

DANGEROUS WEAPONS: ARMS TRANSFER,
INTERSTATE CONFLICT, AND DEPENDENCE

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DANGEROUS WEAPONS: ARMS TRANSFERS,
INTERSTATE CONFLICT, AND DEPENDENCE

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DANGEROUS WEAPONS: ARMS TRANSFERS,
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ABSTRACT

This study is an attempt to contribute to the international security literature by illuminating why countries bolster their own security by acquiring weapons from other countries, how these acquisitions affect their propensity to initiate interstate conflict, and what policies do they adopt so as to prevent overdependence on external suppliers. I begin by demonstrating that arms transfer literature is overly focused on the suppliers' perspective. Therefore, I clarify the motivations that drive a country to import weapons. Next, I tie these motivations with the likelihood of a country taking aggressive action against its neighbor and empirically test this proposition. Subsequently, I compare arms transfer with alliances which is known in the literature as a substitute to arming. I find that arms imports do increase both 'opportunity' and 'willingness' of recipients to initiate a militarized interstate dispute but that alliances in the presence of arms imports do not have any significant effect. Finally, I use case studies of India and China to illustrate on two divergent paths to mitigating the effects of overreliance on overseas arms suppliers. In the course of this investigation I uncover the economic, political, bureaucratic,

ideological, and foreign policy that drive countries' arms importing behavior. The study aims to provide a more complete picture of the worldwide arms trade by highlighting the recipients' perspective which was thus far missing from the literature.

CHAPTER 1

INTRODUCTION

The global trade in conventional weapons is a pervasive phenomenon that touches most nation states in the international system. According to the World Military Expenditures and Arms Transfer (WMEAT) database, more than 100 countries participate in the global arms trade. Only a handful of states are either willingly absent or can afford to remain absent because they are completely self-sufficient. The pervasiveness of the arms trade has resulted in its financial value reaching over \$ 88.4 billion in 2016 (SIPRI 2016). With the estimates for global defense expenditure reaching as high as \$ 1.68 trillion in 2016, the share of weapons procured internationally seems small; a little more than 5%. However, a closer look at the numbers reveal a different story for two reasons. First, a substantial portion of global defense expenditure is driven by two countries, the United States and Russia, which rely almost exclusively on their own domestic defense industries and rarely purchase defense equipment from the international market. Second, the majority share of any country's defense expenditure is devoted to operating expenditures such as salaries, pensions, and maintenance. Accounting for both of these factors dramatically elevates the role played by arms transfers with respect to global arms industry.

But simply focusing on arms transfers for their financial significance would be to underestimate their political impact. The historical record, replete with the impact of arms transfers, attests to the political significance of global trade in weapons. From igniting cross border conflicts to cementing alliances, arms transfers touch many political

relationships both between countries and within them. More than half a century of American security guarantees to its allies Japan, Taiwan, South Korea, and others in the forms of arms transfers have reshaped the security architecture of the Pacific. It was the Soviet supply of sophisticated anti-aircraft missiles that gave Egypt the confidence to initiate a war only 6 years after Israeli Air Force (IAF) had given its country a decisive advantage in the Six Day War (Rubinstein 1977: 251-252).

But conventional weapons flows are not deployed simply as a tool of war but also a bargaining chip to achieve peace and stop political violence. Arms embargoes have been used in the hopes of ending entrenched civil conflicts as in the case of Yugoslavia in 1991, Liberia in 1992, Rwanda in 1994, and Sierra Leone in 1997 among many others (Tierney 2005: 647). Further still exporters have wielded their arms transfer relationship as tool to change the behavior of recipients with a poor record of respecting human rights as was the case with China after the crackdown in Tiananmen square in 1989 (Nathan and Scobell 2015).

Beyond matters of security, arms transfers can often serve as a link between two issues under negotiation between countries (Moon 1983; Sislin 1994).¹ As bilateral ties between the US and India have improved in the two decades since the end of the Cold War, several rounds of trade negotiations have been closely linked with the topic of arms supplies.

Even within exporting countries themselves, arms transfers have become a contentious political issue with different political parties and their supporters lining up on

¹ However, Sullivan, Tessman, and Li (2011) find little evidence for the idea that arms transfers can buy influence with the recipient state.

either side of the matter.² As Laurance (1982: 4) correctly notes, modern armaments are not just “technologically sophisticated tradable goods.” If they were, their study would be best undertaken by economists applying their standard models of international trade. In fact, Laurance argues that the political importance of conventional weapons is illuminated by the constant efforts of major powers to exert control over the flow of conventional weapons and the simultaneous efforts of recipients to thwart these efforts. Stanley and Pearton (1972) similarly make the case that arms transfers are integral part of a state’s foreign policy and therefore cannot be separated from the international system. So, if armaments are not simply tradable goods, what are they? A survey of the literature reveals that conventional weapons are an important tool in the pursuit of domestic and international goals for nation states. At the domestic level, conventional weapons help maintain a government’s monopoly on force. At the international level, arms transfers help a country deter aggressors, cement its relationship with other countries, and in some cases improve its own status. It is this international level that will be focus of this dissertation.

This dissertation is designed to make two primary contributions to the literature on arms transfer. The first is to gain a better understanding of whether countries do achieve their security related international goals through the import of weapons. I do so by theoretically demonstrating the superiority of imported weapons and how this affects a country’s decision to initiate a militarized dispute and deter aggression. Additionally, I also utilize substitutability of arms and alliances as a factor in militarized dispute

² Erickson (2015: 107) finds that since the early 1990s, arms exports scandals have broken out in Belgium, France, Germany, Sweden, United Kingdom, and others causing both domestic and international reputational damage.

initiation. The second is to better understand the decision-making process by which arms are imported which includes economic factors, domestic political constraints, bureaucratic hurdles, and foreign policy of a country. Imported weapons can enhance a country's security but also create a dependency on the supplier. To understand this dilemma of overdependence and strategies countries use to address this dilemma, I explore the case of two countries, India and China.

1.1 PREVIOUS STUDIES ON ARMS TRANSFERS

The extant literature on arms transfers has been primarily concentrated on understanding the supply side of the weapons. One part of this supplier focused literature, grounded in the economics discipline, has tackled everything from the economics of the supplier's defense sector to the growth effects of defense research and development on the supplier's economy. For example, Smith and Tarisan (2005) and Goodhart and Xenias (2012) both argue that arms transfers are often dependent on the effective price of the weapons being transferred. Other authors such as Levine and Smith (2000) show that viability of the domestic defense sector can factor into a country's willingness to transfer weapons.

Another part of the supply side literature has focused on the foreign policy motivations of exporters. For example, Hammond et al. (1983) argue that states exporting arms do so for a variety of reasons such as the desire to deter aggression against an ally, increase interoperability with the recipient, and align the foreign policy of the recipient more closely with itself. Kinsella and Tilemma (1995) find that Soviet concerns about prevailing in the cold war through their clients made them less careful in the transfers of

weapons in comparison to the United States. Exporters also use the leverage in the arms transfer relationship to affect the domestic outcomes of the recipient. For example, President Reagan promised to increase military assistance to the Philippines if its leadership would guarantee a free and fair election in 1986. In a study on American arms transfers after 1990, Blanton (2000) finds that respect for human rights affects the probability that a foreign country would receive weapons.³

Beyond foreign policy considerations, the domestic politics also play an essential role in an exporter's decision. Erickson (2015: 107) finds that in addition to being mindful of their international reputation as a responsible exporter, countries with higher levels of political transparency and pro-control NGOs are more likely to promote better arms trade practices.

Yet another strand of the literature looks at the consequences of arms transfers. Arms transfers can have a myriad of consequences at the level of domestic politics. For example, Maniruzzman (1992) finds that arms transfers increase the probability of military coups. Similarly, Blanton (1999) and Craft and Smaldone (2002) significantly increase the probability of human rights violations and political violence respectively by providing state authorities capability, previously unavailable, to engage in violent confrontation with other domestic actors.⁴ Sislin and Pearson (2001) explore the impact

³ It is important to remember that Blanton's (2000) research also suggests that once recipients pass the gatekeeping stage by having acceptable standards of human rights, variation in human rights score has no effect.

⁴ This effect of arms transfers can be seen in the recently concluded Sri Lankan Civil War. The war between the Sri Lankan state and the Liberation of Tamil Tigers Ealam (LTTE) had dragged on more than 2 decades. However, a sudden expansion of the government's military capabilities made possible through an increase in manpower and the influx of modern weapons from China brought the conflict to a dramatic conclusion in favor of the government. See "China fuels Sri Lankan war", *The Japan Times* <https://www.japantimes.co.jp/opinion/2009/03/04/commentary/china-fuels-sri-lankan-war/#.XNi1845KiUk>

of arms transfers on the likelihood of ethnic uprisings and their intensity. Furthermore, arms transfers have also been linked to the onset of interstate conflict (Pearson, Brzoska, and Crantz 1992; Craft 1999).

1.2 OUTLINE OF RESEARCH

A survey of these existing studies reveals several important gaps in the literature on arms transfers. Prominent among them is the lack of differentiation between domestic military expenditures and imported weapons. By uncovering the conditions under which countries import weapons, I uncover this difference and demonstrate that conventional weapons acquired from foreign countries are qualitatively different from those produced at home. I hypothesize that this difference is crucial to explaining the willingness of countries to engage in conflictual behavior with other states. Failure to understand this difference can leave the arms trade-interstate conflict relationship vulnerable to the criticism that whatever can be explained by arms transfers can be explained by simple measures of military expenditure. Chapter 2 investigates the motivation of a country to enhance its military capabilities and how imported weapons differ from domestically produced weapons in their ability to satisfy a country's security needs. Chapter 3 empirically tests the theory developed in chapter 2 through a discussion on the validity of various arms transfer data sources and the use of a contemporary research design.

Closely related to the of impact of arms imports on interstate conflict is the idea that alliances are also an important determinant of the latter. In particular, alliance formation and arming behavior are seen as substitutable policy options as evidenced by the arms versus allies literature. In many ways, alliances serve the same purpose as

military buildups. They augment a state's ability to impose costs on its adversary (Schelling 1966). However, arms and alliances are in many ways different. Arms procurement, either domestic or foreign, provide military capabilities without relying on an ally's reputation to fulfill its commitments. Additionally, while arms procurement is constantly changing, alliances are largely time invariant reducing their usefulness in analyzing their effect on deterrence and decision to initiate a conflict. Therefore, I also focus chapter 3 on how alliances affect interstate conflict within the context of the arms trade.

The second gap in the literature is that recipient countries face an important dilemma. All countries have a desire to be wholly self-sufficient with respect to defense acquisition. However, only a handful of countries such as the United States and Russia can satisfy the armament requirements of their military from their domestic defense sector. Yet relying on foreign supplier can introduce leverage in the arms transfer relationship that advantages the supplier. A supplier may use this leverage to extract foreign policy concessions and/or interfere in the domestic affairs of the recipient (Wheelock 1978; Catrina 1988; Sislin 1994; Kinsella 1998). Understanding the strategies undertaken to manage this tradeoff can illustrate the scope of what countries can achieve militarily in the international arena. Countries that lean towards self-sufficiency may find themselves ill equipped to achieve their strategic objectives. On the other hand, countries that rely solely on foreign suppliers may be subject to the whims of their suppliers in times of crisis and can blunt any independence in their foreign policy. In chapters 4 and 5, I use process tracing to uncover how two emerging powers, India and China, manage the aforementioned tradeoff as they modernize their militaries. By examining the

historical context, accounting for important geopolitical events, and understanding the aspirations and ideologies of these two rising powers, I illustrate the two different strategies adopted to address the issue of overreliance. The result of this comparative approach illuminates two different ways in which countries can achieve the same objective of reducing the risk associated with overdependence on overseas arms suppliers.

1.3 METHOD

The method used in this dissertation will be both quantitative and qualitative. To test the theory linking arms transfer and alliances and interstate conflict, I use large N statistical analysis with directed dyad year being the unit of analysis in chapter 3. I use data from the Correlates of War project on militarized dispute initiation among politically active dyads (Bennett and Stam 2000a; Quackenbush 2006). While the large N analysis assumes a unified state, the qualitative research in chapters 4 and 5 takes a step back by opening the “black box” of domestic policy making process and conducting a more detailed examination of the domestic and international constraints at play in the arms acquisition process. To achieve this goal, I use process tracing and follow a timeline of events in the quest for military modernization for two emerging powers: India and China.

CHAPTER 2

ARMS ACQUISITIONS: DETERMINANTS AND EFFECTS

2.1 LITERATURE ON ACQUIRING MILITARY CAPABILITIES

To understand the causes and effects of arms transfers, it is essential to first situate this phenomenon within the broader international relations literature. This begins by recognizing that states pursue power by enhancing their own military capabilities or by forging alliances (Morrow 1991). For countries pursuing the former option they must recruit personnel and then expend the necessary resources to train and equip this force to make it truly capable. The arms transfer literature deals with this concept of equipping the armed forces through foreign entities. Since one of the key features of this literature is the presence of external suppliers, theories that view domestic affairs as the only explanation for arms transfers are likely to prove incomplete. At the same time, arms transfer also cannot solely be explained by the developments in the international system. Therefore, an integrated approach is required; one that combines politics at the international and the domestic level.

As mentioned in chapter 1, this dissertation is concerned with the demand side of arms transfers which means I will attempt to understand what drives countries to import weapons. To do so, I first begin with a general discussion on why countries acquire military capabilities at all. Broadly speaking there are three theoretical approaches to explain this ubiquitous state behavior according to Eyre and Suchman (1992). The first approach utilizes strategic-functional theories and have the nation state as the central actor. According to these theories' military capabilities are the outcome of national

strategic choices based on perceived internal and external threats along with a rigorous cost-benefit analysis. The second approach relies on explanatory power of domestic affairs and explains military buildup as function of internal political competition. The third approach is sociological and focuses on norms and identity to understand why countries engage in a buildup.

In the subsequent section, I delve deeper into each of these three approaches. I will use this in-depth discussion to see if the causal logic that explains the acquisition of general military capabilities applies to the specific issue of defense equipment.

2.1.1 STRATEGIC-FUNCTIONAL THEORIES

(a) The Quest for Domestic Security

At the heart of any organized state is its desire to maintain its monopoly on the use of force. It is this monopoly that allows the state to pursue its desired policies. These policies could be the execution of laws passed through a democratic process, the desire to marginalize and oppress a certain subset of the population, or the desire of corrupt elites to maintain their grip on the economy. The state maintains this monopoly by recognizing potential challenges to its authority and ultimately neutralizing them.⁵ While organizational and bureaucratic capacity can identify internal threats to a sovereign state, it is the state's coercive capacity that can either deter threatening actors from mounting a

⁵ When using the term monopoly of force, I stress the absence of the adjective "legitimate" because that would require a normative judgment about whether the regime attempting to maintain the monopoly is legitimate by itself.

challenge or neutralize a threat when it does materialize. At the core of this coercive capacity are a country's military capabilities.⁶

Indeed, in their seminal article on the outbreak of insurgencies, Fearon and Laitin (2003: 80) asserted that "governments' police and military capabilities" are important to the viability of an insurgency in its infancy. The role of military capability, furthermore, is not limited to the outbreak of hostilities. Other scholars have found that greater military capacity reduces the likelihood of onset, increases the likelihood of termination, and shortens the duration of intrastate wars (DeRouen and Sobek 2004; Bach-Lindsay, Enterline, and Joyce 2008).

However, authors such as Henderson and Singer (2000) dispute this causal mechanism and argue that greater levels of military spending increases corruption and patronage by prioritizing the military's need for national resources thereby exacerbating grievances. Similarly, Collier et al. (2003: 125-126) question the wisdom of increasing military capacity to deter a rebellion because they find that it is not an effective way for poor and peaceful countries to reduce the risk of rebellion. As Collier and Hoeffler (2006) illustrate, in a post-conflict environment, a government might raise military spending once a peace agreement has been signed with the intention of taking advantage of rebel group disarmament.

⁶ There are many components of military capabilities including manpower, training, and equipment and these are sometimes collectively also referred to as a country's defense effort. Substantial portions of the international relations literature expresses this effort through military expenditure which is why I will use it interchangeably with military capabilities throughout this section.

(b) Pursuit of International Security

Although domestic security considerations are important, the need for security in an anarchic international system is often seen as the main driver of military spending. Glaser (2000: 252) argues that building up portfolio of military capabilities is one of the three basic options for enhancing a country's security. The other two being alliance formation and cooperation with adversaries to reduce threats. Huth and Russett (1993: 64) argue that based on the rational deterrence model, a country is less likely to initiate a militarized dispute if the expected costs of the conflict are high. A challenger's estimate of the probably of victory is based on the amount of national resources a defender can bring to bear in a conflict and include the standing of its military forces, the existing inventory of weapons, and industrial capacity. However, sometimes it may be difficult to affect an adversary's estimate of conflict costs without loudly signaling your own capabilities. Therefore, defenders often engage in costly signals such as public displays of military mobilizations or the formation of a defensive alliance (Leeds 2003: 427).

But countries must also be careful during a military buildup. Glaser (2004) argues that arming in the face of clear security threat or for the pursuit of territorial goals is optimal arming. But arming without a threat can lead to arms race or in the absence of certain political goals can be a waste of resources.

(c) Economic Motivations

While domestic security concerns are important determinants of military expenditure, economic considerations and domestic politics have often been overlooked. Two different literatures explain this variation in military expenditure through two

different lenses. The first is the defense and peace economics literature that analyzes military expenditure as a means of achieving specific macroeconomic conditions measured by economic growth and employment.⁷ One set of scholars in this literature find that military spending as a type of economic policy that can boost macroeconomic performance; in the short run by stimulating demand and in the long run by spurring technological innovation through investments in research and development which can have a positive spillover effect on the private sector. However, another set of scholars find that military expenditure by the government crowds out private investment leading to lower long run economic growth. An exhaustive study conducted by Alptekin and Levine (2012) concludes that military expenditure has a small but positive effect on economic growth in the long run. The study accounts for variations in sample, time periods, and functional forms of the models employed in the primary studies surveyed.

2.1.2 FACTIONAL THEORIES

Nonetheless, this debate in the literature ultimately leads to two relatively simple propositions that are important to domestic politics. The first, is *guns yields butter* i.e. military expenditure increases the resources available to society. The second one is *guns versus butter* i.e. military expenditure robs the economy of scarce resources that could be spent in better ways for the welfare of the population. From the standpoint of politicians, it is less important whether one proposition is at play or another in comparison to how the public perceives military expenditure. Williams (2018) finds that in advanced democracies the seemingly competing forms of expenditure, military and welfare, are in

⁷ See Deger and Sen (1995), Ram (1995), and Dunne (1996) for reviews of military expenditure-economic growth relationship.

reality complimentary. Those individuals that favor the government playing an active role in job creation are likely to view military spending positively.

Beyond public opinion there are other factors, falling under the general umbrella of domestic politics, which also affect military expenditure decisions such as institutional makeup, organizational politics, and intensity of political competition. For instance, Nincic and Cusack (1979) found that military budgets in the US expanded in the period immediately preceding an election.⁸ Similarly, Ostrom (1978) argued that bureaucratic politics play a prominent role in size and composition of the military budget. Specifically, Ostrom (1978: 941) argues that US defense policy is a response to both international and domestic environmental stimuli. Furthermore, Bolks and Stoll (2000: 585) make the case for the idea that greater levels of political competition force leaders to be more careful about the allocation of resources.

These arguments about domestic politics assume the primacy of democratically elected leaders in making decisions of military expenditure. It seems logical that military juntas and authoritarian leaders that owe their power to the military rank and file would prioritize military capabilities as a way of catering to their most important constituents. For example, military regimes in Indonesia and Myanmar prioritize weapons procurement (Pearson 1989).

However, authoritarian systems too are responsive to domestic politics albeit of a different kind. Kant argued that authoritarian regimes are less concerned about the needs of the citizens and more concerned about the interests of a small elite that may benefit from war making them less careful about military spending (Fordham and Walker 2005:

⁸ Mintz and Ward (1989) find a similar dynamic at play in Israel.

142). Yet not all authoritarian systems are alike in their defense expenditure. In personalist dictatorships, single-party regimes, and monarchies, the elites rely on factors other than the threat of force to maintain their grip on power which makes it less likely that they will have to expend resources on the military.

These factors collectively demonstrate that a range of domestic considerations, unrelated to security are important determinants of military expenditure regardless of the regime type.

2.1.3 CONSTRUCTIVIST THEORIES

The aforementioned explanations for military expenditure while seemingly comprehensive have been challenged by a different group of scholars that propose a sociological approach to national security by emphasizing the importance of norms and identity in addition to rational self-interest (Katzenstein 1996). Governments may opt to increase their military capabilities in the absence of credible internal or external threats in the pursuit of international status (Eyre and Suchman 1992; Paul, Larson, and Wohlforth 2014: 83). This line of reasoning is frequently situated in constructivist school of international relations. Accordingly, status in the international system depends not simply on material capabilities but on the recognition afforded to it by its peers.⁹ Indicators that go beyond the traditional material capabilities of a state are abundant such as membership in international institutions, playing the role of mediator or veto player in regional conflicts, and the depth and breadth of diplomatic relationships. An example of such status seeking behavior is former Soviet satellite states in Eastern Europe pursuing EU

⁹ For discussion on social construction of power in the international system, see Larson and Shevchenko (2010).

membership. Similarly, countries also pursue military capabilities in search of status and incongruous with the actual threat levels or even realistic interests.

In the next section, I examine why countries pursue the very specific element of military capabilities i.e. defense equipment. In the process, I differentiate between domestically produced equipment and imported equipment because only a comparative analysis of all choices would provide policy relevant knowledge (Baldwin 2000).

2.2 DEFENSE PRODUCTION AS A COMPONENT OF MILITARY CAPABILITIES

As discussed earlier in this chapter, the acquisition of defense equipment, especially advanced weapons systems is one of the prerequisites of a capable military. Without a well-equipped military the menu of options available to a country's leadership can become limited regardless of the policy area. For example, the acquisition of long-range submarines that have the ability to launch nuclear armed ballistic missiles can bolster a country's deterrence and strengthen a leader's hand in crisis negotiation. Similarly, the ability to transport large amounts of troops to distant locations quickly and reliably can reduce the chances of domestic unrest breaking out. To achieve these and many other goals, countries invest a substantial set of resources in the creation and maintenance of a robust industrial base that can ensure a steady supply of defense equipment.

However, this is easier said than done. Defense projects are often technologically complex, require significant investments, take long time periods to complete, and are fraught with risks. To mitigate these problems, governments either take a lead role in

their development or provide the necessary conditions to private defense firms that participate in their development. Some examples of these conditions include the shielding of critical industries from normal market competition because failure would endanger the national defense. Governments also provide generous subsidies to ensure that firms and industries continue functioning even when they make little or no profit.

Yet these same conditions that can make it possible to successfully develop a pipeline of defense equipment can also have the opposite of the desired effect. For example, excessive government involvement and the mandate to maintain secrecy means that defense industries are unable to take advantage of the competition and innovation that is the driving force of the private sector. Additionally, the provision of subsidies can deprive them of the drive to function efficiently and the protection afforded to these firms can incentivize rent seeking behavior which ultimately gives rise to politically active interest groups that work to protect their rents.

Given these challenges what other options do countries have to equip their armed forces? One way to address the drawbacks of inefficient and/or potentially risky defense undertaking is to import the necessary equipment. Accessing the international marketplace for weapons has the benefit of increasing the number of competitors vying for a country's business which under the right circumstances could prove to be an efficient use of the military budget. Importing weapons means equipping your armed forces with systems that have been tried and tested by the exporting country and are generally more capable and reliable than domestically produced weapons.

Yet despite these obvious advantages we would be hard pressed to find any country in the world that is completely and willingly reliant on imports for military

equipment. The reason for this observation is political. Leaders are highly reluctant to rely completely on foreign suppliers for fear of manipulation via the threat of supply disruptions (Catrina 1988; Sislin 1994).

It is clear that countries aim to balance these two strategies when acquiring defense equipment. But how do they make these decisions? I argue that a combination of political and economic reasons factor into the decisions. To illustrate this point, I first compare and contrast the costs and benefits of importing weapons with those of domestic defense production in the next section.

2.2.1 MOTIVATIONS FOR DOMESTIC DEFENSE PRODUCTION: WHY PRODUCE AT HOME?

The production of defense equipment is one of the most common features of a sovereign state. Nearly all countries boast of some type of defense sector. However, the question is not simply whether it exists or not but why some societies work to create it, protect it, maintain it, and even promote it while other do not.¹⁰

(a) Power and Autonomy

To further delve into this question, I begin with the example of Japan. In the immediate aftermath of the Second World War, the Japanese defense sector and its related industries lay in ruin. Article IX of the new constitution prevented Japan from accumulating any capacity to make war. This institutional straight jacket combined with a societal aversion to militarism eventually gave way to pragmatism in the wake of Cold

¹⁰ Ward, Davis, and Lofdahl (1995) provide evidence for the idea that the relationship between military expenditure and economically desirable outcomes is not universal.

War threats. By 1950s the US military administrator in Japan had begun permitting purged leaders of pre-1945 era to reenter the political system and had lifted many of the restrictions on aircraft and defense production. Ultimately the Mutual Security Agreement of 1954 led to licensed production of equipment of American origin. Among the many motivating factors of domestic defense production was the idea of *Technonationalism* (Reich 1987; Green 1998: 11). Samuels (1994) described this idea of *Technonationalism* as a fusion of technology, industrial, and national security policies that views technology as an asset of national security that needed to be created, nurtured, and maintained.

It is not a coincidence that the components of *Technonationalism* outlined by Reich, Green, and Samuels are very similar to the elements of power in international relations (Singer, Bremer, and Stuckey 1972; Singer 1988). In fact, the widely read Japanese novelist Ishihara Shinatro advocated autonomous defense production as way of adopting the idea of *Technonationalism* which would ultimately aid Japan in regaining its status as a great power. But Ishihara also saw technologically sophisticated defense production as source of pride that itself could become a source of power. Such a conception of power made up of intangibles such as national character or national morale was also advocated by Morgenthau (1967: 122). However, Quackenbush (2015: 102) doubts the existence of such intangibles and states that they have largely been discarded by analysts as having bearing on power.

As the debate over the idea of *Technonationalism* was taking place so was another set of interrelated ideas. Of particular interest was the notion of how Japan could bring balance to the lopsided US-Japan relationship. At issue was the implications of the

“Yoshida Doctrine” which argued for Japan to align itself with the US so as to recover economically from the devastation of war (Mochizuki 1984: 153). To this effect, Prime Minister Yoshida resisted the idea of Japan rearming itself by pointing to its pacifist constitution, its society wide psychological aversion to militarism, and the risk a rearmed Japan would pose to regional security. But while socialists at one end of the political spectrum argued for unarmed neutrality (Mochizuki 1984: 153), many Japanese elites were uncomfortable with Japanese dependence on the US, its primary security guarantor and arms supplier.¹¹

This idea of dependence has a long history in the international relations literature. Baldwin (1980) argues that the word dependence is usually known to have two meanings. The plain text meaning of the word implies being affected by external forces. An example of such types of dependence include the fluctuations of a national economy being partly a function of the country’s neighbors. The other meaning refers to vulnerability interdependence which implies a cost associated with the intentional disruption of the relationship. In the case of post war Japan, it was this latter definition of the term that Japanese elites were concerned about.

To better understand this concern, I dig a little deeper into this definition as it relates to defense production. Catrina (1988) following Caporaso’s (1978) definition argues that a dependent relationship on the issue of arms supply is characterized by

1. The magnitude of the recipient’s interest for the desired defense equipment. In other words, to what extent does the recipient country feel it has a need for this product or service?

¹¹ Conservatives at the other end of the Japanese political spectrum did not simply want to create balance in the bilateral relationship but rather create independence through rearmament.

2. The level of control the supplier exerts on the supply of the desired equipment.
3. The substitutability of the good.

Countries are motivated to produce weapons at home because domestic capacity releases them from the shackles of dependency. Conversely countries may have to acquiesce to the demand of a foreign partner who bridges the gap between existing and desired production capacity and risk being abandoned in time of need. Green (1998: 22) termed this as the *entrapment versus abandonment* dilemma, one that Japan found itself facing in the 1950s.

Hence, we see that maintaining adequate capacity to produce defense equipment is both a crucial component of power and autonomy which are necessary for achieving national goals in the international system. These goals could be anything from initiating a militarized conflict to taking a norm-based stance on an issue.

(b) Economic Development and Domestic Politics

In addition to enhancing power and autonomy for the pursuit of international goals, a strong defense industrial base can have benefits that lie solely within the sphere of domestic affairs. These benefits are broadly categorized as economic and political benefits. However, I argue that rather than viewing them as distinct categories it is more useful to view them as being interrelated.

First, domestic production of equipment can have clear economic benefits. As mentioned earlier in this chapter the government sector is a key factor in all macroeconomic models of growth. Employing and paying personnel, spending money on

servicing the manpower, and expenditure on facilities all stimulate demand.¹² In this section, however, I focus specifically on the production of equipment that are tools of warfighting.

The development of new weapons through research and development (R&D), the production of new weapons, and the servicing of existing weapons through spare parts and maintenance requires a diverse set of industries.¹³ Wulf (1984) identifies a series of “relevant industries” which include iron and steel, non-ferrous metals, electrical equipment, and transportation that are critical to these functions. In the modern era, defense production also requires industries devoted to advanced communication and information technology. The creation of such industrial and technological capacity has significant benefits for the overall economy. Buzan and Sen (1990) argue that many industries and sectors were made viable because of military contracts and investments from the only market participant with sufficient staying power, namely the government. Not only did these industries and sectors owe their existence to military contracts but their existence in many cases was advanced by years if not decades. Examples of such technology include mass air transport, satellite technology, telecommunications, and nuclear power generation. Additionally, investment in military R&D also creates human capital that often flows between the military and the civilian sides of the economy. Hence defense expenditure on the acquisition of weapons can generate enormous benefits to an economy.

¹² In theory a government could pay foreigners to perform military service or could have foreign entities provide services to military personnel such as healthcare. However, this is an unrealistic assumption. Therefore, importing equipment and technology is the only part of military expenditure that is subject to interstate trade.

¹³ Brauer (2003: 21) argued that with respect to developing countries, a “minimum set of skills and abilities were required including industrial structure, industrial diversification, and human capital.”

This trajectory of the government promoting critical industries has been a recurring feature of development in many countries. In many cases the underlying political philosophy that dictates such policy is a subscription to some variant of the underdevelopment theory (Gilpin 1987: 273). According to this theory the international capitalist economy works in a systematic way to keep less developed countries underdeveloped through an unequal exchange. Failure to address this unequal exchange and undertake dependent development can have some of the following consequences

1. Foreign firms gain control of key industrial sectors and crowd out local firms.
2. Repatriation of profits that can further exacerbate an already unequal relationship.
3. Prevention of autonomous technology development that is self-sustaining.
4. Distortion of the labor market.

Therefore, countries to avail themselves of the benefits of industrialization and avoid the pitfalls of dependent development, among other things, promote the domestic production of conventional weapons.

Such idealistic development strategies also have obvious political benefits. The introduction of preferential treatment towards domestic actors has the effect of creating interest groups who develop loyalties towards political elites that formulate and sustain preferential policies. With respect to the defense industrial base these interest groups include bureaucrats that award and manage contracts and firms and their employees that fulfill the contracts. Both these groups reward national decision makers with the kind of political support that allows such preferential policies to continue (Hartung 1999;

Erickson 2015). This observation has been made in several cases in both defense industries and in the case of state-owned enterprises as well. In India despite the poor track record of Defense Research Development Organization (DRDO) in efficiently producing new weapons system the country continued to award it contracts and ignored international bids on range of different weapons systems. Similarly, in Israel, pre-election periods saw increases in the purchases of equipment and the introduction of “prestigious” projects such as the Kfir and Lavi fighter planes (Mintz 1988: 370-371).¹⁴

Hence, we see that the pursuit of both international and domestic goals motivates countries to create, maintain, and even promote a defense industrial base. But despite the best efforts of many countries, many times domestic production is just not economically or technologically feasible which can leave the armed forces underequipped. In light of this observation countries often fill the capacity gap by importing weapons. In the next section, I discuss the motivations to import weapons and its benefits.

2.2.2 MOTIVATIONS FOR ARMS IMPORTS: BUYING FROM FOREIGNERS

Given the significant incentives countries have to produce weapons domestically; why then do these countries turn to foreign suppliers. The answer once again is twofold. The first set of explanations finds its origins in the defense economics literature where a vast body of scholarship has examined the largely economic incentives driving a country’s decision to import. The second set of explanations is rooted in the political motivation that stem from foreign policy objectives and the desire for security. Through the subsequent discussion, I examine both these explanations.

¹⁴ The Israeli government also has discretion over how much equipment to purchase from home versus overseas suppliers.

First, with respect to the economic motivations, scholars of defense economics provide a clear idea of the forces driving import decisions. This literature, complete with formal and empirical scholarship, treats defense equipment as a tradable good while acknowledging the imperfections of this unique market and its deviations from perfectly competitive ones. Anderton (1995) and Garcia-Alonso and Levine (2007) argue that price of weapons and income of the purchasers determine what a country can afford to buy. Once this decision is reached it has to figure out whether it is more feasible and efficient to produce it domestically, import the weapons outright or pursue some hybrid arrangement. In one of the first comprehensive empirical analysis of arms trade, Smith and Tarisan (2005) provide evidence for such theories and find that a one percent increase in the price of weapons causes a roughly one percent decrease in the quantity demanded. Additionally, they also find that the degree of market competition also affects the price. An implication of their findings is that reduced competition can lead to higher prices which affects the demand for defense equipment in the international market. From a policy standpoint this means that arms control regimes that create a cartel of suppliers with similar political goals is likely to reduce the number of weapons that flow into particular countries. Similarly, Goodhart and Xenias (2012) find that exchange rates that reflect the buying power of a national currency can have significant impact on the demand for weapons. The authors conclude that economic crisis characterized by currency depreciation can have a direct and substantial negative impact on a country's security.

Furthermore, in the same way that promoting the domestic defense industrial base can have positive effects on the broader so too can imports. If weapons are imported off

the shelf from foreign suppliers, they serve no other purpose other than enhancing the recipient's security. If, however, the weapons are developed in foreign countries but produced locally the recipient state can reap the benefits of increased local employment along with technology transfers. Countries that are driven by such a calculus often pay attention to more than just the price of the weapon and frequently demand "offsets". For example, a common tactic utilized in negotiation by importers of weapons is to demand terms that offset some portion of the eventual cost of the contract. These offsets can take many forms such as the promise to build significant portions of the weapons in the country of delivery to generate local employment, promise to eventually transfer technological knowhow through partnership with local firms and other monetary discounts (Markowski and Hall 2004).

These and other studies demonstrate that the amount and the type of weapon a country imports are strongly motivated by economic factors. But to limit our understanding of what motivates countries to import arms solely to the sphere of economics would be mistake. Foreign policy considerations, international alliances, and the need for security all loom large in such decisions.

Arms transfers are essential components of many bilateral relationships and is frequently used foreign policy tool. In the period immediately after the Cold War, many of the major arms producing countries experienced large cuts to their defense budgets. In response to these cuts the companies that once relied on domestic budgets were forced to look beyond their own borders to remain financially viable. Defense contractors frequently lobby their own governments to use bilateral relationship with potential customers in order to secure contracts. Recipients also view the decision to reject a bid or

award a contract as a tool of foreign policy that can signal policy alignment or displeasure with a supplier's country. Brazil's recent decision to award a multibillion-dollar fighter aircraft contract to Sweden's Saab and rejecting the American bid has been widely regarded as a deliberate attempt by the Brazilian leadership to condemn American spying (Winter 2013).

For countries that are more closely aligned in their security objectives such as alliance partners, arms imports are seen as a way of strengthening the relationship. Recognizing this logic, NATO members made a concerted effort in the 1970s towards "rationalization, standardization, and interoperability (RSI)" of weapons systems in part by some countries foregoing their own domestic production and importing equipment from other member states (Taylor 1982: 95). Recently when Turkey decided to import the S-400 missile system with the hopes of producing it domestically in the future, the US expressed concern that the system was not interoperable with other NATO systems (Thomas 2017: 14).

But perhaps the strongest motivation to import weapons comes from the security it provides to countries. By procuring equipment from overseas suppliers, countries can bypass the costly and potentially risky phase of indigenous development and in a short period of time dramatically increase their military capabilities. The decision to import has proved crucial for many countries in different situations. For example, Pakistan's imports of Chinese ballistic missiles allowed them to leapfrog the difficult process of developing a reliable delivery system for their nuclear weapons (Tellis 2001: 48-49). This arms transfer relationship helped bring parity to a strategic situation in which Pakistan's main rival, India, had historically maintained conventional superiority. Similarly, the flow of

weapons from the USSR to Iraq allowed for a major shift in the tactics of the latter during the Iran-Iraq War. Within 2 years of the conflict erupting the Iranian military had beaten back multiple Iraqi offensives and forced the Iraqi military to adopt a static defense strategy. However, with the relaxation of the Soviet arms embargo more advanced armored vehicles began to pour into Iraq allowing them to adopt a more flexible and mobile defensive strategy (Segal 1988: 956-957).

2.2.3 IMPORTING ARMS VERSUS DOMESTIC PRODUCTION

Having outlined the different costs and benefits of domestic arms production and arms imports, the focus now turns to identifying the differences between the two policy options and specifically how this relates to a country's desire for international security. These differences are essential to illustrate because without them, regardless of origin, all weapons' purchases could simply be categorized as military expenditure. Despite this important distinction, I am unaware of any work that has attempted to address this issue.¹⁵ The theory of why imported weapons are qualitatively superior to those produced indigenously rests on three attributes of weapons; (1) capability, (2) reliability, and (3) economic benefits. I discuss each of these attributes in the subsequent sections.

¹⁵ As mentioned in earlier parts of this dissertation arms imports have been linked to civil wars (Suzuki 2007), human rights abuses (Blanton 1999; Blanton 2000; Yanik 2006), political violence (Craft and Smaldone 2002), and even interstate conflict (Pearson, Brzoska, and Crantz 1992; Craft 1999). Yet none of these articles incorporate the idea of what motivates countries to import weapons, how those motivations affect the type and quality of weapons imported, and whether the distinct quality of weapons has any impact on outcome of interest.

(a) Capability

With respect to capabilities, imported weapons are frequently sought because their capabilities are superior to weapons systems that can be produced at home. Although many prospective buyers can produce simple systems at home, their domestic industries are just not sophisticated enough to deliver the kind of technology that their armed forces demand. Many small countries unsurprisingly find themselves in this situation. Low levels of economic development combined with a poor industrial base make it a nearly impossible to produce technologically sophisticated equipment such as modern fighter aircraft or a reliable armored vehicle. But it is important to note that many developing countries are also unable to emulate the sophistication of their more developed peers. The case of Brazil is a useful example to demonstrate this point.

Beginning in the 1960s the Brazilian government created a domestic aircraft manufacturing company Empresa Brasileira de Aeronáutica (Embraer). The company adopted a model that was inspired by the Brazilian automotive industry. Its aim was to be heavily involved in the final stage of production and as such did not invest too heavily in the risky and expensive venture of conducting R&D for each component (Krause 1992: 172; Gupta 1997: 142-144). While Embraer was still involved in civil aviation industry in the 1970s, the Brazilian air force had equipped itself with Dassault's Mirage III and the Northrop F-5. The relative success of Embraer and the Brazilian defense industry as a whole in the 1980s, led the former to enter into a joint with two Italian companies to create the AMX attack fighter that would become the backbone of Brazil's air power. At the same time Embraer produced the Tucano trainer/counterinsurgency aircraft of which the United Kingdom became an important customer (Riding 1985; Perlo-Freeman 2004:

189). Yet this seemed to be the limit to which Embraer could progress. Although the company had become emblematic of a sophisticated Brazilian defense sector that was a major exporter to the Middle East it was unable to move further up the ladder of production and create a modern jet fighter that could compete with those from Europe or the United States. By the early 2000s, Brazil invited bids to replace the AMX and 12 years after the initial bid, it settled on the Swedish aircraft Grippen produced by Saab (Vucetic and Duarte 2015: 402).

Furthermore, countries can come up against technological barriers not just in fighter aircrafts or advanced submarines but also in seemingly less sophisticated systems. Many defense projects are scrapped after decades of delay because the novelty of the project means the producer has no past experience to rely on (Bennett 2010: 99). For example, the Nimrod Airborne Early Warning (AEW) was ultimately scrapped by the United Kingdom because its technical problems could not be resolved. Similarly, Bennett (2010: 100) argues that simple projects such as Royal Australian Navy's *Bay* class minehunters faced problems because of the complexity of incorporating several different technologies into one weapon system. South Korea's experience with K2 Black Panther tank project is another example of the same problem. Despite having an export oriented and internationally competitive auto industry, the South Korean defense sector failed to produce a diesel engine that would meet the requirements of the K2 project (Gady 2017).

(b) Reliability

But it is not just the successful development or rather a lack of it that prompts countries to import. In fact, development is only one phase in an armament's long-life

cycle. Before a country's military comes to truly rely on a weapon system it must often prove its reliability. It is difficult for newly developed systems to offer this attribute. On the other hand, imported weapons can be reasonably expected to be reliable because it generally involves the transfer of technology that is at least a generation behind the one being used by the exporter's armed forces. In fact, the government subsidies that fund the development of weapons often come with export restrictions for the defense contractor. For example, during the late 1990s the United States refused to sell the latest model of the F-16 aircraft to Japan to replace Japan's aging F-1 fighter aircraft and instead agreed to jointly develop the F-2. More recently, the United States Defense Department dismissed the idea that Japan would be sold the latest F-22 fighter aircraft citing Congressional ban on such exports aimed at the US retaining its technological edge (Wolf 2007).

A mandatory waiting period before companies can export means that the manufacturer has had the opportunity to fix any unforeseen problem and the importer can witness the equipment in action and assess its reliability. For example, twenty years after being inducted into the Indian Army, it was decided that the indigenously developed INSAS rifle needed to be replaced. At the heart of the decision was the repeated failure of the domestically produced rifle to meet standards of reliability (The Economic Times 2018). In the initial phases of this tender, the shortlisted candidates were weapons that had been in operation in their home countries and in other markets for some time (Siddiqui 2018).

(c) Economic Benefits

Closely related to the qualitative superiority of imported weapons is their economic benefit. By deciding to develop a weapon system domestically not only do countries expose their military to the risk of being underequipped in a challenging security environment but they are also undertaking a massive financial risk. Projects that do not yield results can eat up valuable resources with nothing to show for; resources that could be better used elsewhere. Therefore, importing weapons is often the financially safer option. The recent Australian decision to procure submarines to replace its ageing domestic fleet provides evidence for this idea. When considering the idea of producing the ships domestically, the Australian government stated on record that despite the multibillion-dollar price tag of Japanese submarines it would still be cost efficient to import (Richards 2014). Similarly, the Turkish decision to award a missile defense contract to a Chinese firm highlights the importance of cost. Despite the difficulties of integrating Chinese technologies with existing NATO supplied platforms and protests from the United States, experts believe that Turkey's decision was driven primarily by China's low-price offer (Wong and Clark 2013). This form of cost savings has an important effect on the military budget of a country and consequently on its military capabilities. When a country imports weapons at a lower cost from overseas, the savings free up resources that might be used in other sectors of the economy or perhaps in different sections of the military budget. For example, when a country decides to shift resources from a relatively inefficient domestic arms production facility to a foreign firm it can devote the savings to greater levels of training and/or infrastructure. Such savings

can potentially enhance its military capabilities or strengthen the economic base that supports a stronger military posture.

2.3 CONCLUSION

The primary purpose of this chapter was twofold. First, situate the literature on arms transfers within the broader international relations literature. I accomplished this by demonstrating that every country is constantly in the process of acquiring ever more sophisticated military capabilities. They do so to deter internal and external threats, satisfy domestic political demands, and in some cases to do so to achieve status in the international community. Despite their strong preference to acquire all capabilities from domestic suppliers, countries are often compelled to import weapons from other countries due to shortcomings of their own defense industries.

Second, this chapter allowed me to differentiate between domestically produced weapons and imported arms with respect to their capability, reliability, and cost effectiveness. Doing so lays the theoretical foundation for empirically testing the idea in the next chapter that arms imports are unique in their ability to affect a state's decision to initiate interstate conflict.

CHAPTER 3

ARMS IMPORTS, ALLIANCES, AND INTERSTATE CONFLICT

3.1 INTRODUCTION

The discussion in the preceding chapter was primarily focused on exploring why countries acquire military capabilities. More specifically, I demonstrated in chapter 2 that the acquisition of military equipment from overseas suppliers enhances a country's security due to the superiority of imported weapons over those produced at home. Having established this idea, I now turn to examine the impact the acquisition of such weapons has on the incidence of interstate conflict. I do so by exploring the extant literature that links arms transfer and conflict and, in the process, uncover the theoretical mechanisms that connect the two. Clarifying this theoretical connection also allows me to quantitatively measure the impact of arms transfers on interstate conflict.

I also delve into the literature that views a state's arming behavior and the establishment of military alliances with other countries as substitutable policy options. Utilizing this literature, I once again attempt to quantify the effect of arms transfer on interstate conflict but this time within the context of an interstate alliance.

3.2 EXTANT LITERATURE ON ARMS TRANSFER & CONFLICT

The externalities of transferring military capabilities from one country to another has long been documented in the arms transfer literature. In particular, this body of

scholarship has focused largely on the internal instability that arms transfers cause in the form of human rights abuses, political violence, and civil wars. One of the earliest contributions made to this topic was that of Blanton (1999), who argued that a country's participation in a conflict depended on its willingness and opportunity (Most and Starr 1989) and that arms provided the opportunity to "engage in violent confrontation." Similarly, Collier and Hoeffler (2004) argued that military equipment may constitute "conflict-specific" capital that increases the opportunity for rebellion. Other studies have taken advantage of cross-national data to empirically investigate this relationship. For example, Craft and Smaldone (2002) find that arms transfers are an important predictor of political violence in sub-Saharan Africa. Moore (2012) finds that acquisition of major conventional weapons (MCW) by rebel groups increases the severity and duration of civil wars. On the other hand, Suzuki (2007) finds no connection between the onset of civil war and the import of arms. A review of these and other similar works leads to an important observation which is that this literature lacks consensus on the causal mechanism linking arms transfers and conflict.

In comparison, the scholarship connecting arms transfers and interstate conflict is sparse. Pearson, Baumann, and Bardos (1989) were among the first to explore this connection. In an examination of several African conflicts they demonstrated a positive correlation between arms transfers and interstate conflict based on the observation that the inflow of weapons increased once hostilities were already underway. However, subsequent work by Brzoska and Pearson (1994a) theorized that the cause of positive correlation was that arms transfers affected the perceptions of the changes in balance of power and fostered a sense of military superiority. One of the main shortcomings of the

aforementioned articles was that they were either largely descriptive or focused on a handful of developing countries. Craft (1999) on the other hand attempted to address this shortcoming by utilizing a long temporal span and data from more than 150 countries. Craft found that the aggregate level of conflict in the international system is positively correlated with the total value of arms imported. Although these studies brought attention to the relationship between conflict and arms transfers, they largely overlooked the underlying causal mechanisms. In the next section, I discuss the ways in which arms transfers are linked to interstate conflict by reviewing the relevant literature on military capabilities and conflict between nations.

3.3 ARMS IMPORTS AND INTERSTATE CONFLICT

Most and Starr's (1989) framework of opportunity and willingness provides the logical starting point for exploring the connecting the military capabilities and decision to initiate a conflict. With respect to interstate relations, opportunity refers to the range of options available to a country with which to interact with another country. The opportunity can take many forms such as geography or trade relationships. Geographic features inherent to a pair of countries, for example, can severely limit the options available to one or both sides. For instance, a landlocked country is highly unlikely to orchestrate a naval blockade of its enemy's ports. Conversely, a country that has mountainous or jungle terrain near the border with a rival makes it possible for that country to support a cross border insurgency campaign. Trading relationships or financial linkages can provide the opportunity to use economic sanctions as way of achieving policy goals.

On the other hand, willingness refers to the desire to have some interaction. In this chapter I focus my discussion on changes in opportunity and willingness for interstate conflict that come as a result of added military capabilities.

First, an increase in military capabilities can make a country more willing to commence hostilities. This logic stems partly from the expected utility model of war whereby countries are more likely to start a war if they perceive that added military capabilities have tilted the balance of power in their favor which makes a victory more likely (Bueno de Mesquita 1981). Other explanations of increased willingness have their origins in the domestic politics of the country in question. Increased military capabilities may increase the authority or stature of hard-line elements in the national security decision making structure that would like to use force to decide the outcome of policy disputes (Vasquez 1993; Kinsella and Tillema 1995; Craft and Smaldone 2002: 704). Prominent among these elements would be members of the armed forces. It is important to remember that added capabilities can come from a variety of sources. A military that is better trained or one that better coordinates its activities amongst the different branches of the armed forces is more likely to achieve more than ones that do not.

Second, military capabilities also expand the opportunity to initiate a conflict. By simply allocating more funds to the military, a country can substantially expand the size of the manpower available with can expand the number or type of adversaries it can engage. A military that also invests in better training can potentially carry out more complex maneuvers necessary to defeat a stronger opponent. In addition to these investments in manpower and training, a country can also create a capable military by equipping with sufficient quantities of sophisticated tools of warfighting. These tools

include everything from modern telecommunications to something as simple as a reliable rifle for its infantry.

Having established the role military capabilities play in the decision to use force, I now turn to the impact of arms transfers have, specifically imports, on such decisions. As I laid out in Chapter 2, other than a few top tier arms producers, most countries rely on arms trade as they are not self-sufficient with respect to defense production. Countries import weapons to enhance their portfolio of capabilities since domestic production is unable to fulfill their needs. In particular, imported weapons provide three important attributes that make them attractive: capability, reliability, and economic benefits. It is essential to link these attributes to the decision to initiate a conflict.

With respect to the first attribute of capability, the recent conflict in the Arabian Peninsula between Saudi Arabia and Yemen serves as a supporting example. The steady flow of American precision guided munitions and attack aircraft over the past decade to Saudi Arabia has clearly been a contributing factor in its ability to launch an offensive against an Iranian backed militia in Yemen (Walsh and Schmitt 2018). Neither Saudi Arabia nor its ally the United Arab Emirates have any capacity to produce American made fighter jets through licensed production let alone having their own indigenous capacity. The Saudi's have also been equipped with the American made Patriot anti-ballistic missile system that is designed to combat the threat of rebel missiles.

Similarly, the Soviet export of the PT-76 amphibious tank to the Indian army in the 1960s enabled the Indians to contemplate starting a war with Pakistan in Bangladesh (Singh 1984: 712). Such an offensive would be unthinkable had it not been for the import of the Soviet PT-76 amphibious tank which enabled the Indian military to crisscross a

challenging terrain that boasted large rivers. India's existing portfolio of armored vehicles would not have been able to traverse the Bangladeshi countryside and certainly not fast enough to prevent an outside intervention from Pakistani allies such as China or the US. Historical records show that the Indian armed forces were reluctant to initiate a war if it could not complete its military objectives in a short period of time (Raghavan 2013: 236). Both these examples point to the idea that arms imports deliver new capabilities that provide them the opportunity to take military action.

Reliability of weapons too plays an important role in conflict. Countries that import weapons from foreign suppliers are often able to assess the reliability of the equipment or technology before purchasing it. Mintz (1986: 231) argues that in general imported weapons are battle tested and can be deployed rapidly to the battlefield in comparison to indigenously developed weapons. Therefore, it is more likely that a strategy will succeed if it involves equipment that performs its role more reliably. For many countries with little or no domestic production capacity to speak of, the choice between seemingly reliable foreign imports and homegrown weapons does not arise. However, even when there are potential domestic competitors it is often the case that countries award contracts to more experienced foreign contractors because of the reliability and dependability of their products. Take for example, the multibillion dollar Australian Naval modernization program. Australia has had a long history of indigenously developing and even exporting naval vessels. Despite this extensive experience in the field and a relatively developed industrial sector, in 2016 Australia awarded one of its largest defense contracts to the French firm DCNS for building the next generation of submarines for Royal Australian Navy (RAN). Furthermore, within

the group of companies that were shortlisted for the final phase of the contract, DCNS emerged victorious because of the relative inexperience of its competitors (Govindaswamy 2016). China has faced similar issues in its military modernization program. While it has enjoyed success in many areas such as shipbuilding and even space flight, it continues to struggle with the development of its indigenous engine for the J-10 and J-11 fighters. Among the most widely cited problems with this engine has been its reliability despite the program having started in the 1980s (Johnson and Yoshida 2016). In comparison the capabilities of the People's Liberation Army Air Force's (PLAAF) have been bolstered by the import of Russian made Sukhoi Su-30 aircraft.

Furthermore, developing a network of foreign arms suppliers provides the necessary confidence to countries that if their domestic production during wartime is disrupted, they could continue to execute their national security strategy without devastating consequences.

Finally, importing cost efficient defense equipment can free up crucial fiscal space in the defense and the overall budget. Such space and economic flexibility can allow a country to concentrate on other components of military capability such as manpower and training. On the other hand, overreaching for advanced weapons systems produced domestically can tie up resources with little or no positive outcome for a long period of time. The experience of Israel serves as valuable evidence for this argument (Reiser 1989; Helman 2002; Hoyt 2007). In the late 1980s the Israeli leadership was faced with a ballooning costs for its marquee fighter aircraft project: the Lavi. The Lavi was meant to compete against the many of the modern aircrafts the Americans and the Soviets could come up with. However, the cost overruns from the program combined

with a downturn in the Israeli economy made it serious economic liability. Ultimately the project was abandoned and the Israeli Defense Forces (IDF) decided to purchase 100 F-16C rather than sink more resources into the project with no benefits in the foreseeable future. As the program was wound down, the technological knowhow and human capital that had been amassed by the Israeli defense sector was channeled into the Arrow missile program that achieved much greater success.

These three attributes together contribute to a country's opportunity and willingness to initiate a conflict with another country. In the subsequent sections I test the following hypothesis

***Hypothesis 3.1:** Higher levels of arms imports increase the likelihood of a country initiating a militarized interstate dispute.*

A logical extension of the theoretical arguments made in support of hypothesis one would be to assume that arms imports can also have a deterrent effect i.e. the importer of a weapon could deter attacks from would be challengers. However, for deterrence to work the capability of the potential target must be communicated clearly. Unlike alliances, that signal a credible commitment to come to the defense of their alliance partners, the capability, reliability, and other positive attributes of arms imports cannot be clearly communicated to adversaries.

3.4 ARMS, ALLIANCES, AND INTERSTATE CONFLICT: LITERATURE REVIEW

In the previous sections, I build the theoretical connection between the act of importing weapons and the initiation of conflict. In the subsequent sections, I explore how act of importing within the context of interstate alliances affects the propensity of states to initiate conflict and why. In doing so, I attempt to contribute to the ‘arms versus allies’ debate.

To begin this investigation, I review two bodies of interrelated scholarship in international relations. The first of these is the literature that deals with the impact of alliances on interstate conflict. Some researchers on this topic have focused their attention on how alliances mitigate or exacerbate the likelihood of conflict between members of the *same* alliance (Levy 1981). Another group of scholars have focused on whether countries that have an alliance are likely to be embroiled in a conflict with another country *outside* of the alliance (Smith 1995; Gibler and Vasquez 1998; Leeds 2003).

Gibler and Vasquez (1998) argued that the primary reason for the positive relationship between alliances and conflict is the perception of threat that alliances create. Other works by Gibler (2000) provided greater evidence to this argument by demonstrating empirically that territorial settlement treaties, a specific type of alliance, removes a potential source of conflict and actually decreases the probability of war. Leeds (2003) and Morgan and Palmer (2003) also come to a similar conclusion that alliances positively affect conflict. These authors argue that having the support of allies can embolden a country to take aggressive action against countries outside of the alliance.

On the other hand, Huth and Russett (1984, 1993) have shown that having an alliance can deter an attack from outside parties on account of being a member of an alliance

The second major piece of the literature concerns the tradeoff faced by countries in choosing between a policy of arms acquisition and alliances formation (Morrow 1991; Conybeare 1994; Diehl 1994; Sorokin 1994; Yarhi-Milo, Lanoszka, and Cooper 2016; Kim et al 2018). Building on the formative work of Most and Starr (1989), Diehl (1994: 160) argues that states have a variety of options to deal with the same development in their external environment. For example, when a country is attempting to combat what it views as ‘unfair’ trade practices it can either impose tariffs on goods and/or services coming from a particular country or countries engaging in the ‘unfair’ trade, initiate a trade dispute with an international institution such as the World Trade Organization (WTO), or provide subsidies to domestic companies as a way to encourage the production of substitute goods and/or services. Each one of these options can be viewed as substitutable in the quest to deal with the development in a country’s external economic environment. Similarly, when dealing with a security threat such as a rising challenger, a country can either ramp up its arms acquisition program, form an alliance with another country, or initiate a preemptive war. Therefore, it seems that certain policy responses may be substituted for another in trying to achieve the same goal. With respect to a country’s security, arms (internal balancing) and alliances (external balancing) are viewed as substitutable policy options.

However, when substituting one policy for another, states not only reap the benefits but also incur costs. With respect to arms and alliances the benefits are measured in the terms of added security achieved while the costs are measured in terms of the level

of autonomy retained. Conybeare (1994) views this tradeoff “as a question” of investing in security whereby every investment has the potential to return rewards but also carries with it risks. For example, alliance formation provides the benefit of rapidly increasing security. Countries that form alliances can often call upon the diplomatic or military resources of their ally which can be deployed to deal with a threat or aid them in their military adventures. However, alliances can also be a source of risk in terms of abandonment or entrapment. When a country receives a security guaranty from an ally it begins to plan its military needs and strategies with the knowledge that its capabilities will be augmented by those of its ally. But if an ally fails to live up to its obligations for any reason it can leave the country vulnerable and jeopardize its security. For example, Sabrosky (1980) and Siverson and King (1980) find empirical evidence for the idea that countries come to the aid of their alliance partners during a period of war only 25% of the time. However, Leeds, Long, and Mitchell (2000) find, after closer examination of the specific treaty obligations, that states come to the aid of their allies 74.5% of the times. Additionally, this seemingly high number masks the nuances in alliance reliability. Quackenbush (2006) finds that countries outside of the alliance will exploit the asymmetry in the reliability within an alliance and attack the one deemed more reliable to reduce the risk of its partner coming to its aid.

The other part of the risk of an alliance comes from the idea of entrapment. When a country cements a security agreement with an ally whose foreign policy objective is not closely aligned with itself it may become entangled in the military (mis)adventures of its ally. At this stage the country can either suffer the security repercussions of joining a conflict or suffer the reputational cost of being an unreliable ally (Morrow 2000: 71).

As mentioned in chapter 2, arms acquisitions programs can enhance a country's security, yet such a policy is accompanied with benefits and risks similar to alliance formation. Domestic arms production policies can add to the strength of the nation's military by providing it with the necessary equipment to deal with security challenges. The benefit of such a program is that it is typically independent of outside forces and therefore can be ramped up or toned down to suit the nation's need. Such flexibility free from outside influence enhances the autonomy of the arming country in the realm of foreign affairs. At the same time arms acquisitions can also present risks. If the policy of arming relies completely on domestic arms industry the risk stems from failures of research and development (R&D), cost overruns, or production delays. On the other hand, as I have demonstrated in chapter 2 and chapter 3, if the policy of arming relies even partially on weapons sourced from external suppliers, the arming country can find itself vulnerable to sudden supply disruptions. Such a risk of sudden disruption can have a similar effect on a country's security as the refusal of an alliance partner to honor its treaty obligations during periods of crisis.

3.5 EFFECT OF ALLIANCES ON CONFLICT INITIATION

As mentioned in the literature review section, many scholars have found that membership in a military alliance can embolden members to behave aggressively against third parties. It is important to understand the mechanism that leads these scholars to this conclusion. Smith (1995) and Leeds (2003) argues that offensive alliances, wherein a partner promises to assist an ally when a conflict is initiated, emboldens the ally to escalate a disagreement into an actual conflict. According to Leeds (2003: 430), the idea

is not that an offensive alliance increases the “desire for aggression” but rather makes it more likely that a challenger will pursue a conflictual route to dispute initiation.¹⁶ Leeds’ argument is consistent with opportunity and willingness framework of Most and Starr (1989). Alliances do not necessarily affect the willingness but can certainly expand the range of opportunities for conflict. When comparing allies to arms, alliance partners can provide weapons, open a new front in the war to overwhelm the opponent, provide additional manpower or financial support to benefit its ally, and use sanctions to damage the target. In a similar vein Sprecher (2004) argues that members of alliances formed with offensive goals are more likely to be involved in a conflict with a country outside of the alliance than members of alliances formed with defensive goals. Morgan and Palmer (2003) makes a similar case through a capability-based model. These authors argue that as capabilities of a state increase through an alliance it is more likely to engage in ‘change seeking’ behavior such as dispute initiation.¹⁷

On the other hand, Kang (2007: 64) makes the case for an information-based impact of alliances on dispute initiation. Kang states that since alliances are generally credible, countries that do have partners that are signatories to an alliance agreement are less likely to back down and do act more aggressively assured in the knowledge that their partner will fulfill their commitments.

It is clear from this discussion that alliances have a material impact on the probability of dispute initiation against a potential target. This observation combined with

¹⁶ The data on arms trade reveals that almost all countries source some portion of their military equipment portfolio from foreign suppliers and only a handful of countries throughout history have been completely self-sufficient.

¹⁷ Kimball (2006) takes a different approach to the conflict-alliance debate by arguing that the same processes that lead to the initiation of conflict also lead to the formation of an alliance. Therefore, Kimball (2006: 386) advocates for a different econometric strategy to reveal the interconnectedness between conflict initiation and alliance formation.

my expectations laid out in the previous sections that arms imports embolden countries to engage in conflictual behavior with other countries creates an even more dangerous situation than if each condition was met in isolation. This leads to my second hypothesis as follows:

***Hypothesis 3.2:** A challenger that has an ally and imports weapons for its own security is more likely to initiate a militarized interstate dispute than challengers that do not have an ally.*

3.6 RESEARCH DESIGN

To empirically test hypothesis 3.1 and 3.2, I employ a dataset with all states in the international system interacting with all other states within their politically active environment (Quackenbush 2006).¹⁸ The unit of analysis for this dataset is directed dyad year and the temporal range is twenty-seven years beginning in 1973 and ending in 1999. My temporal range is dictated by the availability and the reliability of the data.¹⁹

3.6.1 Independent Variable

To gather data on arms imports, I utilize the United States Department of State's World Military Expenditures and Arms Transfer Database (WMEAT). Arms imports are defined as all defense related expenditures obtained from foreign suppliers. The dataset

¹⁸ I utilize the politically active dyads dataset created by Quackenbush (2006) instead of politically relevant dyads (Lemke and Reed 2001) as it has shown to be a better predictor of conflict.

¹⁹ The methodology for calculating arms imports in WMEAT has been changed often. However, the most prominent change is visible in the data after 1999 where imports more than 1 million and less than 50 million were completely omitted and coded as missing.

includes the value of arms imports for 182 countries in constant 1999 US dollars for all years between 1973 and 1999. The advantage of the WMEAT database is that it measures actual deliveries as compared to commitments or future deliveries. The choice of the time period is dictated by the need to maintain consistency. Beginning from the year 2000, the database records all observations less than 50 million dollars as missing data making the comparison of the post-2000 data with the pre-2000 data impossible.

The literature on arms transfers is divided on the use of different datasets. Some authors utilize the Stockholm International of Peace Research Institute (SIPRI) that tracks the transfer of major conventional weapon systems measured in trend indicator values (TIV). The TIV is based on the “known unit production costs of a core set of weapons” and is “intended to represent the transfer of military capabilities rather than the financial value of the transfer” (Bromley, Holton, and Simmel 2012: 1-2). This approach has several drawbacks especially when utilizing arms transfers as a variable in conflict studies. First, TIV omits small weapons and light arms (SALW), services, and construction. Although these omissions may not matter to large recipients that are able to produce SALW, it can be crucial for countries engaging in small scale actions. Second, TIV utilizes production costs and not the actual amount of resources expended by recipient countries. Such a measure poses a problem from the standpoint of comparing arms transfers to gross domestic product (GDP) or military expenditure (ME).

Considering these shortcomings, there are two advantages of using the WMEAT data. First, it allows for comparison across time and countries (Goldsmith 2003). More importantly, measuring arms imports or defense expenditure as a percentage of the GDP

indicates the ‘defense effort’ or the amount of national resources a country is willing to part with in the pursuit of its political interests.

To calculate the independent variable, I divide the arms imported by a country in a year and divide it by the gross domestic product for the challenger. Such a measure is consistent with my theory that the amount resources expended by a country for increasing security should be considered.²⁰ Furthermore, I take a three-year lagged average of both these variables. There are two reasons for this specification. The first is to address the issue of endogeneity. Second, taking a three-year average would be sufficient to overcome any sudden spike in arms imports.

$$\begin{aligned} & \textit{Arms Imports as a fraction of Gross Domestic Product} = \\ & [(Arms Imports/GDP)_{t-1} + (Arms Imports/GDP)_{t-2} + (Arms Imports/GDP)_{t-3}]/3 \end{aligned}$$

In addition to data on arms imports (WMEAT), the primary independent variable to test hypothesis 3.2 is the existence of an alliance between the challenger and another country that is not the potential target. The data on alliances is obtained from ATOP 4.0 dataset (Leeds 2018). The ATOP dataset consists of four types of agreements; offense pacts, defense pacts, nonaggression pacts, and consultation pacts. I focus my empirical analysis on the first two.

Offense pacts promise military assistance during times when the partner has not been attacked but rather after the alliance partner has initiated aggressive action against an outside target. Mutual defense pacts are agreements to come to the aid of a country if it is

²⁰ A state's defense spending as a proportion of its gross national product (GNP) is also used as an indicator of its “defense effort” (Olson and Zeckhauser 1968 in Palmer 1990: 191).

attacked by a third party. I test hypothesis 3.2 with the alliance variable which takes the value of 1 when the challenger has either an offense pact or a mutual defense pact with a country that is not the potential target.

3.6.2 Dependent Variable

The dependent variable is coded as 1 if the challenger initiates a militarized interstate dispute (MID) and 0 if not. A MID is an international interaction that involves threats, displays, or actual uses of force that are explicit, overt, and government sanctioned (Jones, Bremer, and Singer 1996: 168). I exclude all decisions to join ongoing disputes and therefore limit my analysis to original participants of a MID. This data is obtained from the Dyadic Militarized Interstate Dispute 3.0 data set (Maoz et al. 2019).

3.6.3 Control Variables

To isolate the impact of the independent variable, I employ a series of control variables in the statistical model the first of which is the growth in military expenditure. First, I control for general military expenditure. This is essential in order to attempt to empirically test the idea that arms imports are indeed different from regular military expenditure based on their unique qualities as discussed earlier in the chapter and in chapter 2. To do this, I construct a variable that is a three year lagged average of the growth in military expenditure of the challenger as shown in the following equation (Singer 1979; Diehl and Kingston 1987).

$$\text{General Military Expenditure} = \frac{[(\text{Military Expenditure})_{t-1} + (\text{Military Expenditure})_{t-2} + (\text{Military Expenditure})_{t-3}]/3}$$

The data on military expenditure is obtained from the Correlates of War Project's National Military Capabilities (NMC) dataset and the data on GDP is extracted is obtained from Gleditsch (2002). Both these individual components are measured in constant 1999 US dollars to make it comparable with the data on arms imports.

Next, I include capability ratio, a variable that serves as an important predictor of conflict initiation. Capability ratio reflects the balance of power between the challenger and the target. This variable uses the Composite Indicator of National Capabilities (CINC) scores of both countries in the dyad collected by the Correlates of War Project (Singer 1988; Singer, Bremer, and Stuckey 1972). The capability ratio is calculated by dividing the CINC score of the challenger by the sum of the CINC scores in the dyad. The variable has a maximum value of 1 and a minimum value of 0 with smaller values representing weaker challengers and larger values representing stronger challengers. Therefore, I expect challengers with a higher capability ratio to be more likely to initiate a conflict.

In addition to capability ratio, I also control for domestic politics of both countries in the dyad. Several studies that are part of the democratic peace literature demonstrate that a pair of democracies are less likely to fight with one another in comparison to pairs of countries where one of them is a non-democracy (Russett and Oneal 2001). The data on domestic regime type is included is obtained from the Polity IV dataset (Marshall and Jaggers 2016). I code the variable of joint democracy as 1 if both countries in the dyad have a polity score 6 or higher and 0 otherwise.

Finally, I control for contiguity which serves as a proxy for geographic opportunity. The data on contiguity is obtained from the COW Project's Direct

Contiguity Dataset. The variable takes the value of 1 if the two countries in the dyad share a land border or are separated by 12, 24, 150 miles of water. The same variable is coded as 0 if these conditions are not met.

3.4.4 Model Specification

I employ a logistic regression model with robust standard errors by clustering on dyads which results in the following equation.²¹ I also control for duration dependence as prescribed by Carter and Signorino (2010) by including cubic polynomials of time since last conflict within the dyad. As a robustness check I also test my hypothesis using a Generalized Estimation Equation (GEE) as recommended by Bennett and Stam (2000b) but it does not change the direction or statistical significance of my primary independent variable

$$\text{Probability of MID Initiation} = \beta_0 + \beta_1(\text{Arms Imports}) + \beta_2(\text{General Military Expenditure}) + \beta_3(\text{Joint Democracy}) + \beta_4(\text{Capability Ratio}) + \beta_6(\text{Contiguity})$$

$$\text{Probability of MID Initiation} = \beta_0 + \beta_1(\text{Arms Imports}) + \beta_2(\text{General Military Expenditure}) + \beta_3(\text{Alliance}) + \beta_4(\text{Arms Imports} * \text{Alliance}) + \beta_4(\text{Joint Democracy}) + \beta_5(\text{Capability Ratio}) + \beta_6(\text{Contiguity})$$

²¹ Furthermore, omitting some commonly used control variables such as trade dependence, economic growth rates, and a dummy variable for the cold war does *not* change our results in any meaningful way.

3.7 RESULTS

The results of the logistic regression model in table 3.1 and the generalized estimation equation in table 3.2 provide evidence for the argument outlined in the earlier sections of this chapter along with hypothesis 3.1. In table 3.1, I show that as arms imports as a percentage of gross domestic product increase the likelihood of a challenger initiating a militarized interstate dispute also increase while controlling for general increases in military expenditure.

Table 3.1: The Effects of Arms Imports on the Probability of Militarized Dispute Initiation, 1973-1999

	All Politically Active Dyads (Logistic Regression)	Dyads not involving the US and Russia (Logistic Regression)
Arms Imports	0.5521* (0.3328)	0.7294** (0.3547)
Military Expenditure	-0.0006 (0.0013)	-0.0002 (0.0013)
Joint Democracy	-0.3822*** (0.0853)	-0.3963*** (0.1001)
Capability Ratio _[t-1]	0.027 (0.141)	0.2806 (0.462)
Contiguity	1.822*** (0.122)	2.099*** (0.135)
Constant	-2.1029*** (0.1973)	-2.247*** (0.224)
<i>Observations</i>	106182	93778
<i>Wald Chi²</i>	2723.10***	2328.07***
<i>Pseudo R²</i>	0.3304	0.3547
<i>AIC</i>	10053.63	8251.461

Note: *** $p < .01$; ** $p < .05$; * $p < .10$ (two-tailed tests)
Numbers in parenthesis are robust standard errors.

Furthermore, this impact can be seen even as I control for other common predictors of conflict initiation such as joint democracy, capability ratio, the existence of rivalry, and contiguity. In table 3.1, I test the hypothesis 3.1 on two populations. The first

one is all politically active dyads. The second one excludes the US and Russia as two countries that are involved in a large number of militarized disputes but are unlikely to import weapons because of their large military budgets and sophisticated defense sectors. For both populations the results point to the notion that arms imports increase the probability of a militarized dispute being initiated.

I find further evidence for hypothesis 3.1 in the results of the Generalized Estimation Equation model displayed in table 3.2.

Table 3.2: The Effects of Arms Imports on the Probability of Militarized Dispute Initiation, 1973-1999

	All Politically Active Dyads (GEE)	Dyads not involving the US and Russia (GEE)
Arms Imports	1.0346** (0.3509)	1.2102** (0.3602)
Military Expenditure	-0.000012*** (0.00001)	-0.0000127*** (0.00001)
Joint Democracy	-0.581*** (0.117)	-0.6059*** (0.1377)
Capability Ratio	0.0678 (0.174)	0.270 (0.194)
Contiguity	2.802*** (0.118)	3.0890*** (0.1326)
Constant	-5.227*** (0.1341)	-5.3663*** (0.156)
<i>Observations</i>	105404	93007
<i>Wald Chi²</i>	1398.43***	1223.83***

Note: *** $p < .01$; ** $p < .05$; * $p < .10$ (two-tailed tests)
Numbers in parenthesis are robust standard errors.

To assess the substantive significance of arms imports, I use the clarify simulation package designed by Tomz, King, and Wittenberg (2000). The software allows me to vary the independent variable to uncover its effects on the dependent variable while holding other explanatory variables at a particular level.

To rigorously test my hypothesis, I hold two variables constant. The first variable of contiguity is set at 0 indicating that the two countries are noncontiguous. I do so because distance greatly reduces the geographic opportunity for conflict initiation. Next, I hold the variable of joint democracy at 1 which indicates both countries are democratic. Democratic peace theory informs us that democracies are less likely to fight one another which should reduce the likelihood of a challenger initiating a conflict. Under this overall restrictive scenario, the probability of challenger attacking a potential target is greatly reduced and could potentially nullify any effect arms imports would have. Once again, I use two different populations, all politically active dyads and politically active dyads excluding the US and Russia in this analysis.

TABLE 3.3: Change in the Predicted Probability of Conflict Initiation

Arms Imports	All Politically Active Dyads	Politically Active Dyads not involving the US and Russia
25 th → 50 th Percentile	0.00004 (0.00001, 0.00009)	0.00008 (0.00003, 0.00014)
50 th → 75 th Percentile	0.00016 (0.00001, 0.00032)	0.00029 (0.00011, 0.00049)
75 th → 90 th Percentile	0.00061 (0.00002, 0.00124)	0.0011 (0.00042, 0.00187)
90 th → 99 th Percentile	0.01290** (0.00055, 0.02693)	0.02327 (0.00816, 0.04103)
Min → Max	0.07952 (0.00253, 0.18607)	0.14825 (0.04069, 0.28980)

Numbers in parentheses represent 90% confidence intervals

Despite this restrictive scenario, table 3.3 shows that as the independent variable goes from the 75th percentile to the 90th percentile the likelihood of MID initiation increases by 0.1 percentage points. However, when arms imports increase from the 90th percentile to the 99th percentile the same probability increase by 1.27 percentage points in

case of all politically active dyads and 1.16 percentage points for all active dyads excluding the US and Russia.

These results point to the detrimental effects of arms imports even on a potentially peaceful pair of countries. One concern about the results in table 3.3 maybe that a small number of countries in a short span of time may be driving the results here. However, a close examination of the data reveals that all increases in the probability of MID initiation are caused by a group of at least 25 countries or more.

Table 3.4: The Effects of Arms Imports on the Probability of Militarized Dispute Initiation, 1973-1999

	All Politically Active Dyads (Logistic Regression)	All Politically Active Dyads (Logistic Regression)	All Politically Active Dyads (Logistic Regression)
Arms Imports	0.7294** (0.3547)		0.1093 (0.3360)
Military Expenditure	-0.0002 (0.0013)		-0.0006 (0.0013)
Alliance		0.1551 (0.0998)	0.1015 (0.0935)
Arms Imports*Alliance			0.9069* (0.4856)
Joint Democracy	-0.3822*** (0.0853)	-0.4530*** (0.0992)	-0.3656*** (0.0851)
Capability Ratio	0.027 (0.141)	-0.0545 (0.1410)	0.0142 (0.1427)
Contiguity	1.822*** (0.122)	2.6131*** (0.1077)	1.8620*** (0.122)
Constant	-2.1029*** (0.1973)	-3.7513*** (0.1456)	-2.1029*** (0.1973)
<i>Observations</i>	106182	143298	106182
<i>Wald Chi²</i>	2723.10***	1690.53***	2813.96***
<i>Pseudo R²</i>	0.3304	0.2622	0.3308
<i>AIC</i>	10053.63	14584.03	10052.07

Note: *** $p < .01$; ** $p < .05$; * $p < .10$ (two-tailed tests)
Numbers in parenthesis are robust standard errors.

With respect to hypothesis 3.2, the results as shown in table 3.4, 3.5, and figure 3.1 indicate that there is no significant impact of alliances on the likelihood of dispute initiation by a would-be challenger within the context of arms trade. Although table 3.4 and 3.5 provide some support for the conditional hypothesis 3.2, the marginal effects figure 3.2 tells a different story.

Table 3.5: The Effects of Arms Imports on the Probability of Militarized Dispute Initiation, 1973-1999

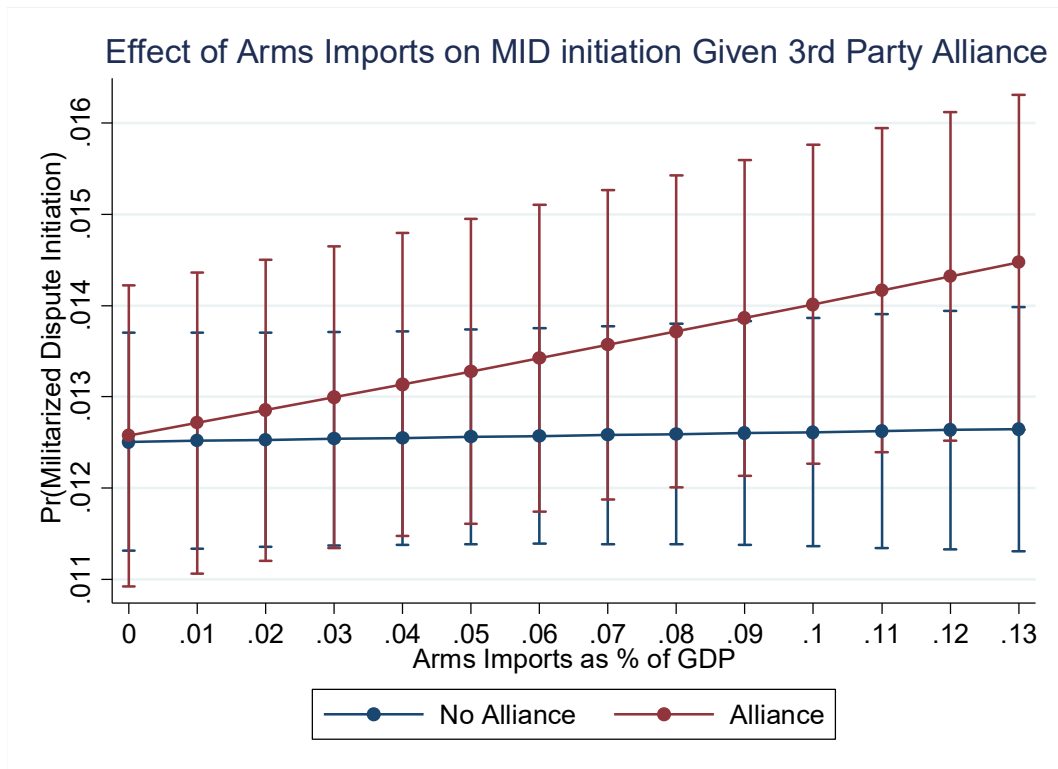
	All Active Dyads not involving the US and Russia (Logistic Regression)	All Active Dyads not involving the US and Russia (Logistic Regression)	All Active Dyads not involving the US and Russia (Logistic Regression)
Arms Imports	0.5521* (0.3328)		0.1064 (0.3501)
Military Expenditure	-0.0006 (0.0013)		-0.0002 (0.0013)
Alliance		0.0528 (0.1140)	0.0067 (0.1085)
Arms Imports*Alliance			1.2679*** (0.4856)
Joint Democracy	-0.3963*** (0.1001)	-0.4881*** (0.1152)	-0.3946*** (0.1001)
Capability Ratio	0.2806 (0.462)	-0.3477 (0.2537)	-0.2763 (0.2534)
Contiguity	2.099*** (0.135)	2.8262*** (0.1228)	2.1178*** (0.1432)
Constant	-2.247*** (0.224)	-3.7795*** (0.1675)	-2.2647*** (0.2337)
<i>Observations</i>	93778	128442	93778
<i>Wald Chi²</i>	2328.07***	1558.37***	2511.61***
<i>Pseudo R²</i>	0.3547	0.2879	0.3550
<i>AIC</i>	8251.461	12267.57	8251.228

Note: *** $p < .01$; ** $p < .05$; * $p < .10$ (two-tailed tests)
Numbers in parenthesis are robust standard errors.

In figure 3.2 the y-axis plots the probability of dispute initiation for challengers having a 3rd party alliance indicated in red and those without indicated in blue. On the other hand, the x-axis ranges from the 1st to the 99th percentile of observations for the arms imports

variable. Close examination of the plot reveals that countries with a 3rd party alliance are *no* more likely to initiate a conflict than their counterparts without a 3rd party alliance across the aforementioned range of arms imports.

One inference of this observation is that the presence of an ally does not significantly embolden a country to engage in conflictual behavior with a potential target in the same way that arms imports do. This implies that countries may not be getting the same level of capabilities from an alliance that they get from arms imports. This can be problematic given that the autonomy sacrificed in becoming a signatory to an alliance agreement is presumably higher in comparison to the constraints experienced when countries become dependent on one or a handful of overseas arms suppliers.



3.8 DISCUSSION

The results give preliminary, yet strong, indication that arms imports exacerbate the security situation within a dyad making bilateral relationships more conflictual. More specifically, the influx of weapons enhances the military capabilities for a potential challenger which in turn emboldens it to take a militarized approach to disputes. The findings of the empirical analysis in this chapter are important for both academic research on global arms trade and policy makers. As proliferation of weapons in the post-cold war era increases, exporters and multilateral organizations should examine closely how the flow of weapons alter the opportunities for conflict.

Furthermore, the results of this chapter's empirical investigation also indicate that alliances within the context of arms imports do not contribute in any meaningful way to the decision of conflict initiation. The results present an important addition to the arms versus allies debate. My results seem to indicate that alliances, that usually demand substantial concessions in terms of autonomy, may not provide the kind of returns that arms imports do with respect to military capabilities. Refining the measurement process of the variables involved could provide a more complete answer and perhaps a substantial contribution to the literature in the future.

Additionally, important questions remain unanswered in the literature. A logical extension of this research should focus on whether weapons imports increase the severity of conflict measured either in the duration or fatalities. Similarly, scholars can also explore whether arms imports increase the probability of succeeding in a military conflict.

Having elaborated the mechanisms by which arms imports are different from domestically produced weapons and how these imported weapons have an impact on interstate conflict, in the next two chapters I delve deeper into arms acquisition process. In particular I examine factors such as national ideology, domestic politics, foreign policy, economic reform, and technology that are determinants of this arms acquisition process. I do so by taking a process tracing approach to the case of India and China.

CHAPTER 4

DEFENSE ACQUISITION AND ARMS TRANSFER

DEPENDENCE: THE INDIAN EXPERIENCE

4.1 INTRODUCTION

As noted earlier in chapter 2, how countries acquire weapons cannot simply be explained by economic factors. Political conditions, both domestic and international, play a crucial role in the defense acquisition process. Producing weapons domestically can be costly, risky, and time-consuming. Importing weapons, on the other hand, creates a form of dependence that can be used by the supplier to extract policy concessions. Countries often face a tradeoff between these two policy options. The goal of this and the subsequent chapter is to contribute to the central topic of this dissertation i.e. arms transfers by understanding its role in the overall process of defense acquisition. In contrast to chapter 2 and 3 which focused on the effects of arms transfer by outlining the unique attributes of imported weapons, chapter 4 and 5 provide a window into how arms imports fit into a country's overall strategy of arming and the costs and benefits associated with it. Furthermore, I acknowledge that the complex interplay of foreign policy, domestic politics, and ideology is difficult to quantify and therefore employ a qualitative case study approach for this chapter and the next.

4.2 CASE SELECTION AND RESEARCH METHOD

In any qualitative study the selection of cases is of utmost importance. I select the cases of India and China not only because they are large systemically important countries in the international system but because their differing routes to military modernization allow us to understand the aforementioned tradeoff inherent in the defense acquisition process for emerging powers. Both countries share a similar history of having a planned economy that stifled economic growth and led to a general neglect of the armed forces, leaving them with unreliable equipment with minimal capabilities. As the Cold War ended, both countries shed their socialist economic ideology, resulting in a sustained period of growth which in turn offered the material resources to modernize their armed forces. However, they end up using different strategies to build a more capable military. By examining the evolution of each country's foreign policy, decision making with respect to defense acquisition, economy and how it relates to the defense sector, and domestic politics I uncover the two markedly different strategies.

For the purpose of analyzing these strategies, I choose process tracing as a tool. Process tracing is a single case research method that allows scholars to make within case inferences about the presence (or absence) of a causal mechanism. According to Van Evra (1997) the cause and effect link that connects the independent and the dependent variable is unwrapped and divided into smaller steps, and for each of them the observable evidence is evaluated. Beach and Pedersen (2013) make the case that process tracing is similar to a criminal trial where each of the component steps in the process is evaluated and the conclusion of whether the causal mechanism exists is determined by removing reasonable doubt.

Utilizing process tracing requires a careful examination of the timeline of events since independence for both countries. Accordingly, each case is broadly divided into six sections. The first two sections outline the foreign policy and defense acquisition process during the early years of both countries. The next two sections tackle the same topics but in an era of change that begins with the 1970s and continues until the end of the Cold War. The last two sections follow the same format but in the post-Cold War era, combined with a discussion of what the future holds for both countries on the issue of defense procurement.

4.3 THE CASE OF INDIA: INTRODUCTION

In this chapter, I focus my attention on the experience of India with respect to defense acquisition. I begin by outlining the ideology and the historical background that setups independent India's strategy for defense production and arms imports. Next, I explore how two important conflicts, the Sino-Indian War of 1962 and the Indo-Pakistan War of 1971 changed India's thinking on defense acquisition and foreign policy. Finally, I demonstrate how modern India's defense policy is centered around acquiring defense equipment from a diverse set of foreign partners that reflects its relatively newfound pragmatism in foreign affairs without surrendering its independence with respect to external and internal affairs.

4.4 INDIAN FOREIGN POLICY: 1947-1971

Despite the contemporary discussions of India as an emerging power, India's trajectory to become an important regional and international actor was an afterthought in

the period immediately after its independence from United Kingdom (UK) in 1947. For much of India's modern history, the country had served as the linchpin of British mercantilist policy, and decades of economic exploitation had left the country deeply impoverished. From the beginning of the 20th century onward, a nationalist movement had become increasingly popular with the masses and mobilized them in support of independence. Unlike other anti-colonial movements in Africa and Asia²², India's political leadership was steadfastly committed to the idea of nonviolent protest as a means of achieving independence (Cowshish 2016: 252-253).

I contend that the idealistic nature of the freedom struggle, a strong desire to be free from foreign influence, and decades of economic stagnation are contextual factors crucial to the development of India's foreign policy. The effects of these three factors were clearly visible in post-independence India. The country's new Prime Minister, Jawaharlal Nehru, neglected the armed forces, constructed a Soviet-inspired socialist economy, and worked to nurture the Nonaligned Movement (NAM). However, the foreign policy of newly independent India was subordinate to the larger purpose of alleviating poverty. It is difficult to overstate the primacy of this goal. Mahatma Gandhi's witnessing of the abject poverty in the countryside was the driving force behind his political activism and that of his followers.²³ Although his successor Nehru was an educated elite who had very little in common with the ordinary Indian, his involvement in the independence movement under Gandhi's leadership made it clear to him that alleviating poverty would be the prime mandate of any democratically elected

²² Examples of outright armed struggle can be found in Angola, Zimbabwe, and Malaya.

²³ One of Gandhi's first acts after returning to India from South Africa in 1915 was a tour of Indian villages.

government. Nehru saw foreign entanglements and Cold War rivalries as obstacles to this overarching goal. But his desire for the benefits of Soviet style rapid industrialization led him to admire the Soviet Union (USSR) and develop a strong relationship with its leaders. The direct result of this combination of Nehru's thinking and the experiences of the movement for Indian independence were that the nascent Indian state prioritized self-sufficiency and would pursue it through a command-style economy.

The consensus among scholars today is that this state-led model of development stifled innovation, discouraged entrepreneurship, stagnated industrial development, and encouraged rent-seeking behavior among the bureaucrats, resulting in poor economic performance for many decades after independence (Panagariya 2005; Singh 2009). The impact of lackluster economic growth, while not as dramatic as the Chinese famine of the 1960s, was felt beyond the general economy. India's economic woes were an important contributor to its failure to adequately produce weapons, which left the Indian armed forces under-equipped and hampered the country's foreign policy autonomy. Narang and Staniland (2012: 84) argue that although Nehru's policy was consistent with the arms versus allies tradeoff, the Indian state prioritized foreign policy autonomy to such a degree that it imperiled its own national security.

This policy came to a disastrous conclusion toward the end of Nehru's tenure as Prime Minister. Territorial disputes had been a thorny issue in the side of Sino-Indian relations since independence. Despite Nehru's preference for a diplomatic solution, a major war that erupted between the two countries in 1962 ended in India's humiliating defeat at the hands of the People's Liberation Army (PLA). While scholars have argued that bureaucratic meddling in the armed forces was an important factor in the Indian

military's defeat, it was abundantly clear that Indian woes were a direct result of its failure to prepare militarily (Cohen and Dasgupta 2010). In the buildup to the war, Nehru and his subordinates took a tough line with China but were unprepared to back it up with adequate military power (Garver 2012: 92). Not only was the border with China undermanned, it was logistically isolated, and the Indian army found itself with few modern weapons to take on the PLA.

In the years after 1962, the Indian state recognized the threats it faced and moved to address its shortcomings. According to Cohen and Dasgupta (2010: 8), the military's manpower was doubled and a functioning air force was created. The defense budget, which had suffered during the tenure of Nehru, was also dramatically increased. These efforts yielded results when India fought its second war with its neighbor Pakistan in 1965. This time, the country's military and civilian leadership was better prepared and forged a peace agreement with Pakistan when the latter realized that it could achieve little more than a stalemate. Despite this minor success, the threat only grew for India as China conducted its first nuclear test in 1964.

The strategic environment on India's doorstep grew ever more perilous as the 1960s ended. Although the United States (US) had provided limited assistance to India during and after the war with China, this assistance was withdrawn in response to India-Pakistan war of 1965. During this conflict, the United States imposed sanctions that disproportionately affected Pakistan. But the unreliability of American arms supplies was not lost on the Indians who, incidentally, continued to receive supplies from the Soviet Union (USSR) (Singh 1984: 709; Pardesi 2014: 232-233). The real change in India's foreign policy, however, came in 1970. A series of events that unfolded in relatively

quick succession would have major implications for Indian foreign policy over the next two decades.

US President Richard Nixon moved to take advantage of the recent Sino-Soviet rift to both separate the Chinese and the Soviets and obtain Chinese cooperation in Vietnam. Nixon, mindful of China's close relationship with Pakistan, used Pakistani dictator Yahya Khan as a channel for his diplomatic overtures prior to his visit in 1972. At the same time the USSR grew closer to India, in an effort to surround China, by signing the Treaty of Friendship and Cooperation with the South Asian nation. The new alignment was cemented by the events surrounding the India-Pakistan war of 1971, the third such war in less than twenty-five years of independence.

In the eyes of the Indian leadership, the self-interest of the Nixon administration was obvious. The brutal crackdown of the Pakistani military in East Pakistan (Bangladesh) had created a destabilizing refugee crisis and the prospect of a prolonged insurgency on India's doorstep. Indian pleas to stop this crackdown were ignored by the US and its NATO allies, and India was forced to take aggressive military action against Pakistani forces in Bangladesh with the goal of liberating the region from Pakistan's control. In an attempt to bully India into a premature ceasefire, Nixon sent the aircraft carrier USS *Enterprise* to the Bay of Bengal. The USSR responded by sending its own naval units to thwart this American intervention (Perkovich 1999: 165).

For India the 1971 war with Pakistan was replete with lessons. The war had solidified the USSR's role as a strategic guardian of India in an unfriendly neighborhood and proved to be a seminal moment in Indo-Soviet relations. The war also magnified the Indian establishment's concerns about the United States' India policy. In seven short

years, the US had gone from a less than reliable weapons supplier to a strong ally of its archrival, Pakistan. This realignment of India, in favor of the USSR and opposed to the US, would persist until the USSR collapsed. From the standpoint of India, the policy of nonalignment finally gave way to pragmatism but also resulted in its being cut off from major industrial countries such as Japan and West Germany that happened to be close allies of the US. The resulting isolation made any meaningful arms transfer relationship outside of the USSR all but impossible.

4.5 INDIAN ECONOMIC DEVELOPMENT & DEFENSE ACQUISITION: 1947-1971

The contextual factors that contributed to the evolution of the Indian national security policy are incomplete without a thorough understanding of the Indian defense sector during the Cold War period. As illustrated above, Nehru's economic and political worldview heavily influenced India's stance toward military preparedness and defense acquisition. In this view, foreign entanglements were seen as a threat to autonomy, and military preparedness was seen as diverting valuable resources away from the urgent task of poverty alleviation. Military expenditure as a percentage of GDP in India was approximately 2 percent in the years preceding the Sino-Indian war but rose to 4 percent in the years after 1962. Defense spending remained at those levels until the economic crisis of the 1970s. However, the story of India's defense acquisition policy is not simply one of resources but of strategy. Having adopted the broad tenets of an import substitution industrialization (ISI) model, India viewed domestic weapons production as a way to become self-reliant and save precious foreign currency.

Defense acquisition in India took three primary routes: direct imports, licensed production, and indigenous development (Baskaran 2004: 212). Given India's desire for self-reliance, the latter two became top priorities in the period between independence and 1962. However, due to a series of factors, these methods failed. Through the example of the Marut fighter aircraft, Gupta (1990) explains how Indian politicians set unrealistic expectations for a country with an unsophisticated industrial base. According to Gupta, the defense industry in India lacked design experience, particularly when it came to aircraft engines. Furthermore, although it acquired hard-to-produce foreign components, India was still unable to assemble aircraft in a cost-efficient manner, leading to the unenviable outcome in which domestically assembled Maruts were more expensive than directly imported ones.

While these failures caused short-term pain, they would have been a valuable investment if they had led to technology transfers and greater Indian manufacturing expertise. However, India also lacked a civilian industry that could partner with the defense sector. Gupta argues that the lack of a civil aviation industry made it impossible for the defense sector to share costs and attract capital. Similar problems could be found in other major weapons systems such as the main battle tank (MBT) that suffered because of the absence of a domestic automobile industry.

Nonetheless the defeat of 1962 was a genuine wakeup call, and the establishment did make important changes to its official policy in light of the events. The first five-year defense plan was published in 1964, and it called for increasing the strength of the army to 825,000 men, maintaining a 45-squadron air force with adequate air defense radar, improving communications and the road network in the border areas, phasing out aging

naval vessels, and building a better defense industrial base (Chari 1979; Bradstreet 2016). The number of ordnance factories increased from 22 in 1962 to 33 in 1980 and focused overwhelmingly on producing military supplies rather than fulfilling civilian requirements (Hoyt 2007: 33). Among the notable improvements of the time were the replacement of the Lee Enfield .303 bolt action rifle with the Ishapore semiautomatic rifle, the adoption of the modern Sterling machine gun, and the production of medium tanks at a new Avadi facility in Tamil Nadu (Smith 1994: 82). Nevertheless, scholars including Gupta (1990), Smith (1994), Mohanty (2004), and Mukherjee (2012) argue that the success in domestic production was limited to low technology items such as small arms, munitions, transport vehicles, and general military supplies.

The country also began importing greater quantities of weapons. For example, the Indian government was interested in acquiring a fighter with supersonic capability to combat the Chinese and the Pakistani bomber threat. It was unable to procure the US F-104, its preferred aircraft, but the USSR granted permission to start licensed production of the MiG-21 in India, thus beginning an important phase not only in its foreign policy but also its domestic arms production. Although the goal of an indigenously designed fighter aircraft remains elusive to this date, Baskaran (2004) notes that even the limited technology transfer in the agreement was immensely useful to DPSU Hindustan Aeronautics.

However, high technology remained out of reach because of the complacency the Soviet subsidy created in the home-grown defense sector. Conventional weapons supplied by the USSR were transferred at immensely favorable terms. Several deals were characterized by long loan repayment periods with relatively modest interest rates. Other

deals allowed payment in Indian currency or in the form of commodities (Gupta 1990; Baskaran 2004). This cozy relationship was further cemented in 1970 with the Treaty of Friendship and Cooperation.

Finally, Indian economic policy also played an important role in domestic defense production. As indicated earlier in this chapter, the Fabian socialism of Nehru had a disproportionate influence on the country's economy and, in particular, on the industrial sector. Some of the key features of Nehru's import substituting industrialization (ISI) policies were (1) prioritizing heavy industry to produce capital goods and (2) giving the public sector a leading role in investment decisions. In a comprehensive review of India's industrial policy during the 1950s, 1960s, and 1970s, Ahluwalia (1991) documented the adverse effects of this policy. Among the most prominent negative externalities of the "command style" economic policymaking were (1) the shielding of private and public companies from both domestic and foreign competition, leaving them little incentive to innovate or upgrade, (2) discretionary licensing requirements for private companies that micromanaged their decision making, which dampened entrepreneurship, and (3) rent seeking by bureaucrats in charge of government control policies. The effects of economic mismanagement were further worsened by the four major conflicts that India fought in the quarter century after independence, by major foreign aid shocks in 1965 and in 1971, and by the worldwide oil shock of 1973.

There are two important takeaways from a survey of the Indian economy under Nehru. First, although the government prioritized the public sector, its leadership was unable to discipline the bureaucrats as was the case in East Asian economies with export-led development models (Stubbs 1999). Second, the government's discouragement of

competition and entrepreneurship made it impossible for the defense sector to share technology, costs, and human capital with partners in the private sector. Under these circumstances it is unsurprising that the Indian defense sector was incapable of meeting the needs of the armed forces, and the lackluster civilian economy provided no help.

4.6 INDIAN FOREIGN POLICY: 1971-1990

In contrast to the humiliation of 1962 and the stalemate of 1965, India's victory in 1971 was nothing short of spectacular. India dislodged the Pakistani military from Bangladesh in such a short time that it did not give China or the broader international community an opportunity to react.²⁴ Nonetheless, Indira Gandhi's government remained acutely aware of the security threats it continued to face. India had narrowly avoided a two-front war by initiating its offensive in the winter season, making it unlikely that the Chinese could come to Pakistan's aid. Furthermore, while the Soviet guarantee of security assistance was real, the USSR was still an ally situated thousands of miles away.

India's most pressing concern was the nuclear capability of China. Ganguly (2003) argues that India's public posture on nuclear weapons proliferation prior to 1971 was guided primarily by moral principles. India's historical legacy of nonviolence created strong moral restrictions, and thus India focused on diplomatic efforts aimed at securing a promise of gradual nuclear disarmament by the major powers. However, the signing of the Non-Proliferation Treaty (NPT) without these promises made it clear that its strategy of persuasion and moral leadership had fallen flat. Moreover, becoming a signatory would leave India's own nuclear ambitions susceptible to international sanctions.

²⁴ The USSR met its alliance obligations to India by vetoing a UNSC ceasefire resolution and dispatching a naval contingent to the Bay of Bengal to prevent American intervention.

In essence, India's commitment to nonviolence gave way to pragmatism; the first Indian nuclear test was conducted in 1974. The reaction by the US and its allies was mixed. While the US Congress moved to sanction India by denying foreign aid, the provisions of the bill were not upheld by the Nixon administration. In fact, US Secretary of State Henry Kissinger flew to India in 1974 to express hope that the US and India could have a mature relationship in the future. Jimmy Carter's administration took the lead in creating the London Suppliers Group, later known as the Nuclear Suppliers Group (NSG), which would coordinate the activities of its members to restrict the flow of sensitive technology to countries in violation of the NPT.²⁵

In the latter half of the 1970s, a series of events led to intense political upheaval within India. Indira Gandhi's government temporarily suspended democracy, and the resulting backlash brought a non-Congress government to power for the first time. From the standpoint of foreign policy, though, India's trajectory changed little. The US continued to stand in opposition to Indian positions on some issues and cooperate on others. At the same time though the USSR maintained steady cooperation resulting in continued Soviet provision of 80 percent of India's arms imports. The Indo-Soviet strategic alignment reinforced itself through the Soviet invasion of Afghanistan. Indira Gandhi's government backed the USSR diplomatically while the US began supporting Pakistan to undermine the Soviet occupation. The flow of weapons, the influx of foreign fighters, and American support of Pakistan greatly alarmed India. The Carter and Reagan administrations overlooked Pakistan's nuclear program by relaxing sanctions in return for the latter's help in Afghanistan (Cohen 2001: 170). One of the key points from this

²⁵ Canada on the other hand expressed strong condemnation because it suspected that technology exported to India from Canada's civilian nuclear reactor had been diverted for military purposes.

discussion of foreign policy in the 1970s and 1980s is that India's foreign policy stance was not intensely ideological either for or against a country as it was in the early years of the republic. From the standpoint of future relationships this seeming 'neutrality' left the door open for future closeness with many countries. In contrast the foreign policy of the PRC was sharply ideological for a significant period of time, and it made repairing relationships in the future that much more difficult.

4.7 INDIAN DEFENSE ACQUISITION: 1971-1990

Indian indigenous weapons production did grow modestly in the post-1971 period, but the lack of technological success in major weapons platform continued to plague the country. Ambitious projects such as the Tejas Light Combat Aircraft (LCA) were launched in the 1980s but after more than three decades have yet to yield any significant results despite an increased emphasis on technology transfer and local production. For example, foreign defense deals for the first time had explicit requirements that technology be transferred to local firms and suppliers (Matthews 1989: 411). So how do we understand these failures in defense modernization? In the years before 1962, the problems of modernization in the defense industry could be attributed to the general neglect of defense production and problematic industrial policies. While the latter continues to plague India to this day, the Nehruvian neglect had given way in light of new strategic realities. However, a new willingness to devote resources to defense could not compensate for the technological challenges, political neglect, or organizational dysfunction. In particular, the concept of creating a military industrial complex where government entities interact with the civilian sector in a mutually beneficial partnership

remained an elusive goal. Matthews argues that the relationship between the civilian defense sector and government defense production is unidirectional. A relatively small amount of defense equipment was procured from the civilian firms.²⁶ This development was partly a function of the government occupying the commanding heights of the civilian economy and partly a function of a 1956 mandate that defense equipment be manufactured in public sector units only. These policies can be attributed to a political philosophy and its believers who saw a vibrant military industrial complex as leading to the creation of vested interests that would ultimately push India into aggressive foreign and military policies (Matthews 1989: 417). Furthermore, the federal nature of India's polity demanded that the employment and stimulus effects of defense production be spread out to prevent regional imbalances.

On the organizational front, bureaucratic dysfunction continued to hobble India. An analysis by Bitzinger (2014: 122) provides a succinct review of the organization structure of indigenous defense production in India at the time. India had 39 ordnance factories (OF), eight defense public sector undertakings (DPSU) and several research and development laboratories (R&D). Overseeing this process was the Defense Research Development Organization (DRDO), which serves as the principal scientific advisor to the government and maintains a veto power over decisions to acquire weapons systems requested by the armed forces. The same bureaucratic structures and attitudes that shaped the general economy of India were duplicated in defense industrial sector. In particular, the segregation of development and manufacturing plagued the domestic production of weapons systems. The DRDO produced unrealistic estimates of its technical abilities that

²⁶ Matthews (1989: 417) finds that only 3 percent of current military expenditure can trace its origins to suppliers in the private sector in 1986.

could not be met by the DPSU or the OFs. To further add to this dysfunction, the DRDO rarely worked closely with the end users in the development phase, which led to incomplete understanding of the needs of the armed forces. Furthermore, Behera (2018: 189) argues that the lack of coordination between the armed forces and the DRDO can be traced to independence, when the R&D functions of weapons were taken away from the armed forces and housed in civilian entities. The resulting “turf war” has led to the military imposing requirements too stringent for the DRDO to meet. Additionally, several other factors contributed to the failure of domestic defense production in India (Behera 2018). For example, the government entities involved in production were barred from exporting, which limited their exposure to competition and hence innovation. This also led to the Public Sector Units (PSU) forgoing a critical source of financial viability. Another factor was the redundant labor force employed by the PSUs, which led to low productivity. Similarly, the government continued in its policy of maintaining a monopoly for PSUs, which shielded them from even domestic competitors and prevented public-private collaboration.

On the political front many have argued that India did not have a coherent vision for national security but rather lurched from one ad hoc strategy to another leading to the failure of major weapons programs. For example, Singh (1998: 69) argued that ministry of defense headed by the defense minister creates a five-year plan for defense expenditure based on political mandates, while the military creates a 15-year plan. Similarly, the ministry of external affairs (MEA) does not participate in the threat assessment process. Furthermore, there was little legislative oversight of the defense

planning process because of its low electoral value, which meant even high value projects were rarely the subject of vigorous parliamentary debate.

In comparison to these “failures,” the achievement of the Indian ballistic missile program can certainly be viewed as a success story (Kampani 2003: 48). This story is important because it sheds light on a potential formula for success. India began its journey to add credibility to its nuclear deterrent by launching the Integrated Guided Missile Development Program (IGMDP) in 1983. The goal of this program was to create a family of missiles including anti-tank, surface to air (SAM), short range ballistic missiles (SRBM), and medium range ballistic missiles (MRBM). While the program began at relatively the same time as some other prominent projects such as the Arjun MBT and the Tejas LCA, it has proven itself a model for successful development of indigenous defense technology for several reasons. First and foremost, the IGMDP benefited greatly from India’s mostly civilian space program, which had begun in the early 1960s and had been institutionalized by its own independent organization known as the Indian Space Research Organization (ISRO). The creation and the funding of ISRO was strongly aligned with Nehru’s worldview of using science and technology to enhance Indian economic development. The first series of rockets in the 1970s were used only for lower orbit missions, but in the 1980s more powerful launch vehicles were developed and tested for higher altitudes. These operations provided invaluable experience not just for the scientists but also for the launch platforms, both of which were incorporated into the IGMDP (Ganguly 1999: 164; Mistry 2001; Speier 2007: 193-194). The second reason for IGMDP success was the attention given to the program compared to other weapon systems. Even though importing modern fighters or submarines was an expensive

proposition for India, the option was always available. However, there was little or no foreign cooperation in the sphere of ballistic missiles, making indigenous development India's only viable route to long range nuclear deterrence (Gupta 1990: 856; Hoyt 2007: 48). Accepting this reality, all the stakeholders in India were willing to lend their technological and political support to the IGMDP. The third reason is that ballistic missiles are an easier technological challenge than a modern jet fighter (Gupta 1990: 857; Hoyt 2007: 48).

To be clear, India did make some modest progress through licensed production in the conventional weapons arena. It started to produce Leander-class frigates, the Vijayanta medium tank, and upgraded the Marut fighter to Mach 1.3. But by and large its needs were met through imports from the USSR, which provided generous financing, allowed for barter, and was more willing than the US to part with sensitive technology. More importantly, contrary to the popular notion that India was completely dependent on the Soviets for weapons, it did manage to seal a few high-profile deals with countries outside the Soviet bloc (Singh 1984). India completed a deal to acquire the Jaguar aircraft from the UK in 1978, convinced France to sell 40 Mirage-2000 aircraft in 1979, and agreed to purchase two Type-1500 submarines from West Germany in 1981. At one point in time India even considered the Saab 37 Viggen made by Sweden. This diversity of willing suppliers demonstrated that despite India's alignment with the USSR, major arms suppliers did not consider arming India a dangerous proposition, and it is a testament to India's foreign policy.

Reflecting on the period between the 1970s and the end of the Cold War, several observations are in order. First, although India made some progress on improving defense

acquisition, it undertook no meaningful reforms at the organizational or political level to facilitate a better defense acquisition process. Second, although Indira Gandhi initiated reforms when she returned to power in 1980, and her son and successor Rajiv Gandhi continued them, there were no significant changes in the quantity or quality of weapons produced (Kohli 2006). Third, in a few select projects, India was able to be completely self-reliant. Fourth, although India was heavily dependent on the USSR, it continued engagement with Western European countries on issues of arms trade despite being shunned by the US.

4.8 INDIA'S POST-COLD WAR FOREIGN POLICY: 1991-PRESENT

The shock and the effect of the abrupt end of the Cold War was felt profoundly in India. In the USSR, India not only lost a reliable and cost-efficient supplier of defense equipment but also a patron and a security guarantor (Kohli 2006). Furthermore, a confluence of factors in the early 1990s led to a sea change in Indian economic thinking. A balance of payments crisis in 1991 made the command style economy no longer tenable. In response to the crisis, the government enacted a broad and deep reform agenda that put India on a path to sustainable growth over the next two decades.²⁷ Two important

²⁷ Under the political leadership of Prime Minister Narsimhao Rao and the economic stewardship of Dr. Manmohan Singh, India cut the size of the government sector, suspended agricultural subsidies, reduced trade tariffs, relaxed regulatory controls, and allowed more fluctuation in the currency (Ganguly 2003: 43; Kapur 2012: 261). Some scholars argue that pro-growth policies and the relaxation of government controls over the economy began nearly a decade before the reforms of 1991 (Kohli 2006). But Panagariya (2005: 188) argues that while reforms had been enacted in the 1980s, they were halfhearted in comparison to the post-1991 reforms. For example, in the 1980s exceptions began to be granted for the importation of a few critical goods in a system where nearly all items had an import prohibition, whereas in the post-1991 era exceptions had to be made for certain items to remain on the prohibition list.

developments in the 1990s would test India's ability to survive in the international system without a powerful ally.

First, after several years of political instability emanating from fractious parliamentary coalitions, a relatively stable national government ascended to power, headed by India's center right Bharatiya Janata Party (BJP). The BJP government realized that the extension of the Nonproliferation Treaty (NPT) along with the passing of the Comprehensive Test Ban Treaty (CTBT) would in effect permanently criminalize the development of nuclear weapons for all countries outside the established nuclear powers (Ganguly 1999: 168). For India, this clearly represented the failure of its longstanding global non-proliferation efforts and signaled the need for a more pragmatic foreign policy stance. The US-led international efforts were further worrying because US engagement with China required that the US ignore the Chinese proliferation of missile technology to India's archrival Pakistan. At the same time, the US was working to build a new Anti-Ballistic Missile (ABM) system. Ultimately these events led to the detonation of five nuclear devices in May 1998. India's action prompted swift condemnation from the international community, and the US imposed economic sanctions, but the Indians refused to back down.

Second, a major crisis in 1999 on the Indo-Pakistan border in the disputed region of Kashmir had the potential to set off a major war. Not only did India prevail in the Kargil War, but it was able to coordinate its military strategy and diplomacy in a way that prevented Pakistan from bringing third-party mediators into the conflict.

These events demonstrated that India was capable of shedding its idealistic worldview in favor of more pragmatic and independent policies in its own national

interests despite the demise of its long-term ally. Yet this represented only the first phase of India's post-Cold War history. In the subsequent phase, India was faced with the challenge of translating newfound economic growth into hard power that would propel it into the club of regional or even world powers. To achieve this status, India needed to become dominant militarily in its immediate sphere of influence, which includes South Asia and the Indian Ocean Region (IOR). In the next section, I discuss India's attempts to modernize its military by reforming its defense sector and taking advantage of an economy that was on a much stronger footing.

4.9 INDIA'S POST-COLD WAR DEFENSE ACQUISITION

(a) Domestic Production

India's defense acquisition policy has undergone some important changes since the end of the Cold War; both on the domestic front and in the international market. On the domestic front, the unshackling of the Indian economy led to a much stronger private sector and greater industrial capacity. India was able to expand its military budget as it no longer faced an acute fiscal crisis. The economic reforms provided the country with the wherewithal to absorb the shock of economic sanctions following the nuclear tests of 1998—something it was unable to do when it faced a similar international backlash in 1974.

Furthermore, the reign of the center right coalition government led by the BJP between 1998 and 2004 brought important defense sector reforms. In 2001, reform of the institutional structure for defense procurement made the Defense Acquisition Council the apex body, tasked with overseeing acquisition, indigenous production, and R&D. Other

reforms included close consultation with production facilities and greater input of the armed forces as end users. On the investment side, the government opened the Indian defense sector to Foreign Direct Investment (FDI) of up to 26% in 2001 and up to 49% in 2014 (Thakker 2018). Yet very few firms and very little investment flowed into the country's defense sector. By 2009 only 9% of the capital acquisition of the country was handled by the private defense sector, while 21% was handled by the DPSUs, which meant that foreign suppliers accounted for the remaining 70% (Grevatt 2015). For even a passive observer of the Indian defense sector, this is hardly a surprise. Despite the efforts of successive governments, several high-profile yet consequential projects continue to be mired in cost overruns, failed quality control, and even corruption scandals. Prominent among them are the Arjun MBT project launched originally in 1974, the Tejas Light Combat Aircraft (LCA) that began its journey of development in 1980 as a future replacement for the MiG-21, and the Dhanush artillery system. To put the overall goals of indigenous production into perspective, the Indian government had set a target in 1995 of 70% domestic sourcing by 2005, which had to be eventually shifted to 2020 in the year 2007 (Conley 2001: 65-66). According to Cohen and Dasgupta (2010: 32-34), despite India's organizational reforms, one of the main culprits for failures of indigenous development remains the Defense Research and Development Organization (DRDO). The organization has history of overpromising and under-delivering, and despite this poor track record it remains in a privileged position in the defense acquisition process. Furthermore, India's history of import substitution means that politicians and bureaucrats always go through the lengthy process of trying to produce at home before they end up realizing that their needs can only be met by overseas suppliers. Cohen and Dasgupta

(2010) argue that the DRDO is emblematic of a modernization program that does not have sufficient political capital behind it and lacks a long-term vision.

(b) Foreign Acquisitions

The preceding sections demonstrate that after more than seventy years of independence, India continues to fall woefully short of achieving its objective of self-sufficiency in defense production. How then can it achieve its goal of military modernization while simultaneously preventing overreliance on foreign suppliers?

As mentioned earlier in this chapter, only a handful of countries at the top end of the ladder of defense production are capable of producing and supplying modern equipment. During the Cold War, these major suppliers fell into two groups: the first one led by the US and composed of its NATO and East Asian allies, and the second one led by the USSR and composed of its Soviet satellite states. Despite its desire to remain free from the influence of either of these camps, India moved squarely into the Soviet corner after a series of geopolitical events and became dependent on the USSR for a steady supply of modern defense systems, a dependence that can best be characterized as overreliance. I argue that the steps India took in foreign affairs provided a way forward to mitigate the impact of this overreliance. This was done by leveraging its bilateral relationships with the likes of the US, France, and Israel and thereby diversifying its portfolio of defense suppliers.

(i) United States

India's renewed engagement with the US is the most consequential of all of its foreign policy moves in the 21st century. Following the nuclear tests of 1998, India had been the subject of international condemnation. However, India's resolve following the imposition of sanctions, its conduct during the Kargil War, and its nuclear doctrine of "No First Use" made it appear to be a responsible power.²⁸ Moreover, India's struggle against what it called Pakistan-backed Islamic extremists resonated with the world community and especially with the US following the attacks of 9/11. India became a partner in the Global War on Terror (GWOT), began conducting joint exercises with the US, and just seven years after the imposition of nonproliferation sanctions signed a landmark civilian nuclear agreement with the US. The Indian government decided to pursue this agreement over the objections of its foreign policy bureaucracy that harbored Cold War era distrust of the US and over the objections of its coalition partners, which nearly cost Prime Minister Manmohan Singh his parliamentary majority. Additionally, India's interest in preventing the return of instability to Afghanistan has led it to deploy financial and diplomatic resources in support of the US mission (Kronstadt et al 2011: 18).

A key byproduct of the normalization of the Indo-US relationship has been the rapid expansion of defense exports from the US to India. Following the civilian nuclear deal, the US Department of Commerce removed most Indian defense organizations from

²⁸ India refused to cross the Line of Control (LOC) in the Kargil War, an action that could have arguably spared its armed forces from the high casualty rate for fear of escalating the conflict and being labeled as irresponsible (Tellis, Fair, and Medby 2001: 11). Paul and Shankar (2007: 115) argue that India's adoption of the "No First Use" policy was an important part of the Indo-US civilian nuclear deal being cleared by the US government.

the Entity List and in 2010-2011 approved 99% of dual use technology license requests (Kronstadt and Pinto 2012: 28). In the years since the signing of the landmark agreement many other major defense contracts have been won by American firms and cleared by the US government. For example, the US agreed to sell ten Boeing C-17 Globemaster aircrafts valued at \$ 4.1 billion in 2010, eight Boeing P-8 aircrafts valued at \$ 2.1 billion in 2011 to India, and six Apache AH-64E attack helicopters valued at \$ 930 million in 2018 (Prasad 2011; The Economic Times 2018). Two major American defense contractors also participated in the Medium Multi Role Combat Aircraft (MMRCA) tender, which was aimed at replacing India's aging MiG-21 fleet. The MMRCA is arguably one of India's most consequential defense acquisitions in a generation and could eventually be worth more than \$10 billion. The tender generated a furious lobbying effort from the US government and the failure to secure the contract is said to have ultimately cost the US ambassador to India, Timothy Roemer, his job.

(ii) France

Even before the recent blossoming of India's relationship with the US, there was another country that had longstanding ties in the arena of defense cooperation. As early as the 1970s, France had quietly placed itself as the second-largest overseas supplier to India. Franco-Indian defense cooperation stretches back to the 1960s with the licensed production of Alouette II, and continued engagement led to the sale of forty Mirage-2000 aircraft in 1979, which was the largest deal between the two countries at the time (Smith 1994: 82). France was also one of the first to begin the process of normalization with India following the 1998 sanctions by conducting naval exercises with the Indian Navy in

the same year. Subsequently, France has managed to complete several deals with India including the sale of six Scorpene class submarines valued at \$ 3 billion and was also one of the first countries that agreed to build nuclear reactors in India after Indo-US nuclear deal provided the necessary waivers (Saint-Mézard 2015: 9). However, the most important step in the Franco-Indian defense relationship came with the awarding of the MMRCA contract to France's Dassault Aviation for its Rafaele aircraft (Cody 2012). The deal was seen in many circles as a way to continue strengthening just one of many historical relationships India has continued to nurture rather than either remaining over-reliant on the Russians or becoming too cozy too quickly with an "unreliable" US (Moss 2011).²⁹ I argue that the Rafaele decision is not simply a one-off decision. In fact, it is rooted in a common thread between India and France's foreign policy, which is their shared distrust of US military dominance, the resulting unilateralism, and both countries' deep desire for autonomy (The New York Times 1999). This common thread became the basis for a bilateral relationship that India pursued despite being in the opposite camp during the Cold War, and it is this pursuit that has paid and will continue to pay dividends in the field of foreign defense acquisition.

(iii) Israel

Having discussed a longstanding defense relationship, I now turn my focus to explore one of India's newer ones. India's cooperation with Israel is a fairly recent phenomenon with full diplomatic relations being established only in 1992. From Israel's independence through the end of the Cold War, India maintained a limited relationship on

²⁹ It is also noteworthy that although Russia has deep roots in the Indian defense sector, Russia's MiG-35 aircraft did not make it to the second round of the MMRCA tender (Pant 2013: 8).

account of its own minority Muslim population, its closeness with Nasser's Egypt that was a member of the nonaligned bloc, Israel's alliance with the US, the presence of a large diaspora of Indian migrant workers in the oil producing countries of West Asia, and most importantly India's energy dependence on the Gulf Arab states (Kumaraswamy 2002; Malone 2011). But the pragmatic turn in Indian foreign policy since the early 1990s has reversed many of these stances, and the result has been a burgeoning arms and technology trade. In fact, by 2006 India was the recipient of nearly one fourth of all Israeli arms exports valued at \$ 1 billion, which meant that at the time Israel had become India's second-largest arms supplier, displacing France (Atarodi et al 2010: 52). Prominent among them have been the Arrow II theatre missile defense system and Phalcon AWACS system (Malone 2011: 191). With respect to security issues, one key pillar of the relationship has been the common threat of terrorism from radical Islamic groups.

(iv) Russia

Finally, any discussion about India's foreign defense suppliers would be incomplete without exploring its relationship with Russia in the post-Cold War era because Russia is still responsible for more than 60% of all Indian arms imports. Additionally, even if India no longer makes new purchases, it will still dominate the Indian defense sector simply through the supply of spare parts, maintenance, and upgrades to the existing portfolio of Indian weapon systems of Russian origin. This will ensure that Russia will remain India's most important supplier for many years to come. However, unlike the USSR, a post-Cold War India no longer views the Russians as

indispensable. Having acquired a credible nuclear deterrence and cultivating a stronger economy, India is no longer in need of a security guarantor or a prominent foreign aid donor. With respect to arms trade, recent issues that have cooled the Indo-Russian relationship include the supply of Russian weapons to India's strategic rival China, the delays in delivering key systems such as the refurbished aircraft carrier Admiral Gorshkov at price tags that ended up being much higher than negotiated, lower levels of quality control in spare parts, and the lack of technological sophistication in new systems (Pant 2013: 7-9). More importantly, the recent expansion in its bilateral relationships has translated into a more diverse set of willing defense suppliers that can potentially address these concerns India has. This has transformed the Indo-Russian defense relationship into one that is no longer one-sided.

4.10 ANALYSIS OF INDIAN CASE

Viewed individually, these relationships can be seen as the byproduct of specific circumstances particular to the pair of countries. However, I argue that the recent expansion of defense acquisition partnerships by India constitutes a broader trend. More importantly, it demonstrates that while India has failed in its goal of self-sufficiency with respect to defense production, it has compensated by using its foreign policy to court a diverse set of suppliers. In the process India has set itself on a path to military modernization while attempting to mitigate the problem of overreliance.

4.11 ALTERNATIVE EXPLANATIONS

There are obviously some plausible alternative explanations to India's defense acquisition strategy that go beyond its foreign policy. The first is the economic argument. India's economic ties with the rest of world have expanded dramatically since it liberalized its economy, and this economic interdependence is the main driver of expanding defense procurement relations. However, I disagree with this argument because I believe that geostrategic considerations are more important for the two countries involved than simple economics. Historically, defense trade has not been possible between China and any major Western suppliers because of the geopolitical risk inherent in arming China, his despite the fact that China has recently been among the largest bilateral trading partner of many suppliers.

The second explanation is the cultural and ideological ties between India and its suppliers. Throughout its history as an independent country, India has by and large maintained its status as a pluralistic society characterized by a free press, multiparty democracy, and an entrepreneurial middle class. These institutions are an essential commonality that is an asset in the relationship between India and Western arms suppliers (Malone 2011: 232). However, this argument falls short in explaining some of the most prominent arms trade relationships in the world such as those between India and the USSR, the US and Saudi Arabia, and Pakistan and the US.

CHAPTER 5

DEFENSE ACQUISITION AND ARMS TRANSFER

DEPENDENCE: THE CHINESE EXPERIENCE

5.1 THE CASE OF CHINA: INTRODUCTION

The previous chapter of the dissertation illuminated the complexity of the defense acquisition process by demonstrating that the process is a function of national ideology, foreign policy, and domestic and bureaucratic politics. This was done by utilizing the example of India which has struggled to become a self-sufficient producer of defense equipment and has instead used external suppliers cultivated through its foreign policy to bridge the gap between its supply and demand. In doing so it has become dependent on arms transfer but has mitigated its detrimental effects by diversifying its portfolio of suppliers. In contrast, in this chapter I use the case of the China to show how a country can acquire the desired equipment by promoting a homegrown defense industry in a global environment where major suppliers are reluctant to arm a potential adversary. I employ a strategy similar to the one employed in the previous chapter. I follow the changes in China's domestic defense industry while simultaneously monitoring China's evolving relationship with its external suppliers. I begin my analysis around the time that the Chinese Communist Party (CCP) came to power and end it in the second decade of the 21st century.

5.2 CHINESE FOREIGN POLICY: 1949-1972

A casual look at modern Chinese history under the leadership of its founding father Mao Zedong reveals a period that can only charitably be described as tumultuous. The charismatic yet capricious leader's ideology left an indelible mark on all aspects of Chinese society and foreign affairs was no different. The country's foreign policy, driven by a combination of international and domestic factors, saw more than one shift. But by and large, during Mao's tenure, China was characterized by isolation.

After prevailing in a hard-fought civil war of the late 1940s, the Chinese Communist Party under the leadership of Mao brought most of China under their control. In one of their first foreign policy decisions, China tilted decidedly towards the Soviet Union (USSR). The CCP made this decision for four reasons to (1) consolidate their shaky regime, (2) defend China against the American strategy of containment, (3) gain from USSR's economic assistance, and (4) safeguard China from the USSR itself (Nathan and Scobell 2015: 68-71). But despite its ideological affinity to the USSR, beginning with the late 1950s, China started to move away from its larger communist partner. This shift in Chinese foreign relations was driven in large part by the regime change in Moscow. A series of key developments created rifts between the two communist countries (Nathan and Scobell 2015: 72-75).³⁰ First, Khrushchev's denunciation of Stalin's cult of personality and the terror filled purges threatened Mao's grip on China because the Chinese regime was by all accounts a personalist regime. Second, the USSR started to have misgivings about sharing sensitive nuclear technology

³⁰ In addition to these security related developments there were ideological disagreements between the USSR and China in part because of the Soviet crackdown in Hungary and Czechoslovakia (Chen 2001).

with what was perceived to be a conflict provoking regime.³¹ By pulling the plug on Sino-Soviet nuclear cooperation, Khrushchev probably delayed China's ability to become a nuclear power by nearly a decade. Additionally, Mao was deeply hostile to the USSR gaining access to its territory to project military power because it saw this move as another instance of a foreign power violating China's sovereignty; a scenario that brought back memories of British and Japanese occupation. Finally, Soviet economic assistance failed to provide the kind of development that Mao had hoped for. These differences continued to fuel mistrust between the two sides throughout the 1960s and ultimately led to outright hostility in the form of a border war in 1969.

While the Sino-Soviet relationship was slowly falling apart it is important to remember that China became ever more isolated from the remainder of the industrialized world (Harding 1995: 396; Lanteigne 2016: 8).³² In Asia, China remained hostile to American military presence in Japan, the Korean peninsula, and Indochina. With respect to other major Western countries such as West Germany, Japan, and Canada, China continued to have no diplomatic contacts (Ross 1995: 442).³³ This isolationist stance of China was not surprising given Mao's ideology and worldview, which was a key driver of foreign policy at the time. Mao advocated that China must find an enemy in the international arena and struggle against it much like the revolutionary struggles of domestic affairs (Gilboy and Heginbotham 2012: 46). Additionally, by 1970 China

³¹ Mao's military adventure in the form of the Taiwan Straits crisis of 1958 greatly alarmed the USSR.

³² During the Cultural Revolution many countries had severed diplomatic relations with the PRC as a large number of ambassadors were recalled and many of the staff at the Chinese foreign ministry joined the revolution (Jan 1977: 519).

³³ Denmark, Norway, Finland, and Sweden were among the few countries that did afford diplomatic recognition to China.

viewed itself as being surrounded as a Treaty of Friendship and Cooperation was signed between the USSR and India, both of which had recently fought a war with China.

It was only during the early 1970s that Mao began to moderate his foreign policy and decided to safeguard his regime from the Soviet threat by pursuing better relations with the US. However, for all intents and purposes China was a closed country with few economic, social, or political links to the outside world. In the years after Mao's death this isolationist and often adversarial history of foreign relations made it difficult for countries to cooperate strategically with China despite major changes in its economic philosophy and worldview. More importantly, China was unable to build lasting relationships with most of the major arms suppliers with the exception of the USSR leaving it with little choice but to focus its efforts to create a capable defense sector at home.

5.3 CHINESE ECONOMIC DEVELOPMENT AND DEFENSE ACQUISITION:

1949-1972

In many ways the tumult and the upheaval that marked the period before 1949 in China had a deep impact on the ruling elite of China. The participation of the Communist Party of China (CCP) in the anti-Japanese resistance and their subsequent victory over the nationalist KMT in the Chinese civil war left an almost permanent mark on the military philosophy of the People's Liberation Army (PLA). The success of this strategy cannot be discounted in its impact on the strategic mindset of the Chinese leadership. Mao's strategy had successfully overcome two superior adversaries that were better equipped than the PLA. Central to this strategy was the doctrine of 'People's war'. Mao

believed that human beings and not weapons were the decisive factor in war and that a technologically superior enemy could be defeated through a protracted battle of attrition (Powell 1968: 239). This belief was put to test in the Korean War with disastrous consequences for the PLA.³⁴ Yet so strong was the influence of Mao's thoughts on the China that even after his death the leadership tread carefully in casting doubt on what was clearly a misguided military doctrine so as not to threaten Mao's broader ideological legacy. This was evident in the statements made in the state media and by military leaders in the early post-Mao period (Joffe 1987: 555-557).

But the effects of the 'People's War' doctrine were not limited to battlefield decisions and outcomes because military doctrine has a more systemic effect. Military doctrine provides the organizational structure, weapons procurement policy, and the internal practices that the military is supposed to adopt to fight a war. Therefore, it is not surprising that Mao's doctrine affected defense production in a way that forced technology to take a backseat at least until the end of the Korean War.

Adding to the folly of the 'People's War' doctrine was a misguided emphasis on economic self-reliance that was attempted through a centrally planned economy. More than a decade of conflict in China, first through the Japanese occupation and subsequently through the civil war, had destroyed the majority of capital and human resources available. Beijing's state led model of development, pursued through import substitution industrialization, cut China off from foreign investment, aid, and technological knowhow. At its core, the problem with ISI is the inefficient allocation of resources, capital and labor, to enterprises or sectors selected by bureaucrats who are

³⁴ Although the combined forces of North Korea (DPRK), China, and the USSR were able to force a ceasefire their casualties were enormous.

hampered by their informational disadvantages in comparison to market participants (Krueger 1990). Furthermore, the shielding of these enterprises from competition, both foreign and domestic, made it unlikely that managers, workers, or stakeholders would upgrade technology, innovate, or increase efficiency. In addition to these problems, the degree of actual control exercised by the CCP over the economy was far from complete (Granwick 1990). The industrial portion of the Chinese economy like many others was driven by the pursuit of quantitative targets of physical output volume and total output value with little or no concern for efficiency or profitability. Moreover, the anti-capitalist ideology of the CCP all but eliminated the private sector through collectivization of the agricultural sector and a prohibition on private enterprise. The CCP also interfered in market forces by favoring heavy industries rather than small and medium enterprises and attempted to forcibly reduce regional disparity through regional self-sufficiency (Démurger et al 2002).

The Chinese defense sector, just like every other part of the economy, was a victim of the misguided ideology that prioritized public ownership and relied on central planning. In a comprehensive review of the Chinese defense industrial base Cheung (2013: 40) found that (1) rigid compartmentalization of different components of weapons systems, (2) weakness of institutions, (3) absence of incentives that encouraged competition and entrepreneurship, and (4) stifling control of the state made it nearly impossible for indigenous production to fulfill the goal of self-sufficiency or self-reliance. Cheung also adds that even the limited technological progress achieved could be attributed to Soviet assistance and a very large defense burden.

Despite these challenges, the CCP did attempt to produce a wide variety of weapons systems indigenously including ballistic missiles, aircraft, and submarines. However, they were only able to make modest gains in assembling aircraft and naval vessels with the help of imported components. For example, between 1956 and 1960, China had produced 2000 J-4s, a variant of the MiG-17. Similarly, the Shanghai Shipbuilding Institute, established in 1956, began to produce indigenous naval crafts by 1959. But by and large China was unsuccessful in its attempts to become a truly self-reliant military power.

The contemporary literature on defense economics explains China's failure. Scholars of this literature argue that policy makers in developing countries often take the view that a strong and sophisticated defense industry is likely to benefit the general economy through a spillover in productivity and transfers of technology. But on the contrary it is the know-how of the civilian sector that influences the defense sector (Ball 1988; Dunne 1995). Brauer (1991) further provides evidence for this argument by empirically examining the defense industries of 24 developing countries. The reason is relatively straightforward and intuitive. While indigenous production can reach levels sufficient to meet domestic demand in low technology items, there exists a mismatch between the aspirations of policy makers for advanced conventional production and the level of economic development at their disposal. Brauer terms this as "overreach" in the ladder of production, as shown in the figure 5.1

Figure 5.1: Ladder of Production (Krause 1992)

<p>↑</p> <p>Self-sufficiency in Defense Production</p> <p>↑</p>	Completely independent R&D and production.
	Independent R&D and production of advanced arms with foreign components.
	Independent R&D and production of less sophisticated weapons.
	Limited independent production of less sophisticated weapons; limited production of more advanced weapons.
	Limited R&D improvements to local license-produced arms.
	Co-production or complete licensed production of less sophisticated weapons.
	Final assembly of less sophisticated weapons; some local component production.
	Local production of components or raw materials.
	Assembly of imported components, simple licensed production.
	Overhaul, refurbishment and rudimentary modification capabilities.
	Capability of performing simple maintenance.

It is no secret that China’s policy makers aspired to emulate the Soviet experience of development in the sphere of defense production. But despite modeling their bureaucracy, economy, and defense sector on the Soviet system, China was unable to replicate the success of the USSR for several reasons (Medeiros et al. 2005). First and foremost, China had fewer material resources available and spent fewer resources on defense expenditure since it did not face the same threat levels. Second, human capital available for production was scarce. For example, the percentage of the Chinese population with a post-secondary education was less than 1%. Third, the USSR experienced few of the internal upheavals that China did. These factors put together are the main reasons why China was unable to emulate the success of the USSR.

These structural problems were only magnified by bewildering decisions made by the party leadership and Mao. Prominent among these was the decision to launch the Great Leap Forward program of modernization that called for the creation “backyard steel” furnaces as a way of achieving production levels comparable to the USSR and the

US (Dikötter 2010: 56-66). Similarly, the internal chaos in the Cultural Revolution claimed many educated elites as victims robbing the country of human capital. The factional fighting during this period also resulted in disruptions as disparate groups took control of production facilities to achieve power and prestige (Gill and Kim 1995: 33; Cheung 2013: 39). Moreover, the relocation of industrial facilities to the interior of the country without adequate concern for consequences once again hampered production.

With so many challenges and missteps, China's defense sector would have been unable to make even the modest progress if it had not received foreign assistance and this came primarily from the USSR. In 1950 the USSR signed the Treaty of Friendship, Alliance, and Mutual Assistance, provided a loan of \$300 million, established a permanent military mission in Beijing, and sent 3000 military advisors (Garthoff 1963: 84; Gill and Kim 1995: 19). The USSR also assisted with the building of more than 25% of the small and medium defense enterprises operating in China at the end of the 1950s and helped with construction and operation of 50 other heavy industrial plants (Gill and Kim 1995: 19; Cheung 2013: 27).³⁵ A large portion of the Chinese arsenal had its origins in the USSR which created a strong dependence. Therefore, as the Sino-Soviet rift turned into outright hostility the Chinese defense sector suffered major setbacks (Goodwin 2000: 15).

Compounding the failures of the domestic defense sector and disappearing Soviet assistance, China also failed to have any meaningful arms trade relationship with other major defense suppliers. As early as 1950 the US imposed a comprehensive economic embargo on China because of the Korean War (Zhang 2001). Around the same time,

³⁵ For an overview of Soviet technical, industrial, and military assistance see Gill and Kim (1995: 19-34).

America also attempted to convince its NATO allies to maintain a “China differential” in their trade relations and lobbied for imposing special export controls (Stuart and Tow 1982). Even as the Sino-Soviet split became more pronounced, China’s arms imports from the West remained nonexistent until relations normalized in 1972 and even after China’s opening, they did not increase in any significant way.

In summary Mao’s domestic policies, both political and economic, left its own defense sector thoroughly underdeveloped and his isolationist foreign policy cut the country off from foreign imports of advanced weapons. It is no surprise then that China’s military found itself thoroughly underequipped and badly in need of reforms. In the next two sections, I discuss how China relaxed its foreign policy and set out onto the path of military reforms and modernization of the defense sector.

5.4 CHINESE FOREIGN POLICY IN THE REFORM ERA: 1979-1991

In the years after the death of Mao, China underwent substantial transformations both economically and politically. Shortly after the death of the CCP’s founder in 1976, China experienced a power struggle that was ultimately won by Deng Xiaoping. As Deng consolidated power he refocused the efforts of the party and the country towards economic prosperity and modernization. Since the beginning of his tenure, Deng understood that if China was to become prosperous and catch up economically to the developed world it needed domestic tranquility, international security, and friendly relations with its more well-off neighbors (Robinson 1995: 568; Cheung 2013: 53).

Both domestic and foreign policy of the new Chinese regime were a break from the past. On the domestic front, Deng deemphasized the revolutionary politics and

devoted the party's energy to economic issues. Whereas Mao's tenure was characterized by bitter ideological struggles between different factions, Deng's approach to the internal politics of China was more pragmatic. For example, Deng worked to gradually phase out Maoist ideologues and elevate reform minded modernizers such as Hu Yaobang and Zhao Zhiyang (Robinson 1995: 569). The process of deemphasizing anti-Western sentiment in China was also steppingstone to friendlier relations with the US and its allies which was an essential component of the economic reforms. This policy stood in stark contrast to Mao's belief that war with the US was inevitable.

On the international front, Deng moved to ensure that security threats in the international system would not interfere with domestic reforms. Chief among those threats was its relationship with the USSR. By the late 1970s the Chinese listed three major obstacles to better Sino-Soviet relations. These were the presence of Soviet forces on the Chinese border, Soviet support for Vietnamese occupation of Cambodia, and the Soviet occupation of Afghanistan. However, Deng responded to Brezhnev's overtures and began a friendlier dialogue with its northern neighbor in 1982. Thus, Deng's strategy towards the superpowers resembled an equidistance that guaranteed Chinese security while at the same ensured its foreign policy independence (Robinson 1995). This delicate balancing act certainly provided the strategic peace of mind to enable China's rise but by itself was not sufficient.

A key component of Deng's overall agenda of ensuring economic wellbeing of China was friendlier relations with more developed countries. While China benefited from the economic assistance and technological knowhow of the USSR in the 1950s, Deng realized that the center of economic power lay not in communist world but in

Northeast Asia, Europe, and North America. If China wanted to catch up with the rest of the world it would need inflows of investment and technology from these countries. At the same time, it would need to engage the world trading system by exporting goods and services to avoid massive debt burdens. In essence, China would no longer be isolated for ideological reasons but would rather accept the increasing interdependence among the nations of the world.

5.5 CHINESE ECONOMIC DEVELOPMENT AND DEFENSE ACQUISITION IN THE REFORM ERA: 1979-1991

With the benefit of hindsight, Deng's economic reforms are seen by modern scholars as nothing short of miraculous. The trajectory for economic development that Deng put China on yielded a sustained growth rate of nearly 10% per year and lifted more than 400 million people out of poverty in a span of thirty years. To delve into the details of China's economic reforms are beyond the scope and mandate of this dissertation and therefore, I restrict the discussion here to those economic policies that had an effect on the country's defense sector.³⁶ To achieve the goal of improving the national economy, Deng argued that the priority must be peace and prosperity and not war and security. A key component of this strategy was to utilize the advantages of a relatively harmonious international environment, achieved through its foreign policy maneuvers outlined in the previous section, and translate it into fewer resources being allocated to military which would free up resources for the civilian economy.

³⁶ For a review of the China's economic reforms in the post-Mao era, see Perkins (1988; 1994).

Practically speaking there were two ways to achieve this goal. First, reduce the footprint of the military as measured in the manpower and number of organizations devoted to supplying and equipping it. On the issue of manpower, by 1985 the number of military personnel had been reduced by 1 million which amounted to 25% of the force (Cordesman and Kleiber 2007: 41; Cheung 2013: 54). The bulk of these reductions came from the army, while the air force and the navy remained relatively stable. These changes were consistent with the new military doctrine of “People’s War under Modern Conditions”. The strategy was in sharp contrast to Mao’s philosophy that through numbers and willpower the PLA could defeat any adversary. On the issue of the reducing the organizations, China began a process known as defense conversion whereby entities devoted to supplying and equipping the military were now required to concentrate their energy on the production of civilian goods. The strategy yielded mixed results because these organizations had no experience in competing with their civilian peers, were not adept at innovating, and had little understanding about how to meet the demands of end users.

The second piece of the overall strategy in the defense sector was to increase the efficiency of the organizations that remained. Although the same principles of reform that were applied to SOEs in the civilian sector were applied, there was little improvement in the remaining defense industries. Among the common problems that plagued them was the segregation of institutions that should ideally work in close coordination. For example, R&D institutions created designs without consulting production managers which left them unaware of the practical limitations of their designs (Crane et al. 2005b: 145; Cheung 2013: 90). Additionally, industry managers had no incentive to improve

efficiency since they were simply paid cost plus a 5% profit and contract awards were not based on competitive bidding but a function of patronage networks or bureaucratic deal making. However, there were some attempts at reforms, but their results were far short of the goals. For example, one of the reforms called for representatives of the end users such as an army unit to be physically present at the production or R&D facility to bridge the gap between the producer and the end user. However, these representatives were poorly trained to carry out their duties and were paid not by their units but by the production entities. On the organizational front Crane et al. (2005b: 146-149) make the case that any changes made by the Chinese government were largely cosmetic and made little or no impact on the incentives or production numbers.

5.6 CHINESE FOREIGN POLICY IN THE POST-COLD WAR ERA: 1991- PRESENT

The demise of the USSR was an important geopolitical event that reverberated around many capitals including Beijing. The CCP had witnessed the swift downfall of a regime that looked a lot like itself. The Soviet Communist Party (SCP) had for decades retained its grip on power by suppressing opposing viewpoints and eliminating political opponents. But in return for this monopoly on political power it was unable to maintain the standards of living for ordinary citizens because of its economic mismanagement. Ultimately the haphazard manner in which the Soviet leadership tried to reform the economy and politics led to its breakup. It was exactly this fate that the CCP wanted to avoid at all costs. The Chinese leadership had decided that while it would slowly relinquish state control of the economy it would maintain a firm grip on political power.

The CCP's response to the 1989 Tiananmen Square protests demonstrated how far the leadership in Beijing was willing to go to maintain its grip on power and prevent the newfound economic openness from seeping into the political arena. Managing this tradeoff between political power and rising standards of living for the ordinary Chinese citizens became the main preoccupation of the CCP. Fortunately for the China's leadership the economic reforms bore fruit leading to a sustained period of economic growth and delivered the much needed rise in standards of living for the ordinary citizen.

In addition to consolidating power and managing the economy, China also began to engage the international community. Deng (2012: 6) argues that China's post-Cold War foreign policy underwent a "truly remarkable" change in comparison to its Maoist past that was characterized by isolation. Rigid emphasis on sovereignty and independence gave way to an embrace of international institutions and an acceptance of its responsibilities as a stakeholder of the international system. For example, China began the process of normalizing its relationship with countries in its immediate neighborhood and by 1991 it had reestablished normal diplomatic relations with all members of the Association of South East Asian Nations (ASEAN) (Ba 2003). Similarly, China joined the World Trade Organization (WTO) in 2001 as foreign capital, exports of manufactured goods, and imports of energy and raw material became ever more important to its economy. It is safe to assume that China's post-Cold War foreign policy emphasizes the need to engage its neighbors. However, diplomatic engagement and economic partnerships only paints a partial picture of China's overall international strategy.

Avery Goldstein (2005), argues that sometime in the mid-1990s China's leadership came to an agreement on an overall strategy for China in the international

arena. According to this strategy, China would continue to promote its status as a rising power while recognizing the constraints it faces in an era of unipolarity. The challenge in this strategy would be reduce the risk of the US and its allies perceiving a rising China as a threat and ultimately attempting to isolate or contain it (Sutter 2012).

There are several facets of this overall strategy. But the three primary ones are continued economic growth at home, engagement with international community and its institutions to rewrite the rules to make it more favorable to China, and military modernization to deter any challenges to its status as a rising power. Each one of these can be seen as complimentary to one another. I concentrate the remainder of this chapter on military modernization.

To better understand China's military modernization program in the post-Cold War era, I first outline the contemporary motivations behind such a program. M. Taylor Fravel (2008) provides a useful list of objectives that motivate China to build a robust military. The first is regime security. After the collapse of many other authoritarian regimes around it including its Communist counterparts in the USSR, its own experience with protests in Tiananmen Square and Hong Kong, and 'separatist' movements in Xinjiang and Tibet the top priority for the CCP will be to retain its monopoly on political power. To this end, the party believes a strong and agile military is essential to deterring any internal challenges.

The second and obvious goal of territorial integrity has been important to Chinese policymakers since beginning of the CCP's reign. For example, in the early days of the Cold War China came face to face with the prospect of an invasion from the US during the Korean War. Later on it was also threatened by the USSR during the late 1960s. Even

during the early years of Deng's regime, it engaged in perilous border skirmishes against Vietnam which by many accounts was relatively weaker opponent.

The third goal of national unification with Taiwan has been a long-standing issue with respect to China's domestic politics and its international relationship with the US and its allies. The CCP considers Taiwan as a breakaway province but so far diplomatic maneuvers have kept the island nation from declaring formal independence from the PRC. The CCP has declared that any attempts to make such a declaration could prompt a military confrontation but this threat to use force would have to be credible given that Taiwan is a formal ally of the US.

The fourth goal and fifth goals of maritime security and regional stability can be arguably grouped together. China's current economic structure means that it is heavily dependent on trading relationships for continued growth. Its economy is heavily dependent on partners accepting exports and it also requires a reliable stream of imports of natural resources and energy to keep its economic machine humming. Since economic growth is key to the CCP hold on political power, it is obvious that Chinese policy and in particular military policy will be designed to minimize the risks to this growth model. This means that China must safeguard the sea lanes that enable the free flow of goods and it would be in China's interest to help maintain the political and economic stability of its trading partners.

5.7 CHINESE MILITARY MODERNIZATION AND DEFENSE ACQUISITION IN THE POST-COLD WAR ERA: 1991-PRESENT

In the post-Cold War era, the prominent China scholar David Shambaugh (2002) argues the three events that prompted the Chinese leadership to examine its past and ongoing efforts to modernize the PLA were (1) the Gulf War, (2) the Taiwan Straits Crisis, and (3) the NATO bombing of Yugoslavia. The Gulf War made the Chinese leadership realize just how outdated its technology was in comparison to the US and its NATO allies. It drove home the point that any modernization efforts must include the incorporation of information technology into its warfighting efforts. The Taiwan Straits Crisis demonstrated that while the PLA was prepared to overwhelm the defenses of the island nation, it was unprepared for American assistance of Taiwan. Finally, the NATO air campaign over the Balkans made the Chinese realize that unipolarity of the international system characterized by overwhelming American military dominance meant that the US could dictate policy even on affairs internal to countries. This opened up the possibility that the US could decisively weigh in on issues related to Tibet or Xinjiang.

The Chinese leadership has fought and continues to fight a battle on several fronts to modernize the PLA. On one front, the CCP must continue its organizational reforms that lead to a more streamlined military in terms of personnel and training. On the other front it must procure the equipment necessary to achieve the goals outlined in the previous section. I will focus the remainder of this chapter's discussion on China's effort to procure modern defense equipment.³⁷

³⁷ For discussion on organizational reforms of PLA see Crane et al. (2005a)

By the mid-1990s, Shambaugh (1996: 286) argues that Chinese decision makers had shifted the doctrine from Deng Xiaoping's "limited war under modern conditions" to "limited war under high technology conditions" and attempted to procure weapons systems accordingly. As mentioned earlier there are two possible ways a country can procure defense equipment. Either through arms trade or producing them indigenously.

As far as import of defense equipment was concerned China's options have historically been limited. This can be directly attributed to its foreign policy and relative isolation. In the early days of the Cold War, China did rely on the USSR but this route quickly closed down as disagreement between the two countries turned into outright hostility.

A variety of Chinese actions during the Cold War also made it deeply hostile to the *other* major group of defense suppliers, i.e. America and its allies. For example, China entered the Korean War and directly engaged UN forces in the 1950s and supported Communist North Vietnam against American backed South Vietnam during the 1960s and 1970s. Even after Nixon's visit to China in 1972 several issues remained that made defense cooperation with Western suppliers impossible. These included China's historical grievance against Japanese occupation, its desire to unify Taiwan with itself, its desire to see American forces removed from the Korean peninsula, and territorial disputes over islands.³⁸ Although revolutionary fervor associated with Mao's chaotic style of governance had abated, the political calculus of major defense suppliers with respect to China did not change in any meaningful way. In the mid-1980s, with Deng Xiaoping at the helm, there appeared a sliver of hope that a few small arms deals

³⁸ For a list of China's territorial disputes see Fravel (2005: 56-57). For a brief discussion of China's historical grievances with Japan see Christensen (2003: 27-29)

could pave the way for greater cooperation. In 1985 the Reagan administration agreed to sell Mark-46 anti-submarine torpedoes, and AN/TPQ-37 artillery-locating radars in addition to providing assistance with modernizing a few munitions plants (Woon 1989: 603; Archick, Grimmett, and Kan 2005: 4). However, the brutal crackdown of Tiananmen Square ended any hope of such cooperation as the US and its European allies responded with an arms embargo. In the years since the imposition of sanctions, major arms suppliers such as France and Germany have shown interest in lifting the sanctions as China demonstrated the potential to become a lucrative defense market. However, Chinese policies opposing Taiwanese independence in 2005 made lifting the sanctions nearly impossible. Similar provocative actions such as unilaterally claiming disputed islands in the South China Sea make it difficult for any Western supplier to consider providing modern defense equipment to China. Scholars such as Gupta (2013) views the continuation of sanctions by the EU as evidence that despite China's as a failure of its foreign policy to convince other major countries that it will act responsibly with its newfound economic and military power.

In contrast the one country that did resume arms sales to China was Russia. The end of the Cold War meant that the Russian economy and its defense industry was cash strapped and was looking for customers to fill the void left by the Soviet military.³⁹ The key moment in the relationship came when the two countries agreed to the licensed production of Sukhoi SU-27 aircraft for \$1.4 billion in 1992 (Garnett 2001). In the years after the deal, China steadily became the number one destination for Russian arms exports as Chinese purchasing power and appetite for military modernization increased.

³⁹ Soviet military expenditure were estimated to be \$382 billion in 1988 but had shrunk to \$60 billion by 1992 and bottomed out at \$19 billion in 1998 (Wezeman 2017: 85).

Some of the prominent defense deals include the S-300 SAM defense system, *Sovremenny*-class guided missile destroyer, and *Kilo*-class diesel electric submarine (Bitzinger and Boutin 2009: 140; Meick 2017: 12). Russia and China also undertook joint development and production on nearly 100 defense projects. Russian supplies became so important that it constituted 87% of Chinese arms imports at the turn of the century. However, as the Chinese defense sector reforms bore fruit and the civilian economy became technologically advanced, China began to demand more high technology equipment. China also began to complain about the quality of the equipment and at the same time China's strategy of reverse engineering sensitive Russian systems threatened the promising relationship. Moreover, the China-Russian arms trade was devoid of any long-term strategic cooperation.

The above discussion demonstrates that China's foreign policy and strategic objectives made it difficult to reliably procure weapons from overseas suppliers. In the absence of options the Chinese were forced to concentrate their resources on indigenous defense production.

On the domestic front, the Chinese leadership had to cope with notion that their defense technology was at least 20 years behind major European powers like the UK and France and at least 30-40 years behind the US at the end of the Cold War. One of the most authoritative accounts of China's journey to increase home grown defense production comes from Cheung (2011; 2013) who argues that the country has made significant progress in transforming its defense sector from one reliant on imitation of foreign systems to one based on innovation. According to this author there are two types of innovation that are at the heart of this recent progress. The first is soft innovation

which requires changes to social, political, and organizational structures that govern domestic defense production. Examples of such innovation in China include changing norms of interaction between different entities involved in production, enhancing the role of end users, and reducing bureaucratic red tape (Cheung 2011: 343). The second is hard innovation and this includes developing a strong R&D apparatus, nurturing human capital in the form of scientists and engineers, and fostering connections with innovation driven civilian industries (Cheung 2011: 333). The progress described by Cheung is the equivalent of climbing the ladder of production described earlier in this dissertation.

A key driver of this soft and hard innovation strategy has been the role of the Chinese leadership and their commitment to the program of military modernization (Cheung 2011: 344-346). The CCP has shown interest and demonstrated engagement to this program by visiting production facilities, giving speeches on different initiatives, providing strategic guidance by formulating grand strategies and having a long-term vision, maintaining rigorous oversight of the bureaucracy, and making available a large amount of fiscal resources.

This strategy of innovation, both soft and hard, has yielded some impressive results. According to a recent report by the US-China Economic and Security Review Commission, Chinese defense industries have undergone “a dramatic and successful transformation, surpassing the expectations of even the most forward-leaning analyst” (Mulvenon and Tyroler-Cooper 2009). The report’s authors further argue that the reforms of 1998 have led to a more diversified defense sector with new areas of excellence such as shipbuilding. This success can be attributed in large part to the growing IT sector in China’s civilian economy and the integration of the defense sector with global R&D

supply chain (Bitzinger and Boutin 2009: 135). One of the notable milestones in this modernization drive has been successful development of the 5th generation J-20 stealth aircraft in 2011; an achievement that most defense experts considered to be more than a decade ahead of projections (Shlapak 2012: 197). Similarly, less than 10 years after importing Russian *Kilo*-class diesel submarines to fill a critical shortfall, China was able to launch the *Yuan*-class submarines which came as a surprise to American intelligence with respect to its development timeline (Chang and Dotson 2012).

5.8 ANALYSIS OF THE CHINESE CASE

Reviewing the discussion of China's foreign policy in combination with its defense acquisition policy I draw a number of conclusions. First, China's history of isolation, its ideology, and its future geopolitical goals have made it difficult to have constructive relationship on the issue of arms transfers with major defense suppliers with perhaps the exception of Russia. Major defense suppliers have been reluctant to arm China with sophisticated weapons because the geopolitical goals of these suppliers have little overlap with that of the Chinese. Therefore, the only logical foundation on which to build a modern military is its own defense industrial sector. Although Mao and the early CCP leadership did attempt to build their own defense industries, their efforts were doomed from the beginning because of the excessive centralized control and misguided industrial policy that was driven more by ideology and less by the needs of its military. Subsequent reforms by the CCP did reverse the damage of the planned economy but the key has been the desire of the leadership to adopt new policies when the existing ones failed to achieve the desired goals. This is particularly evident when comparing the

defense sector reforms of the 1980s with those of the late 1990s. While the former made some gains by reducing the number of inefficient defense enterprises the latter truly boosted China's ability to indigenously develop a few select systems through original R&D. In effect, the reforms of the late 1990s allowed China to meaningfully climb the ladder of defense production whereby it no longer is solely dependent on imports for advanced weapons.

5.9 DISCUSSION

The case studies of India and China demonstrate the different routes that countries can take to modernize their militaries. In India's case it has historically been unable to produce adequate quantities of sophisticated defense equipment despite a significantly enlarged and growing economic base. There are many culprits for this failure and prominent among them are poor civil-military relations, lack of political interest, bureaucratic ineptitude, and very little cooperation with the private sector. In response, India has become one of the largest importers of weapons in the world. To mitigate the problem overreliance on any one supplier, a potential consequence of becoming a large importer, India has sought to leverage its foreign policy. In particular, it has attempted to diversify its portfolio of suppliers by holding onto traditional partners such as Russia while cultivating new ones such as the US and Israel.

In contrast, China's program of modernization cannot rely on foreign suppliers because of its foreign policy history and geopolitical goals. Therefore, it has been forced to concentrate its efforts on extracting the most out of its own defense sector. Recognizing the reluctance of foreign suppliers to provide modern weapons, the Chinese leadership has focused on reforming the defense sector, forcing it to work with its own

private sector, and backing it up with sufficient political and economic resources. These cases demonstrate that the process of military modernization is not simply a function of research breakthroughs, technology, or resources devoted. Rather it illustrates how ideology, foreign policy, domestic affairs, and the complex interplay of all these factors can have a significant impact on military reforms and modernization. The significance of uncovering these factors is that it provides a window into whether rising powers can translate their economic might into military power as a way of reshaping the international system to their own advantage.

TABLE 5.1: Timeline of Indian and Chinese Defense Acquisition.

Country	Time Period	Foreign Policy	Domestic Defense Production	Imports of Defense Equipment
India	1947-1970	Nonaligned.	Largely neglected with little financial or political commitment.	Continued imports to service legacy equipment from the UK. Additional purchases from US and the USSR.
	1971-1991	Strategic alliance with the USSR.	Modest improvements lead to assembly of foreign components and licensed production. Found success in its space and ballistic missile program.	Attempted to diversify suppliers but largely dependent on the USSR.
	1991-Present	Increased engagement with major powers but maintained strategic independence without Soviet assistance.	Enacted organizational reforms and devoted additional resources but made very little progress on major weapons systems.	Increases imports to compensate for poor domestic production. Further diversifies suppliers to prevent overdependence on the Russia.
China	1949-1970	Aligned with the USSR till the late 1950s. Isolationist from mid-1960s to 1970.	Practiced licensed production and assembly of Soviet components. Resorted to reverse engineering during isolationist period.	Complete dependence on the USSR. Imports dry up after Sino-Soviet rift.
	1970-1991	Normalization of relations with the USSR and the Soviet Union. Reengaged the world to focus on domestic affairs and to attract investment and technology.	Focused on defense conversion and improved efficiency of defense sector. Made little improvement in developing new systems.	Partial resumption of supply of some Soviet weapons. Little or no imports from Western suppliers.
	1991-Present	Pursued greater engagement with the international community but remains opposed to the US and its Western allies because of its own rising power status and fears of American unipolarity.	Reforms lead to indigenous development and production of a few select weapon systems through cooperation with private sector and greater financial commitment.	Increase in arms shipment from Russia which level off in the mid-2000s. Embargo on arms imports by Western suppliers after Tiananmen Square and continue to this date.

CHAPTER 6

CONCLUSION

6.1 RESEARCH QUESTIONS REVISITED

In this dissertation, I have striven to contribute to the literature on international security by exploring the topic of international arms transfer. In this endeavor, I have successfully answered three primary questions. First, what makes imported weapons different from domestically produced weapons? Second, what effects do arms imports have on interstate conflict? Third, what factors affect the arms acquisition process? And fourth, given that countries frequently import weapons from external suppliers how do they mitigate the problem of dependence?

6.2 UNDERLYING MOTIVATION

Before I recap the findings of this dissertation that answer the aforementioned questions, I revisit my underlying motivation for this dissertation. Much of the literature on international arms trade has focused on the supply side in comparison to the demand side that has received relatively little attention. In particular contemporary scholarship has focused on the motivations for imposing arms embargos and its effects. There are several reasons for this state of the literature. First, there have traditionally been only a handful of nations with the industrial and technological capacity to deliver modern weapons to their clients. This has enabled them to leverage their role as suppliers to influence their clients substantially in terms of foreign policy and in some cases in terms

of domestic policy. However, as more countries have climbed the ladder of economic development more suppliers have entered the market for conventional weapons. Additionally, many of the former recipients themselves have been able to produce the kinds of weapons that were prior only available through import. Furthermore, as the animosity of the Cold War ended, the demand for security expenditure forced countries to loosen the criteria for arms exports to maintain support for their domestic defense industries which had the effect of turning the arms market into one where buyers had increased leverage.

Second, supplier leverage combined with the perceived adverse effect of arms transfers have led many to believe that solutions to problems such as corruption, human rights abuses, and civil wars among recipient countries can be resolved by altering the behavior of suppliers. To achieve this goal, governments, advocacy groups, and international organizations have worked to put in place a set of national and international rules to prevent arms transfers from causing or exacerbating the aforementioned problems.

6.3 FINDINGS

Yet in concentrating on the supply side, researchers seemed to have ignored the reasons that push countries to access this international market in the first place. One of the primary contributions of this dissertation has been to clarify the motivations that exist at the level of the nation state to engage in the basic act of arming itself. States are driven by a variety of incentives to enhance their own military capabilities through arms acquisitions such as domestic politics, economic aspirations, and security concerns.

Countries exhibit an overwhelming desire to fully control their own supply of arms production for fears of finding themselves dependent during times of crisis. This dependency creates a vulnerability that can be exploited by supplier countries to extract policy concessions from the recipient. But despite this strong motivation most countries are not self-sufficient in arms production for economic and technological reasons and therefore reluctantly enter the international arms market to fulfill their requirements. In chapter 2, I showed that by importing some portion of their weapons portfolio, countries acquire more capable, more reliable, and more cost-efficient systems. These characteristics are crucial to distinguish domestically produced weapons from imported ones and to the best of my knowledge the literature has not tackled this difference so far.

In the first part of chapter 3, I argued that similar to the intrastate conflict literature, opportunities for conflict expand when a country receives shipments of imported weapons. This increases the likelihood that a country will initiate a conflict. I find evidence for this hypothesis and show that high levels of inflows of weapons (imports valued at greater than 3% of GDP) increase the likelihood of conflict initiation by 2.36 percentage points. This finding demonstrates that arms transfers can have substantial negative effect on interstate relations. Furthermore, the findings are in line with previous work that document the destabilizing effects of arms transfers on the internal affairs of a country. The evidence presented in chapter 3, has implications for both national and international policy governing the sale of weapons.

In second part of chapter 3, I examined the effect of alliances on interstate conflict. The debate on alliances is closely tied to the policy of increasing military capabilities through arms acquisitions as both are seen as different routes countries take

to achieve greater levels of security. Despite the tradeoff between the two policy options that is well documented in the literature many countries have both alliances partnerships and import conventional weapons at the same time. Therefore, the question is what the effects on interstate conflict are when both exist simultaneously. I attempt to answer this question in chapter 3. However, contrary to the findings in previous studies, I find that alliances do not increase the likelihood of conflict in any meaningful way when accompanied with relatively high levels of arms imports. One potential explanation for this finding is the difference in the reliability of each policy. In effect the question becomes, are suppliers of conventional weapons more likely to honor their agreements than alliance partners. Second potential explanation for this finding is that arms imports change the calculus of a challenger state with respect to its own capabilities that make it more likely to be aggressive towards targets in a way that alliances simply do not.

Finally, in chapters 4 and 5, I step away from the empirical analysis and attempt to explain the rather understudied process of arms acquisition. I do so by examining two countries, India and China, which have undertaken significant military modernization programs since the end of the Cold War. Both chapters incorporate the ideological, political, bureaucratic, and foreign policy explanations for why both countries found themselves in a rather shambolic state of affairs with respect to arms acquisition. By detailing these factors and how they evolved over the course of the Cold War, I was able to set the stage for differing paths each of the countries would take to rectify the state of their arms acquisition policy. I find that, India and China were deeply concerned about becoming dependent on foreign suppliers. However, given their own unique histories they seem to have mitigated the problem of dependency in their own ways. On the one

hand India, which has unable to reform its domestic defense industry or its industrial sector, has diversified its portfolio of suppliers by leveraging its foreign policy and friendly relations with many of the major suppliers of weapons. On the other hand China, which has been shut off from international arms market because of its relationship with major suppliers, has sought to leverage the strength of its domestic economy and industrial sector to create a more sophisticated defense industrial base. Both chapters have been crucial in understanding the underlying process by which countries acquire weapons and the challenges they face. Furthermore, it adds to the literature on arms transfer by providing concrete evidence of how countries can achieve their security goals without becoming dependent on external entities.

6.4 FUTURE RESEARCH

This dissertation opens several avenues of further inquiry. With respect to arms imports, the next logical step is to find out if arms imports affect the probability of achieving national goals. Future research on the topic can investigate whether countries that import weapons are more or less likely to prevail in a conflict. This topic is important because countries often expend their policy autonomy and substantial amount of their resources to purchase these sophisticated weapons. By investigating this question, scholars can understand if the costs borne by a country to acquire these weapons are worthwhile. The policy implications of answering this question can be profound. In particular, if we find that weapons are indeed worthwhile it would appear that countries are rational security maximizers. On the other hand, if the findings reveal that possessing these weapons does not materially affect the outcome of the conflict it could call into

question the wisdom of purchasing these weapons or it could present evidence for the idea that states are motivated by factors other than simply maximizing their security.

On the topic of alliances several authors have sought to understand if alliances change over time and if they do through what mechanism. I argue that one of the key mechanisms by which an alliance is strengthened is when there is cooperation on arms acquisition. Cooperation through arms transfers could increase the efficiency of military budgets and increase the interoperability of the individual armed forces. Research on this topic could benefit from better data collection on bilateral arms transfers. Finally, given the comparison between arms and alliances as alternative policy options it would seem logical to compare and contrast the reliability of both options. Existing studies have shown that alliances are highly reliable. If bilateral arms transfer relationships exhibit similar levels of reliability it would certainly add to the debate on dependency that arms transfers are supposed to create.

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