power, *demand*s preferential treatment from African countries. This still suggests a more complex set of motivations than merely financial.

a Chinese executive of a uranium mining company (Xinhua 2007). This militia violently protests foreign exploitation of local lands. The MNJ claimed to take Zhang Guohua hostage because his company employed Chinese miners rather than local miners. The Nigerien government took diplomatic steps to avoid tensions between it and China. In the months following the hostage situation, the vice-chairman of China's National People's Congress met with the Parliament of Niger. Wang told reporters that "[Niger and China] are ready to strengthen exchanges and cooperation between the two sides, and to make greater contributions to consolidating the friendship between the two peoples" (BBC 2007). Despite MNJ revolts, Niger and China have maintained strong cooperative and economic ties.

6.4 Analysis

Niger: Costs and Benefits China only provides Niger with six heavy mortars, but—unlike light mortars—heavy versions can penetrate buildings and effectively damage urban structures. These mortars can be used against the MNJ or for training purposes. For a relatively small army, heavy mortars also increase the arsenal, especially if the Armed Forces are deployed in urban areas against ill-equipped guerrilla forces. These exports increase the military's unit readiness, meaning the number of available artillery. If the Armed Forces are fighting enemy units of similar size, the mortars give Niger the advantage in the theatre of operations.

Alternatively, China may have transferred these mortars as a symbolic act, signaling its commitment to the Nigerien government. The governments have arranged multiple meetings per year since the arms contract. Niger and China first established diplomatic relations in 1974, but China severed its relations with Niger after the African state announced its

recognition of Taiwan. Though relations were restored in 1996, economic cooperation did not take off until 2002. In September 2002, Niger and China established a joint economic and trade commission (MFA 2003). Even if Chinese mortars marginally impacted defense forces, the gesture may increase the likelihood that Niger grants China preferential treatment. Through the arms transfers, China signals its resolve to support and cooperate with Niger. Furthermore, the government of Niger does not simply gain mortars but also a relatively rich and powerful actor in the global arena. As China finances development projects, Niger benefits more from Chinese investment than from actual armaments.

China: Costs and Benefits In an average arms sale, the most obvious gain from the arms contract for China would be the revenue generated. Yet, this sale to Niger does not provide China with any significant amount of profit. Even relative to other one-time recipients, whose arms contracts average 9.5 million USD, Niger did not make a significant purchase of Chinese arms. Scholars like Eikenberry and Hyer have argued that China has only financial objectives in mind when it comes to exporting arms, and that China transfers arms to whichever country has a high demand (1992). This argument may apply to China during earlier periods, but low-revenue contracts such as those with Niger suggest other motivations. It is not likely China trades weapons with Niger for a half a million dollars only.

A more reasonable explanation for this Niger contract is weapons-for-access. China's need for natural resources drive its armaments to resource-rich actors (Carmody 2007; Payne 1998; Taylor 2006). While normally Niger would not be considered "rich," it does have rich uranium deposits, and it is beginning to develop a petroleum industry (Ndulu 2008). Niger produces 3,000 tons of uranium a year, and it has given China a significant

share of exploration permits to find additional uranium stocks (IRIN 2009). The 2008 CNPC-Niger oil contract will also supply China with 20,000 barrels a day (Massalatchi 2008). China's current business operations in Niger shows that energy resources do attract Chinese interest and investment.

However, Niger is not the ideal country to invest in; it generates real risks and political costs for China. It is politically unstable, in a poor geographic location, and has border problems with its neighbors (UN-OHRLLS 2008). Even if its assets are physically secure, China still incurs political costs. Human rights groups, international journalists, and Africans like the Tuaregs accuse China of human rights violations and unacceptable labor practices (Hanson 2008). Why does China take financial and political risks investing in this region? In terms of global investors and energy consumers, China was relatively late to the game, far behind its Western competitors. It may have chosen Niger because it was a left-over oil state, one that had energy reserves but was sought unfit for Western investment. This accounts for why China continues strong relations with Niger, even if this country has a politically unstable situation and rebels who kidnap company executives.

The threat of rebels causing upheavals in the uranium-rich lands explains why China sold Niger artillery. The six mortars may enhance Niger's Armed Forces against militias. China not only increases Niger's use of force but also protects its own investments. A well-armed state defense would prevent hostile groups from harming China's extraction of resources. China has pursued similar strategies in other African oil states. Instead of traditional transactional deals, China offers intricate aid packages and military support to small, low-visible countries like Gabon and Equatorial Guinea (Hanson 2008). These packages not only provide China with positive public relations, but secure its African assets.

Even if the military impact of these mortars is unclear, one thing is certain; since the

2005 arms sales, China and Niger leaders have pursued a stronger, political relationship and mutually-beneficial economic activities. Bilateral economic cooperation may offset political costs and risks associated with such an unstable region. China's investment into Niger and prospects for greater investment shows evidence of what my regression analysis suggested: that as China sells arms to a country, it is also likely to invest directly by a great magnitude in that country.

6.5 Conclusion

Through examining Chinese arms exports to Niger, I determined possible characteristics that make an actor a suitable beneficiary of arms. These characteristics consist of relatively underdeveloped energy resources, lack of external threats, and lack of environment or labor regulations. However, I failed to determine whether Chinese arms transfers significantly impact the recipient's military. Due to lack of written information on the Niger Defense Forces, I was unable to conclude whether the six mortars sold to Niger strengthened its military against militia attacks. This arms sale could easily be a symbolic act. As I illustrated through the Beijing Forum on China-Africa Cooperation, even a symbolic act can substantially improve an African state's perception of China.

Last, I illustrated the process by which arms transferred to economically-poor recipients encourage security for the CCP. While China does not gain conventional security benefits like a regional ally, it improves its energy security. It gains access to Nigerien uranium reserves and access to previously untapped oil fields. The case study also reveals that China improved its relations with Niger after the 2005 arms deal, and then used its new bargaining leverage to fulfill specific foreign policy goals, namely the acquisition of energy

resources and diversification of energy suppliers.

It should be noted that Niger is the bottom of the barrel in terms of arms recipients. It is unfair to dismiss weapons-for-cash on the basis of one extreme case. I will now move on to a country where there is a high financial relationship between arms supplier and arms recipient. In this case study, China uses arms sales to safeguard its own investments in a country, particularly in a volatile country. It also showed that Chinese arms sales correspond with improved bilateral relations.

There are still some unanswered questions. How does long-term arms sales translate into long-term investment? How does some oil holdings attract such a huge magnitude of weapons and FDI? To further understand the results of the multivariate work, I now introduce another and very different case—China's sales to Iran.

Chapter 7

The Case of Iran

7.1 Introduction

The case study of Niger provides insight into how China benefits from relations with a country that has a low GDP and severe intrastate conflicts. Niger also illustrates that China uses its trade relationship with countries in demand of arms to gain access to their natural resources. This type of relationship is beneficial to both arms supplier and arms recipient. The resource-rich arms recipient receives defense technology, which it cannot produce in-state and cannot buy from Western suppliers. The resource-seeking arms supplier may gain leverage in bargaining with that country, particularly in terms of purchasing assets like oil fields. Through a partnership with the arms recipient, China could then introduce the necessary technology to extract those resources.

Since I have suggested some reasons why China might engage in trade with a small country, I will now introduce an entirely contrasting context, that of a relatively high-profile, robust state with substantial security challenges. Niger's low importance in the

international community makes it a politically low-cost destination for Chinese weapons. Iran is precisely the opposite, one that generates high political and diplomatic costs for countries that engage with it, and perhaps large gains in terms of energy exports.

Taking into account associated political costs of transferring arms to this country, what about Iran makes it an attractive recipient of arms? Does China gain benefits from this transfer the way it may gain non-financial benefits from its trade with Niger (i.e. access to uranium)? As I established in my earlier chapters, China has a history of selling weapons to Iran. Its sales rose particularly during the Iran-Iraq war, where China ended up being a Lord of War, selling arms to both countries. From 1993 to 1996, Iran imported a significant number of arms from China specifically. These arms sales totaled approximately 987 million USD, a little less than half of all the amount Iran has spent on Chinese weapons contracts. Iran's total spending on Chinese arms is estimated at 2.25 billion USD (SIPRI 2008), which is a substantial amount considering that Iran is still developing state.

So how do some countries become the dominant recipients of Chinese exported arms, receiving a diverse and high-volume set of arms? What political and economic factors cause China to export arms to these countries over an extended period of time? In this regard, I hope to show that when energy, political, and security goals converge, China may export a dramatically greater volume of arms to a recipient. The statistical results found in Chapter 5 asserted this claim, but they did not explain how China spends investment in that country. China may focus on that recipient as a one-stop-shop to fulfill multiple foreign policy goals, just as that arms recipient relies on China as the one-stop-shop for defense commodities. This case study will also establish what commodities the arms recipient transfers to its arms supplier (China) besides payment for the transfer itself. The scope of my empirical analysis prevented me from determining whether recipients export to China a certain type

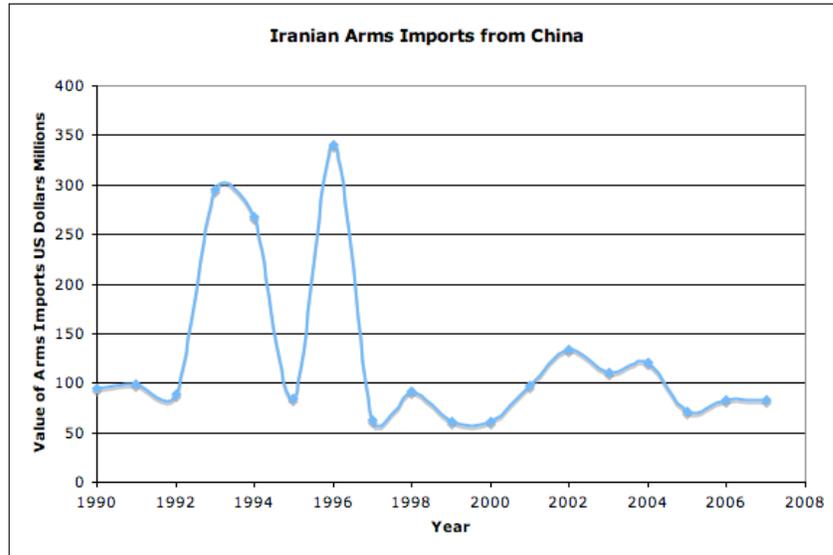


Figure 7.1: Iran's Estimated Spending on Chinese Arms, based on *SIPRI's* 2008 estimates.

of commodities, particularly energy commodities. The presence of particular commodities may be necessary for China to engage in arms trade over an extended period of time. If energy-related commodities are exported in abundance to China, then I can illustrate how the process of arms-for-access actually works.

Selection Criteria Wanting to examine the dominant arms-trade relationships only, I have first surveyed the top recipients of Chinese arms over a seventeen year period:

Country	Arms Imports in US\$ bil.
Pakistan	3.57
Iran	2.25
Myanmar	1.24
Thailand	1.02
Bangladesh	0.57

To highlight the process by which China benefits strategically from these transfers, I need to choose a country that has relatively clear energy commodities and strategic benefits for China. Out of these five top recipients, China also owns major oil assets in Iran and Myanmar. These assets consist of development rights over oil fields and pipeline projects (AsiaTimes 2007).

Interestingly, Thailand is also one of China's top trading partners. Both Bangladesh and Thailand have regional ties to China, but Bangladesh has no obvious security relations with China or energy export relations. Bangladesh is not as strongly anti-India as China, though it does have border disputes with India and blames India on illegal cross-border trade (CIA 2009). In addition, it may be a competitor against China for textile exports. China has less obvious motivations to export arms to Bangladesh. This makes Bangladesh an interesting case, but not a case sensitive to how China uses arms exports to promote goals of energy security and economic sustainability.

There are also reasons not use Myanmar; its shared border with China makes it primarily a security partner. I have already shown through a literature review of both arms exports and FDI that a country's proximity to China significantly encourages Chinese involvement

and arms transfers. As such, Myanmar may be less useful. Its strong partnership with China can be accounted for by shared borders and shared security concerns. Iran presents a more insightful case. Iran and China do not share borders, but Iran remains a significant actor in Chinese arms transfers and broader foreign policies. It provides a framework for exploring the relationship between exportation of arms transfers and importation of resources.

7.2 Background

The complex security situation of Iran empowers it to buy a range of defense systems from reliable suppliers. According to the U.S. National Intelligence Council (NIC), Iran's regional challenges include maintaining territorial integrity, even as threats like the Iraqi-sponsored Mujahedin prosper along the border. It also confronts internal instability caused by religious or ethnic insurgents moving into Iran from neighboring states. These border problems, combined with United States opposition and Israel's escalating aggression, encourage Iran to modernize its military capabilities and to rebuild its defense industrial base (NIC 2000). Ethnic insurgents, Israel, and a greater US presence in the region are just some of Iran's most pressing security concerns. As Iran's security challenges becomes increasingly complex, China has remained a loyal arms supplier.

China has maintained a stable transfer of arms to Iran since the early 1980's with the onset of the Iran-Iraq War. And for as long as China has transferred arms to Iran, Western leaders have criticized China and issued trade embargoes. The United States is most outspoken against China's relations with this Persian Gulf state. Its criticisms and complaints are not unwarranted; the United States views proliferation of missiles to Iran as undermining its own security in the oil-rich region (CNS 2007). In fact, Chinese missile sales

to Iran in the early 1990's brought on sanctions by the United States under the Iran-Iraq Arms Non-Proliferation Act of 1992 (CNS 2007). I will now explore the aspects of these contracts that generated such antagonism from the United States.

China began selling weapons to Iran during the Iran-Iraq War in the early 1980's. Like most arms recipients in the current system, Iran relies on a multi-supplier network, though many of its suppliers were formerly aligned with the Soviet Union. Iran's suppliers illustrate some aspects of the Cold War. Of the twelve countries that Iran receives weapons from, four represent remnants of the Cold War's Soviet bloc. These countries consist of Belarus, China, North Korea, Russia, and Ukraine. These suppliers come as no surprise considering that the USSR used to be Iran's dominant supplier of defense articles (SIPRI 2008). Although the USSR used to be the dominant supplier, since its collapse Iran now relies primarily on China.

From China, Iran has bought a diverse set of weaponry that span land, sea, and air operations.¹ It is no wonder that these contracts create tensions with the United States and have brought on international criticism. These contracts included submarines, helicopters, various types of artillery, and missile technology that could potentially carry nuclear articles. Already China's relationship with Iran appears in stark contrast to its relations with Niger. China only sold artillery to Niger, and for one year only. Yet China has completed dozens of arms transfers to it over the past two decades.

In addition to conventional contracts, China has completed numerous offset projects for Iran.² From 1986 to 1990, China worked with the Iranian government and local defense

¹The following information on Chinese contracts was generated from SIPRI's Arms Transfer Database on January 29, 2009.

²As mentioned in Chapter 3 and Confer 2008, offsets refer to a supplier working in the recipient's country to produce a particular good. This is a common requirement for arms-supplying governments or defense companies. It ensures reciprocal business transactions, normally consisting of an exchange of technology or important resources.

industry to produce 250 multiple rocket launchers (MRL's). In 1993, China also signed a contract to produce 950 surface-to-air missiles (SAM's), which were delivered between 1996 to 2007. Over the previous ten years China has worked in-country with Iran to produce approximately 500 anti-ship missiles. China's fulfillment of multiple offset projects may signal to Iran its commitment to preserving and protecting the broader Iran-China partnership.

This overview of Chinese-Iranian arms contracts illustrates that China is a dominant and robust arms supplier for Iran, even in the face of United States criticism extending through the Clinton years and into the Bush administration. China's sales have resulted in some high political costs; its military exports to Iran were blocked by the United States in 1991 and 1992. As stated in Chapter 4, the US pushed China to adhere to the Missile Technology Control Regime's (MTCR) guidelines. China still refuses to join the MTCR, and US criticism against China's transfers to Iran continues. In 2003, the United States placed sanctions on the Chinese SOE defense contractor, North China Industries Corporation (NORINCO), for providing a "destabilizing" number of missile technologies to the regime (Tkacik 2003).

China's history of working in-country with Iran also shows that the two countries have developed a close partnership in arms production. Multiple offset projects suggest that China may not simply transfer arms to Iran for short-term profits, but to gain longer-term benefits. This differs from the expected arms supplier behavior, in which suppliers sell arms to meet financial objectives, and offset projects are employed to encourage technology transfers. Unlike the average second-tier supplier, China may use arms exports as leverage with the Iranian government.

Overview of Iran's Exports While Niger's major energy exports consist of uranium, Iran is known for oil and lots of it. Petroleum exports make up approximately 80% of its export market. Certainly China would be drawn to Iran's oil production of 2.8 million barrels per day, which Iran directs exclusively at foreign customers (CIA 2007).

Just as importantly, China is Iran's biggest import and export partner. According to the National Bureau of Statistics of China, the trade deficit that China has with Iran is an estimated 21 billion USD. Iran's oil exports to China explains much of this deficit. Based on *FACTS, Inc.* estimates, Iran is China's third largest oil partner behind Angola and Saudi Arabia (2006). Iran exports to China an estimated 346 thousand barrels per day, about 12% of Iran's daily barrel holdings. These oil transfers are substantial, but Chinese exports to Iran should not be underestimated. From 1992 to 2007, China exported 26 million USD worth of commodities. Despite international criticism, China will continue transferring arms to Iran, because it represents a major source of oil *and* a major market for Chinese commodities.

7.3 Analysis

Iran: Costs and Benefits Iran can supply China with reliable transfers of oil, but that factor alone does not account for the magnitude of the arms sales, which average 125 million USD per year. None of the other arms recipients with oil holdings approach the amount of weapons that Iran purchases from China annually. A unique combination of factors help explain the robustness of the Iran-China arms transfers. These factors include, but are not limited to, Iran's economy, annual military expenditures, and the unique security context.

Foremost, Iran's robust economy allows it to have a more robust military. While Niger's

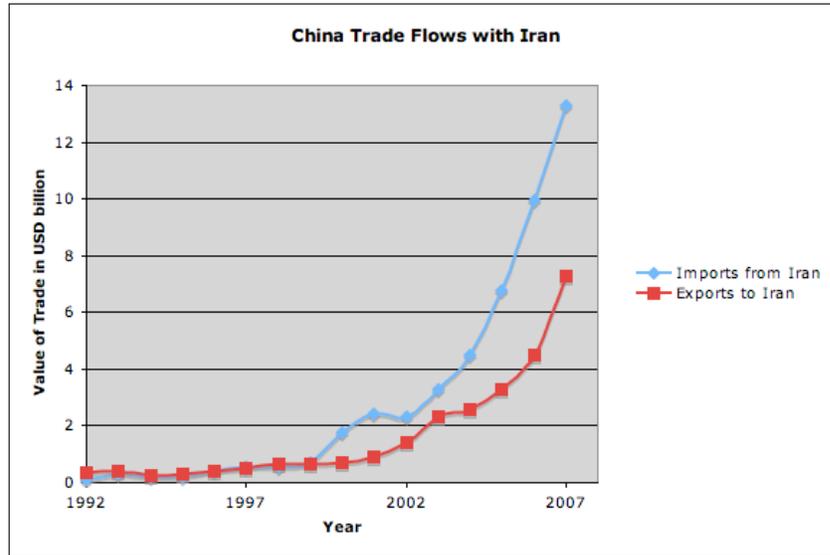


Figure 7.2: China's import and export patterns with Iran, based on *National Bureau of Statistics of China Annual Yearbooks 1994-2007*

GDP ranked its economy as one of the poorest in the world at 8.9 billion USD, Iran has a GDP almost 100 times that at 860 billion USD (CIA 2008 est.), which means a substantial military and a more substantial military budget. Iran spends an average of 3.4 billion USD annually on its military, and its expenditure increases every year at a rate of 17% (SIPRI 2009). An expanding military budget means that Iran can afford more defense systems and better technology than China's other recipients. It is no wonder China sells weapons to this country irrespective of US antagonism; Iran's ability to purchase weapons combined with regional security crises increase its demand and its acquisition of armaments.

While there is observed growth in Iran's overall military expenditures, there is no observed growth in levels of imported Chinese weapons. Iran has maintained a flat level of arms imports from China despite regional security challenges and expansion of its military forces. US sanctions that punish Chinese firms could account for these stagnated levels.

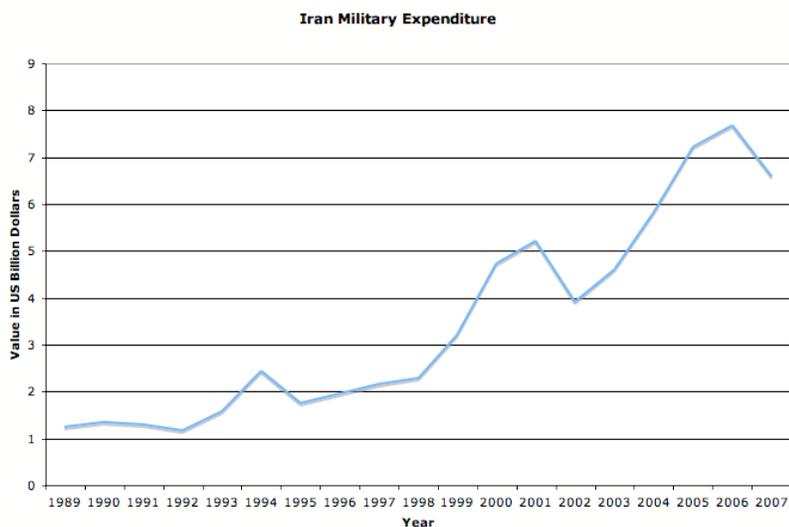


Figure 7.3: Iran's Military Expenditure, from *SIPRI's Military Expenditure Database*

NORINCO was punished the greatest, but the United States placed sanctions on five other Chinese state-owned enterprises (SOE) that exported defense technology to Iran (Tkacik 2003). China may not have increased its arms transfers to Iran, because the United States has effectively imposed political costs on exports directed to the Persian Gulf.

Another reason China may not be escalating arms is because a nuclear and aggressive Iran pits it against the United States. If China were to substantially increase Iran's military capability, particularly in terms of nuclear technology, it could eventually bring Iran to clash more severely with the United States. An Iran-United States showdown would threaten the stability of the Persian Gulf and, more importantly, threaten China's ability to reliably extract resources from Iran. (Richardson 2008). China needs the area to be stabilized if it wants to continue extracting resources out of Iran, while maintaining profitable relations with the US. Arms sales to Iran are a Catch-22 for China; the more arms exported to

Iran, the more oil it may extract but at the cost of U.S. sanctions. On the other hand, if China were to decrease arms to Iran, it would decrease its bargaining influence with the Iranian government, possibly leading Iran to decrease its energy outflows to China. Iran-US tensions force China into a delicate balancing act.

China has already experienced some of these pressures in 2007, when UN Security Council discussions over Iran's nuclear program apexed. Between 2006 and 2007, China sided with Western states, Britain, France, and the US, to vote in favor of sanctions on Iran and its nuclear programs. Despite its reliance on oil from Iran, some speculate that China needs a non-nuclearized Iran, so that China can maintain good relations with both the United States and Middle East allies (Richardson 2008). China may have leveled off its sales to Iran beginning in 1999 to maintain stable and beneficial relations with two actors that are otherwise antagonistic to one another.

An analysis of Chinese arms sold to the Iranian defense forces sheds light on why the United States has sanctioned the PRC so many times. Chinese arms sales have greatly impacted Iran's military capability in all four areas: force structure, force modernization, unit readiness, and sustainability.³ The 950 SAM's and 500 anti-ship missiles increased Iran's force structure, as the number of available weapons systems have "sky-rocketed" by these sales. The Chinese manufacture the only types of SAM's that Iran has: the Sayyad-1 and the Shahab Thageb (SIPRI Trade Register 2009). The Sayyad-1 missile in particular increases Iran's unit readiness and modernization efforts, because it is a medium-to-long-range missile. It extends Iran's firing range to 50 kilometers or 31 miles (GlobalSecurity 2008). These missile transactions allow Iran not only to have a more lethal arsenal, but also to maintain a greater defense parameter around its border.

³These are aspects of military capability as defined by the *Department of Defense*.

In 2000, China improved Iran's military sustainability through working with local defense companies in-country to manufacture over 70 infantry fighting vehicles (IFV). These IFV's are designated as Type-86 according to the Chinese weapons classifications and as Boraq according to Iran weapons classifications (SIPRI Trade Register 2009). The Boraq can transport Iranian infantry across sandy, unpaved terrain with protective covering. Most models provide a turret for support (GlobalSecurity 2008). Iranian Defense Forces function more efficiently and effectively with IFV's around Iran's borders, where territorial disputes are most likely.

This analysis of weapons shows that China strengthens Iran's military capability throughout the 1990's and into the twenty-first century. China provides Iran with a full spectrum of defense solutions, ranging from air systems to ground vehicles. China even conducts these sales at the expense of its relations with the United States. Through US sanctions on Chinese defense corporations, China has incurred high political costs from transferring weapons, particularly missile technology, to Iran. Yet, the US punishment strategy has *not* successfully deterred China from trading arms with Iran. Why is China resolved, and how do non-financial benefits outweigh the costs imposed by the US?

China: Costs and Benefits If China uses weapons sales to gain access to both energy exports and security-related benefits, as I hypothesized in my previous chapters, then I should observe China actually extracting assets out of the country and receiving energy-related imports from Iran. Current research on Chinese-Iran relations shows that China continues to strengthen its economic relationship with Iran, despite international controversy over Iran's potential nuclear program (PINR 2006). China's trade balance with Iran has risen sharply in Iran's favor. Trade has increased from 0.4 billion USD in 1992 to 20.6

billion USD in 2007. In the late 1990's, China began to cumulate debt with Iran. As of 2007, that debt reached 21 billion USD, most of which stems from China importing 13% of its petroleum commodities from Iran. As debt rises and the general trade balance also grows, China strengthens its economic partnership and coordination with Iran.

In addition to forging a robust trade relationship, China has begun investing directly in Iran, particularly in its energy sector. Chinese foreign direct investment into Iran increased exponentially in 2000 (National Bureau of Statistics of China Annual Yearbooks 1994-2007). This dramatic change corresponds with Chinese policy initiatives, in which Chinese Communist Party leadership committed to investing abroad for the sake of diversifying resource options (Cheng 2007). Prior to 2000, China had only invested a couple hundred thousand USD in Iran. Currently, China invests 140 million USD annually. Both general trade and Chinese direct investment have exponentially increased in the past seven years.

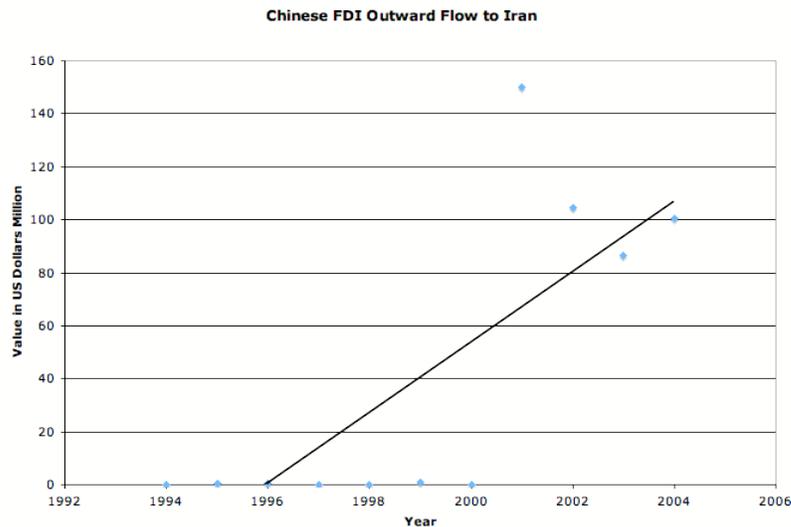


Figure 7.4: China's FDI outflows to Iran, based on *National Bureau of Statistics of China Annual Yearbooks 1994-2007*

Chinese development activities in Iran suggest that a substantial portion of Chinese investment is dedicated to increasing Iran's oil production capacity and production of other energy commodities. Between 2003 and 2004, China signed off its oil company, Sinopec, to invest 2 billion USD in the Yadavaran oil fields of Iran. Once these fields are developed, China pledges to buy 10 million tons of natural gas annually for the following 25 years (Hafezi 2007). Both countries benefit greatly from this contract; Iran not only gains a patron that is willing to develop the energy sector, but it also receives a reliable energy buyer, and China gains a new, dependable source of petroleum.

This Sinopec deal is one of many that displays coordination behavior between Iran and China. This contract also shows that China uses a good portion of its FDI to develop energy production capabilities. As recently as January 17 2009, China has signed another major oil deal with the Iranian government, which is worth 1.8 billion USD for China (Xinhau 2009). Though China's arms transfers to Iran have only generated 2.25 billion USD in the past 17 years,⁴ the succeeding oil contracts are worth far more in revenue. Oil contracts generate revenue more quickly than arms transfers, and China also reaps the benefits of favored access to Iranian fields.

In addition to the revenue oil contracts generate, China's state-owned petroleum company, the China National Petroleum Corp., receives access to develop Iran's North Azadegan oil fields (Xinhau 2009). According to Iranian news agencies, these fields will produce 75,000 barrels per day (IRNA 2009). Since China has development rights over these fields, it can cooperate with Iran to exclusively export oil to the Chinese market. After China initiated arms transfers to Iran, it has gained access to its oil fields and other energy assets. Iran and China also increased joint economic activity, expanding general trade and mutual in-

⁴This still qualifies Iran as the second most-profitable arms recipient for China.

vestment. China has created a better bargaining position with Iran by selling it arms and honoring offset projects.

7.4 Conclusion

This case study reveals that as China invests in Iran, it uses that investment to build infrastructure necessary for oil extraction. As Chinese investment in Iran has increased, so have Chinese arms transfers. This result corroborates my hypothesis and findings from Chapter 5, where I determined that arms transfers and Chinese foreign direct investment into a specific state are positively correlated. This chapter reveals a unique case; as FDI significantly increases to Iran, Chinese arms exports remain stable from year to year. The United States' punishments inflicted on Chinese defense companies may have encouraged less aggressive arms transfers.

An investigation of the Sino-Iranian relationship also highlights a sequence of actions in the arms-for-access framework. First, China sells weapons to a recipient. These arms strengthen the recipient's military capabilities and ability to deter potential threats to its stability. Next, China establishes trade relations with that supplier. After establishing healthy economic cooperation, China invests directly in the supplier's energy resources. Through gaining oil assets in Iran, China has helped to fulfill its policy goal of securing more energy resources. Iran and China also are both formerly Soviet-aligned states, which might have encouraged cooperative relations and their preferences for one another. China has pledged to strengthen Iran's defense forces, and a more lethal Iran could potentially deter threats to China's Iranian assets. Iran has received over 1,450 missiles from China in the last 14 years, including missiles that grant Iran a wider defense parameter and a

stronger projection of force.

In this case study, China's energy interests, investment preference for countries with growing GDP's, and political preference for former Soviet countries combined to create a robust arms transfer relationship. China uses Iran as a one-stop shop to fulfill multiple foreign policy goals like energy security and economic cooperation, and Iran views China as a source of development funds and weapons. This provides insight into broader recipient-supplier relations; robust arms transfers happen concurrently with economic cooperation and mutual security interests.

Chapter 8

Conclusions

Overview The preceding chapters showed that the People’s Republic of China has emerged as a unique second-tier arms supplier. It appears to be the exception rather than the rule in the arms transfer system. One would expect a second-tier supplier to use weapons primarily to gain revenue for costly, developing military forces. China proved to be a unique case. As the empirical evidence suggests, China’s need for natural resources, *not* its desire to counterbalance military production costs, encourages it to selectively transfer arms to states that are potential suppliers of energy assets. This may not be the rule of all of China’s arms recipients, but it is for many.

China uses arms sales more as a bargaining tool and less as a way to generate revenue for the military. As the research suggested in Chapter 2, the practice of using arms sales to fulfill broad policy objectives declined after the Cold War among second-tier and even first-tier arms producing states. Contrary to the average state, China transfers arms to countries it has energy assets in and countries that were formerly Soviet-aligned. China’s bloc preferences is another characteristic left over from the Cold War system. The historical

analysis of the People's Liberation Army and its use of weapons transfers in the 1980's leads us to conclude that the CCP *used to* incentivize the military to sell weapons for funding its own program. Yet, the 1990's brought on the reorganization of Chinese defense industries and stricter international monitoring on arms transfers. Since these changes, the People's Liberation Army has stopped relying on arms exports for a source of military funds, and is allocated ever-increasing funds by the government.

I explored alternative factors through a time-series analysis and a cross-section, regression model in Chapter 5. Results from my analysis verified a positive correlation between volume of arms exports and foreign direct investment transferred to a specific recipient. My empirical findings showed a unique trend between oil and non-oil countries. China increases investment and arms sales in countries where it has oil assets, where the opposite trend occurs for countries where China does not own oil assets. In other words, China displays unique patterns of arms exports and investment for oil and non-oil countries.

Limitations Despite these empirical findings, I used data on China's arms sales, foreign direct investment outflows, and oil assets that may have systematically skewed my results. I had few resources to consult concerning China's arms exports contracts and details of those contracts. The Stockholm International Peace Research Institute (SIPRI) had the only comprehensive database available. Other arms trade databases such as the United Nations Commodity Trade Statistics Database and the United States Arms Control and Disarmament Agency had inadequate data available on Chinese exports.

Errors in SIPRI's arms database for China would systematically undermine the validity of my empirical findings. After all, I not only relied on SIPRI for details on arms contracts (the year of sale, the types of weapons transferred, etc.), but I also relied on SIPRI for the

estimated worth of those contracts. For obvious reasons of security, the Chinese government does not have much publicly-available information on its arms transfers.

The limited sources of information on China's outward investment and energy assets could have also introduced biases or systematic errors into my empirical model. The government-operated National Bureau of Statistics of China supplied the only databases that organized FDI by recipient country. For this reason, I could only analyze investment trends for the available yearbooks, 1994-2007. Information on Chinese-owned energy assets was just as problematic. I was not able to find all-inclusive data on China's energy assets in other countries. For the case studies, I relied on third-party sources such as local newspapers. For the empirical data, I consulted China's major state-owned energy companies: the China National Offshore Oil Corporation (CNOOC) and the China National Petroleum Company (CNPC). These companies do not provide details on their assets in foreign countries, but they supply information on what states they have contracts or assets in. Using these sources, I was able to introduce a dummy variable for oil and non-oil states in my regression model.

Last, the narrow scope of my thesis requires that I perceive China as a unitary actor. It is unlikely that China's defense industry, its arms export control agency, and the Chinese Communist Party all have identical preference orderings. My empirical model does not capture bargaining and conflict among these three actors, nor does it show how these actors compete and cooperate at different times to secure goals unique to their areas. Another study is needed to explore domestic factors, and how domestic competition shapes trends of arms exports.

Future Steps: Incorporating Competing Domestic Actors and the Possible Effects of a Regime Change

I would follow up this study with three separate investigations: one that deconstructs China as a unitary actor, another that analyzes the costs and benefits of Chinese arms sales, and a final project that determines the effects of a regime change on China's supplier behavior. The first model would capture the unique preferences and influences of the state-owned defense companies, the arms export control agency, and the CCP under the Politburo's current leadership. If the state-owned defense companies, New Era Group and Poly Technologies, operate under their own preferences, these actors probably want to export as many weapons as possible to generate revenue. As profit maximizers, these companies are less concerned with China's overall economic objectives of securing energy resources abroad. They are also less concerned with China's reputation in the international community. In this thesis, I briefly explored the rise of state-owned defense companies and their connection to the Chinese Communist Party's leaderships. A new model should be constructed to explore how these companies have grown in profit and influence over the past two decades.

In contrast to the preferences of New Era Group and Poly Technologies, the export control agencies seek to limit exportation of sensitive defense-related commodities that could undermine Chinese security or result in international criticism. Like in the United States, these are agencies most responsible for verifying that China's arms exports follow international regulations. A study interested in the influence of export control organizations should examine the growth of China's Ministry of Commerce, the Ministry of Foreign Affairs, and the General Administration of Customs. Unlike profit-maximizing companies that want to sell as much as possible, I expect that these control agencies are risk averse, limiting the type or amount of weapons transferred.

Last, the model should incorporate policy preferences and national objectives of the government. I suggest examining arms export preferences of the Party Politburo or the Standing Committee, which the Politburo reports to. These agencies have centralized authority over the Chinese Communist Party, in addition to formal oversight over the Central Military Commission and the State Council. These are the only organizations within the Chinese government that have control over both military and civil branches. Since China can use arms sales to secure natural resources abroad, it would be interesting to determine how the CCP's mechanization of arms sales conflicts with objectives of the control agencies and the defense companies.

I expect that the CCP's selective arming of some countries, particularly oil countries, conflicts with the profit-maximizing goals of the defense companies. Many of these oil states have relatively lower military budgets than the non-oil recipients. I would also expect CCP's selective arming to conflict with the goals of the exports control agencies, which seek to adhere to China's regulations and accepted international standards. For example, these agencies may have disagreed with the CCP's decision to continue selling arms to Iran, in light of the controversy over Iran's nuclear program. Thus, the next study on "why China exports arms" should deconstruct China as a unitary actor.

Another study could explore the effects of a regime change on China's current arms export behavior. It would determine how China's supplier behavior differs if a political transformation occurs, such as the rise of a democratic state. Would a democratic China be less willing to export arms to countries with corrupt and repressive regimes? While a political transformation certainly changes policy within the state, it is less likely to affect foreign policies particularly concerned with energy. The United States example shows that even a democratic state pursues relations with authoritarian regimes to gain access to

natural resources. The United States has had economic and defense ties with the Saudi government for decades, even though the country has an absolute monarchy and long-standing human right abuses.

As long as China has the demand for energy resources, it will continue to grant resource-rich countries preferential access to its defense commodities. It is also reasonable to assume that China's need for energy resources will not diminish any time soon, as it still heavily prioritizes economic growth. Given my expectations, another study should be conducted to confirm that trends in arms exports depend more on China's unique geopolitical situation and less on the type of regime in power.

Implications My empirical findings suggest that China's demand for energy assets encourages it (1) to bargain with foreign governments not already occupied by Western interests, and (2) to arm those governments' militaries. China may use the prospect of arms sales as leverage with another government to gain access to scarce resources. This reasoning follows the arms-for-access theory explored in my literature review. The second action, arming a foreign country's military, would increase China's security by safe-guarding its assets abroad from external threats.

A late-blooming industrializing nation, China developed the high demand for natural resources after other countries like the United States. Therefore, China is optimizing its energy assets with the foreign opportunities it has left. I have established that China is a rational actor by showing that it sells weapons to dictatorships to fulfill specific policy goals. It does not empower governments like Sudan or Iran out of a moral agenda or because it is an evil empire. China trades with dictatorial regimes for practical and strategic reasons.

Taking into account this strategic opportunism, there are few policies that the United

States can pursue to prevent China from arming regimes hostile to the United States and its allies. There are no reasonable transformative actions that the US can take to eliminate China's need for energy resources. However, both US and foreign energy companies may be able to make China a more self-efficient user of resources. It is unlikely that China could ever develop an energy plan as efficient as that of Israel's¹, but it could still work toward optimizing its use of energy in every sector (transportation, commercial, industry, etc.). A policy emphasizing self-sufficiency would reduce China's need to curry favor with repressive, oil-rich regimes—therefore reducing the volume of armaments exported to these governments. For the long term, the cost of oil should incentivize China to be more efficient.

Creating an energy-efficient China does not occur overnight, nor does it occur through unilateral pressure by the United States. China needs to create a better energy policy through incremental steps, allowing time for its companies and its technology to catch up. Even if it adopts an aggressive policy of energy efficiency, China is still likely to use arms transfers to bargain with other governments. We can expect China's demand for oil to fuel its arms exports well into the next decade.

¹Israel's Ministry of National Infrastructure (2008) has recently adopted legislation to secure energy independence and resource conservation, but Israel is also $\frac{1}{50}$ the size of China.

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