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UNIVERSITY OF CALIFORNIA,
IRVINE

The Political Economy of National Security: Fighter Planes, the Weapons
Trade, and National Security in the World System

submitted in partial satisfaction of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in Social Science

by

Angela Martin Crowley

Dissertation Committee:
Professor David A. Smith, Chair
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2001

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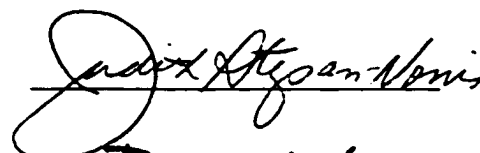
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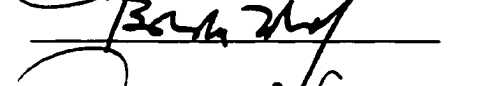
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Committee Chair

University of California, Irvine
2000

DEDICATION

To Mike,
for all that you have done,

and to Julia,
for all the joy you bring.

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The inputs have been many; I alone stand responsible for any errors in the final product.

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ABSTRACT OF THE DISSERTATION

The Political Economy of National Security: Fighter Planes, the Weapons
Trade, and National Security in the World System

by

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Doctor of Philosophy in Social Science

University of California, Irvine, 2001

Professor David A. Smith, Chair

The question of whether states are best seen as rational actors, world-cultural vessels, or components of a world capitalist system is a prominent theme in the sociology and political science of international relations today. At the same time, the field of security studies is undergoing a reevaluation in light of both recent real-world changes and development in international relations theorizing. In this dissertation, I address both the debates from a new theoretical perspective, that of the political economy of the world system through an examination of the trade patterns of three fighter aircraft.

The study's methodology involves both quantitative analysis of the international trade in fighter aircraft between 1970 and 1990, and historical analysis of four case study states – Pakistan, Spain, Greece, and India – which acquired or negotiated for more than one aircraft of similar capabilities.

I conclude that states use fighter aircraft as tools of national security, and that the conception of national security itself changes as a function of

shifts in the world system. The semi-peripheral states in this study attach controversial development and political linkage goals to their aircraft acquisitions programs, thereby coding them as issues of national security. This process cannot be fully understood without taking into account power relations between states and the development trajectories of individual countries, and only in the context of a given historical moment can a particular conception of security be said to operate.

CHAPTER ONE

INTRODUCTION

Statement of the Problem

Across the social sciences, current debates center on whether actors are rational self-maximizers or culturally-created entities acting on the basis of institutionalized experiences and normative expectations. A number of recent works have brought this debate into an arena once beyond sociology's pale and until recently almost exclusively the purview of international relations realists: national security. For realists, national security has long meant a defense of territorial integrity, and the arming imperative has been regarded as a right and expectation of the sovereign state. The predominant response, which comes from sociology's "new institutionalism" or world-polity institutionalists, posits national security as a normative component of a global culture, with the arming imperative a symbolic enactment of modern statehood. The broader theoretical implications for state action within the international system are clear: state (in this case, national security) preferences are either logically-articulated choices made by rational states and framed by (military) goals, or they are the predictable and standardized responses to the normative pressures of an increasingly prevalent world culture, with possibly very little to do with any given state's specific historic (threat) circumstances or political-economic context.

Yet these two views, which frame current debates on not only national security but more general questions of state form and action, overlook a number of factors acknowledged by world systems theorists to be crucial to understanding processes of state-building; these include, among others, development trajectories, configurations of power within the state, and the location of states in the world-system. Equally important, neither can fully explain the pattern of some major weapons transfers from the core to the semi-periphery during the previous thirty-year period. Specifically, semi-peripheral states ranging from Spain to Pakistan, Greece to India, acquired numerous fighter planes during the 1970s and 1980s in ways similar to one another but divergent from predictions of the two predominant theoretical perspectives. These states and others negotiated for and acquired from more than one supplier state the most sophisticated aircraft of the era.

The acquisitions of fighter aircraft from a range of suppliers, behavior not predicted by existing theory on arms transfers, raises the following broad questions: why and how do some non-core states choose a particular major weapons system – or systems -- over another? How do states define national security and acquire the major weapons systems found in their arsenals? In other words, how are national security preferences specified and translated into results? In attempting to answer these questions, I draw on world systems theory to elaborate a definition of national security in the semi-periphery which incorporates the following factors: the development goals inherent in national security policies; the systemic-level pressures influencing

state-level debates about what national security is; and the tools states use and constraints they face in achieving their security objectives. In making the argument that weapons acquisitions and national security agendas are closely linked to states' development and growth goals, I will delineate the following: a) the development strategies inherent in some semi-peripheral arming programs, b) the rhetoric associated with major weapons systems acquisitions, and c) the impact of power relations on acquisition decisions. The goals of this study are three-fold: first, I hope to speak to the question of how and why states arm the way they do; second, this study will address the current debates between realist and institutionalist scholars from a perspective which has, as yet, had little to contribute to them; and third, as one of the first world systems studies of the international arms trade, this dissertation will expand the empirical and theoretical base of the field.

Most existing research on arms transfers derive from realist international relations theory on national security. Scholars working from this viewpoint argue that sovereign states are autonomous and rational, that they are part of an anarchical states system, and that arms transfers take place as part of balance-of-power political processes, including territorial defense and the maintenance of national security interests (Catrina 1994; Murray and Viotti 1989a; Murray and Viotti 1989b). The concept of national security as derived from international relations focuses on the ability of states to anticipate and react appropriately to threats to their territorial integrity: a well-armed state is a secure state. Thus, states arm in rational and predictable patterns in

response to threat assessment and/or in response to the preferences of their super-power suppliers.

The primary response to the long-dominant realist approach comes from political science's constructivism and sociology's new institutionalism. Institutionalists argue that states acquire weapons as symbols, and that they are enactments of modern, sovereign statehood. Symbols become meaningful and diffuse throughout the world; thus, evidence for diffusion of a particular norm (one which is not, institutionalists point out, rational) might be the adoption of, for instance, human rights agreements by a wide range of states in a given time-frame. Weapons, according to this perspective, are transferred as much for their symbolic value -- not only as deterrents but as symbols of the well-armed state and even the sovereign state -- as they are for their strategic value. Picking up on the numerous anomalies unexplained by realist theory, the new institutionalists point out the irrationality of this behavior and attribute it to status-seeking. States are, in this view, attempting to acquire and display standard, ritualized symbols of statehood as prescribed by a global culture.

A third, more mid-level and multi-faceted approach can be drawn from world systems theory, and in particular the literature dealing with the relationship between development, power, and technology in the world-system. Developing states actively seek to acquire advanced technology from the core, where it originates. Advanced technology, including that contained in major weapons systems, is viewed as key to the economic development

process. At the same time, a wide range of states, including most post-colonial states, have viewed the creation of an indigenous defense production capacity as a key component of not only national security but also economic development (Mullins 1987). Many of the peripheral states of sub-Saharan Africa were limited to the acquisition of military equipment through two primary mechanisms: cast-off outdated supplies from their former European colonizers and/or aligning with one of the two Cold War-era super-power suppliers for equipment which has ranged from leading-edge to antiquated. However, a wide range of semi-peripheral states, including Brazil, Israel, India, Greece, Turkey, Czechoslovakia, and China, have sought to develop an indigenous defense capacity, with varying degrees of success. Their efforts have been hampered by an inability to develop indigenously or to acquire from abroad the technological capability needed to design, produce, and maintain major weapons systems. The power differentials inherent in the world-system, both political and economic, make favorable acquisitions difficult for semi-peripheral states, and systemic inequality is reinforced by the relative dearth of technology outside the core (Smith 1997). Semi-peripheral states are at times able to use their geographic position or other circumstances of interest to the key suppliers (the United States and the former Soviet Union) to bargain for weapons and/or technology on more advantageous terms, but the long-term positive impact on their own development goals or systemic inequality remains open to question.

The rationale driving a number of procurement decisions can be difficult to discern. Many recipients, despite a willingness and at times an ability to pay top price, have not received the top of the line equipment they desire (e.g., Jordan's ten-year quest for the F-16). Meanwhile, other states have been the recipients of military aid (Pakistan), generous loans (India), or sophisticated equipment which they could not afford (many sub-Saharan African states) or could not incorporate effectively into service (Libya). At times, states arm when they do not have clearly-identifiable military threats on the horizon or in the recent past (Spain). Perhaps most interestingly, states at times opt for a mix of weapons systems such that capabilities overlap or are even duplicated (Pakistan, Spain, Greece, and India, among others). One example emphasizes this last point: between 1978 and 1993 India ordered, or produced under license, some 1,110 fighter aircraft comprising six basic models (with several variations within model type) from three different suppliers. Three of the planes involved, the Soviet MiG 23/27, the British-French SEPECAT Jaguar S/B/International, and the French Mirage-2000, were fighter aircraft sharing similar capabilities and were therefore roughly equally appropriate for the same missions.¹ All the planes were expensive, sophisticated, and completely non-interoperable, so the Indian decisions lack a certain cost and operational efficiency rationality. Such anomalies suggest the possibility of other, non-strategic and non-rational, factors shaping states'

¹ Two types were the MiG-21, an earlier-generation aircraft, and the SeaHarrier, a navy plane (capable of takeoff and landing on an aircraft carrier). Neither of these two aircraft falls

acquisitions strategies and conceptions of national security, including financial arrangements, development goals, and cultural pressures.

As an attempt to make more clear the complex interplay of systemic and national factors framing the national security debate, this research examines the factors driving the procurement decisions between 1970 and 1990 for three fighter aircraft (the American F-16, the French Mirage F-1, and the Soviet MiG 23/27) among four middle-power states (Spain, Greece, Pakistan, and India) whose buying patterns suggest a duplication of capabilities and therefore complex recipient motivations. Comprising the fighter aircraft technology of a generation, these three planes, which are similar in capabilities and mission, represent the top-of-the line technology of that era. The planes often were in competition for the same markets, and thus it is important to include all three in a medium-term study such as this in order to gain insight into the acquisition patterns of a technological generation both across the globe and over time. Because realist theory predicts that states choose weapons based on alliance patterns and warfare experience, and institutionalists might suggest that all states would strive to acquire the most powerfully symbolic aircraft, the ultimate decisions states make – decisions which show variance from the predictions – are important points for exploring new theoretical interpretation. The four states, semi-peripheral countries with uneasy economic and political alliances, throw into sharp relief the complex of factors surrounding states' security and development goals.

within the purview of this study, as described further below. A third type, the MiG-29, was a

Employing a sociological approach drawn from world systems studies, I will argue that in these cases the plane (or planes) chosen most conforms to a local definition of security needs broadly defined. This definition would include symbolic, political, or economic goals of state-building in addition to military requirements. Thus the acquisitions meet some non-military objective that has been incorporated into the state's security criteria. State actors attach controversial development (economic) goals, such as the creation of a national aerospace industry, or political goals, such as membership in NATO, to high-profile weapons acquisitions programs, thereby coding them as national security matters. These goals -- and what can legitimately be cast as national security -- change as a function of a state's insertion into the global political-economy. At the same time, the translation of security goals into weapons acquisitions is limited by both domestic contestation over what "national security" is and by a state's position in the global hierarchy of economic and political power, or the world system. A final, related, point I will take up in the conclusion concerns the interaction between shifts in normative behavior and changes in the political economy of the world system. The study offers important lessons about the role of power and economic development goals in the arms trade, both for students of arms control and for those interested in the ways in which states define and try to enhance national security, high-technology industry, and economic development more generally.

follow-on to the MiG 23/27.

Overview of the Dissertation

Because of the high-profile nature of major weapons systems such as fighter aircraft, states attach a wide range of goals to their aircraft acquisitions programs. States include these goals in the rhetoric of national security, and thereby use them as part of the construction of domestic identity concerns. Thus in seeking to answer the question of why states duplicate their capabilities, I will look at the other goals states attach to the acquisitions, how the deals are conducted and concluded, and how that changes over time, both within states and systemically.

Chapter Two delineates competing theoretical perspectives on states in the international system, national security, and the arming imperative. First, I sketch a timeline of security studies and trends in the world arms trading system, indicating a correlation between empirical observations of changes in the depth and breadth of the international weapons trade in the twentieth century and theoretical approaches to it. After reviewing both the long-standing realist approach and the recent institutionalist response, I develop an approach informed by world systems theory. The chapter ends with propositions generated by each view and hypotheses to explore in developing the theory. This chapter indicates that the arms trade has fluctuated in breadth and volume both as a function of the deepening of the world economy and as a function of changes in the world political system. Rather than being a changeless component of balance-of-power politics, as realists posit, or a more

recent cultural phenomenon detached from states' economic and political ambitions, as the world-polity institutionalists argue, I theorize the world arms trade in this chapter to be both closely linked to systemic capitalist processes and to states' national-level growth agendas.

Chapter Three describes the study's methodology, terminology, and data sources. I then turn to case selection, for the bulk of the dissertation is made up of a series of four case studies. Finally, I specify questions and hypotheses to be explored in subsequent chapters based on the results of chi-square and regression analysis presented in Chapter Four.

Chapter Four uses statistical analyses to test the claims of the theories. The quality of the data does not allow definitive tests of propositions. Nevertheless, it suggests that current theory on the arms trade is inadequate; relationships hypothesized by realists and institutionalists between alliances, warfare, and acquisitions timing do not hold up.

Chapter Five, focusing on Pakistan, Spain, and Greece, builds on the concept of reverse leverage to emphasize the ways in which financing arrangements and technology transfer arrangements have changed; I also analyze the ways in which states' economic and political goals are linked to certain weapons acquisitions programs. Both Spain and Greece were negotiating not only for fighter aircraft, but for industrial linkages related to the aircraft *as well as* entry into alliances deemed important, at least by some within the state, to their continued security in a broad sense. Both were involved in talks for entry (re-entry in Greece's case) into NATO; Spain was

also trying to achieve membership in the European Economic Community (now the European Union). These linkages were controversial in a number of ways, and both states successfully re-coded them as national security issues to improve their likelihood of acceptance. Pakistan, on the other hand, relied on reverse leverage to negotiate for weapons that were inappropriate for the military context, without articulating any clearly-defined additional non-military goals to its national security ideology; in Pakistan, efforts, which ultimately failed, were made to enhance inclusion into what might be called an "important friends of the United States" group. This strategy proved unsuccessful in terms of acquiring the weaponry Pakistan sought. The chapter ends with a discussion of the limits to power and its relationship to inequality, security, and development.

Chapter Six focuses on India and the links between its weapons acquisitions and its technology-oriented development strategy. First, I review recent world systems work that emphasizes the crucial role of technology in development and the system-wide "technology gap" and the resultant technological dependence that places states outside the core at a distinct developmental disadvantage. In India, efforts to propel the state into a position of regional hegemony have been based, at least in part, on ambitious arms acquisition and production programs, as well as a concerted effort to remain a non-aligned state. India negotiated with a series of suppliers for a range of aircraft which, in effect, overdetermine military preparedness but which failed to enhance its own technology base. I will look at three specific

points (drawn from Samuels (1994) study of Japan): the ideology informing its defense acquisitions and industry-building; the politics constraining those efforts; and the ways in which its national security objectives are achieved. This chapter highlights India's efforts to acquire technology through weapons transfers and indicates that the technology gap works to perpetuate systemic inequality.

Chapter Seven evaluates the merits of the theories and lays out a case for a multi-level theory that combines elements of each of the three perspectives. I will then conclude with preliminary assertions about how my work fits into a larger political-economy framework.

CHAPTER TWO

THE STATE, NATIONAL SECURITY, AND THE ARMING IMPERATIVE

In this chapter, I present a brief chronology of changes in the twentieth century arms trade and related shifts in the theories of national security. I then turn to the subset of security studies that deals with arms transfers, after which I turn to the predominant response to realism, the new institutionalism. Finally, I develop a theoretical framework for arms transfers drawing on world systems theory, which can account for systemic power dynamics, domestic development goals, and national-level security and development ideologies.

The international arms trade, by definition, has long been international in scope (see MacNeill 1982; Sampson 1977; Tilly 1992), and the period from 1970 to the present has seen the expansion of transfers of sophisticated weapons systems to an unprecedented number of states. By the mid-1970s the weapons trade was truly global: SIPRI's arms trade register indicates that 110 countries imported weapons in 1975; this total climbed to a high of 118 in 1980, tapering off to 105 in 1990 (Laurance 1992). By 1988, ACDA (the United States' Arms Control and Disarmament Agency) counted 113 states each receiving weapons worth more than \$10 million (Laurance 1992:135). The sophistication of weapons traded outside the industrialized North has grown, as well: while during the period 1951-1955, 33 non-core states received major

weapons systems (aircraft, warships, missiles, and armored vehicles), by the period 1981-1985 that number had climbed to 92 (Laurance 1992:107).

As the trade has expanded in geographic scope, its monetary dimension has also grown dramatically. The total value of major conventional weapons traded jumped from an average of \$3.83 billion a year between 1951 and 1971 to an average of \$19.1 billion a year between 1971 and 1985 (figures expressed in constant 1985 U.S. dollars) (Brzoska and Ohlson 1987:1). The value of major weapons systems transfers in the period 1986 to 1995 averaged \$32.1 billion a year (SIPRI Yearbook 1996).

If the collapse of the bipolar system has left East and West alike with only vague notions of enemy, it has also left arms transfer studies in disarray. Spawned by the burgeoning international arms trade of the early 1970s, the definitive texts on the subject show the influence of Cold War thinking on interstate behavior and focus on the *political* alliances between or within states.

The First Cut: Realism on the State, National Security, and Arming

The Sovereign State and National Security

Arms transfers studies are shaped by their origins in security studies, which focuses on threat assessment and militarization to meet threats. Throughout the literature, the concept of security, the ability to present a credible defense on territorial attacks, is not problematized. When security studies scholars analyze arms transfers, the assumption, whether implicit or explicit, is that

they are an integral part of national security, a right and obligation of the sovereign state.²

Realist and neo-realist scholars take the sovereign state as the starting point for their analysis of international systems. In this view, which sees states much like rational, autonomous, self-maximizing individuals in an anarchical, self-help system, state sovereignty is the ultimate authority over a given territory and people in the state (the internal dimension), with no higher authority outside said state (the external dimension) (Hinsley 1986). State form – the rational and sovereign state -- is a given within the assumptions of the field and thus largely unquestioned; indeed, in some works it takes on the immutable character of natural law (Waltz 1979). The state, as an institution, is largely independent of both economic and cultural forces, and protection of territorial integrity presents states with their overriding objective.

Thus the concept of national security as derived from international relations focuses on the ability of states to anticipate and react appropriately to threats to their sovereignty. While once a broad range of issues were on the national security studies agenda, such as educational attainment levels and trade patterns, these have now been taken up by other disciplines (primarily sociologists and economists) (Jepperson, Wendt and Katzenstein 1996) and dropped from the agenda of security studies in favor of such factors as arsenal size and conflict history. Thus, during the Cold War the definition of security

² See Held (Held 1989) for concise discussion of the origins and development of the concept and Pierson (Pierson 1996) for discussion of the rise of the sovereign state in its early, absolutist form.

narrowed such that only the use of force or the threat thereof (and in particular as framed by East-West tension) fell within the purview of security (or strategic) studies (Buzan, Waever and de Wilde 1998:98). At the same time, the arms patterns apparent in the Cold War era came to be taken as the norm (Laurance 1992), with little theorizing about the historical fluctuations of the trade, and the field even in today's post-Cold War circumstances relies upon these earlier assumptions about sovereignty, the state, and the arms trade. The result is a definition -- and a field of study -- focused on military preparedness and narrowly realist in its theoretical origins and analytical framework.

National Security and the World Arms Trade in the Twentieth Century

Until recent changes in the world arms market which accompany the changing relations between former Cold War adversaries, scholarly writing on the arms trade was filtered through the lens of the Cold War. A bi-polar system and the alliance-driven arms trading it was thought to encourage were seen as the norm (Laurance 1992). However, the arms market has historically fluctuated with world politics and the global economy, and even during the Cold War period the arms trade varied in its scope and intensity. The history of the arms trade in the twentieth century can be discussed in five distinct phases: (1) post-World War I – 1945; (II) 1945 – mid-1950s; (III) mid-1950s – 1970; (IV)

1970 – 1990; (V) 1990 – present.³ I begin the periodization with the end of World War I, because this moment marked a significant shift, as described below, in both public awareness of the arms trade and in its scope; prior to World War I, the system was a continuation of a late 19th-century *laissez-faire* period in which the trade was concentrated in the core and transacted largely by private merchants and dealers on behalf of states. The subsequent changes in the arms market roughly parallel shifts in the world system; the underlying epistemology of security studies, which ranges from anarchy to cooperative regimes, also moves in tandem with these world-systemic shifts, although little effort has previously been made to make this connection clear. A discussion of all three systems (of the arms trade, the world system, and of security studies) follows.

Arms, the World System, and Security

I: Post-World War I – 1945

Weapons trading patterns typical of the late 19th century persisted through the war years; the system was largely *laissez-faire* with a multinational arms industry characterized by a multi-polarity of suppliers (Harkavy 1994; Laurance 1992). During the inter-war years, the supply side of the arms market was relatively diffuse due to this multipolarity, and during this period, private, commercial sales continued to predominate over government deals

³ For accounts offering longer historical perspectives, see Krause (1992) who covers feudal Europe to the present; MacNeill (1982) who covers the period from 1000 a.d. to the present;

and military aid. At the same time, those sales transacted by governments had economic as opposed to political or military motivations. In these respects, the inter-war arms market was really an extension of an open pre-World War I system (Harkavy 1994). By the end of this period, however, suppliers' foreign policy goals began to impact arms transfers, as states tried to "create a revised international political system" (Laurance 1992:61); thus alliance-driven trading and trading with political and economic conditions became more common.

The international arms trade in this post-World War I period was characterized by nationalization of the defense industry in some countries (France) and increasing state controls on it in others (Britain, Germany, and the United States). In the immediate post-World War I period, with the horrors of the war fresh in the public mind, outrage against the arms trade and private profit from the manufacture and sales of weapons worked to rein in the trade.

During World War II, the United States increased production of armaments to unprecedented levels, and the trading that took place was structured along alliance lines. By the end of this period, efforts were being made to transfer weapons in accordance with foreign policy goals, and emerging political agendas eclipsed the laissez-faire nature of the market (Laurance 1992:66).

Sampson (1977) who covers the mid-19th century until the mid-1970s, and Laurance (1992) who covers 1930 to the present in great detail.

World systems theorists have also characterized this period. According to Wallerstein (1984), the pre-war years marked an era first of competitive expansion and then of new hegemony, in this case American hegemony. This American hegemony was consolidated through the long period of global unrest (including World Wars I and II) brought on by the struggle for control of the system as the United Kingdom's power declined. The world arms trade clearly mirrored this conception of competitive expansion prior to World War I, for the trade in this era was marked by its *laissez-faire* nature, as well as a shift from public to private manufacture. The pre-war era is what Arrighi and Silver (1999), paraphrasing Braudel, have called the autumn of British hegemony, and they too note systemic expansion – growing trade linkages and international finance activities -- prior to the onset of war. The war years represent a period of systemic – and hegemonic – crisis, from which emerges a new configuration, or configurations, of power. During these years, British control over the system declined, and major powers – Germany, the Soviet Union, the United States – competed for primacy. At the same time, the rules of the system – colonial networks of trade and control, supremacy at sea – were no longer functioning adequately, and a new hegemon would be required to lead the system into a new era of expansion and prosperity.

Much as the arms trade has ebbed and flowed, theoretical perspectives on national security have varied more or less simultaneously. McSweeney (1999) delineates four periods in security studies. The first of these, dating from the end of World War I up until the mid-1950s, emphasized a common

security of states deriving from interdependence and security of the international states system more generally. This approach, which has historic roots in Hugo Grotius' ideas on the need for international law upholding sovereignty and international cooperation ensuring peace for all (Held 1989), is informed by a long-standing liberal tradition which emphasizes cooperation and interdependence as opposed to anarchy. This conception was mirrored by the establishment of such international forums as the League of Nations, but the focus on cooperation and interdependence was to change radically with the onset of the Cold War. Much as the world was shocked by the violence and destruction of World War I into efforts to form international associations, scholarly writing on security came to describe less as a competitive than a cooperative system. The system itself went from one conducted largely without government intervention to one more closely monitored by states.

II: 1945 – Mid-1950s

The immediate post-war period saw massive U.S. economic aid to Europe through the Marshall Plan; decimated infrastructure left many states without an arms industry and most others unable to export the weapons they could produce. Arms transfers at this time were largely from the United States to the industrialized states of Western Europe. The Soviet Union bolstered its industries at home while France and the United Kingdom rebuilt their industries with American assistance. The United Kingdom, whose arms

industry emerged from the war in better shape than those in many other states, sold arms for profit where it could. In France, the Dassault aviation company, and Marcel Dassault himself, emerged as symbols of French achievement, and the French government encouraged and supported the firm in its development and marketing efforts (the aerospace industries of France, along with the United States and the Soviet Union, are discussed in greater detail in Chapter 3). The newly-formed (1949) North Atlantic Treaty Alliance⁴ meant that states felt some degree of pressure to standardize their equipment and thus prompted a demand for weapons, and the same was true for the Warsaw Treaty Organization (or Warsaw Pact)⁵. Standardization, or broad similarity of weapons systems, facilitates efficiency both on the battlefield and in production, and leading producers, in this case the United States, the United Kingdom, and France, viewed it as an opportunity to capture a larger share of the arms market. The super-powers of each bloc, the U.S. and the USSR, respectively, sent arms to member states to bolster their respective lines of defense. I present the world systems theorizing on this period at the end of the following section, to permit discussion of a longer time-span.

⁴ NATO's first members were Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the UK, and the US. Turkey and Greece joined in 1952; Greece (discussed in the following chapter) withdrew between 1974 and 1980. West Germany joined in 1955; in 1966 France withdrew from the military command though it continued membership in the alliance; and Spain joined (in a limited sense; see Chapter Five) in 1982.

⁵ The Warsaw Pact, formed in 1955 and dissolved in 1991, was made up of Albania (which withdrew in 1958), Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Romania, and the USSR.

III: Mid-1950s -- 1970

Starting in the mid-1950s and continuing until about 1970, the supplier population diversified, as did the semi-peripheral and peripheral recipient population. During the period 1951 to 1971, the value of sales of major conventional arms to the Third World was \$77 billion (constant 1985 U.S. dollars) (Brzoska and Ohlson 1987:1). With the Cold War waxing, both the U.S. and the USSR increased weapons exports to semi-peripheral and peripheral states, with sales to the industrialized states of Europe continuing. The bulk of *sales* were to the so-called developed world, in large part as a way of repatriating post-war development aid. The U.S., through its Military Assistance Program (MAP), sent arms to the developing world as a major component of aid packages. The Soviet Union also was sending arms as part of aid packages, and both states supplied arms with political and economic strings attached. Both decolonization and competition between the USA and the USSR for "control" of new states meant that weapons were sent in increasing numbers to Latin America, Africa, and Asia as new states were created and sought to form their own militaries. By the end of the 1950s, the United States and the Soviet Union were giving surplus equipment away to developing states in an attempt to bring them into their respective spheres of influence. The link, however, between arms and influence is a weak one, at best (Mullins 1987; Sampson 1977). Rather, "(t)ransfers seem more effective in winning immediate short-term concessions, such as base rights, than in building the donor's overall long-term influence over the recipient's policies

or remaking regional arms balances (Pearson 1994:54). Indeed, Anthony (1990:12) argues that the numerous factors impacting military production programs, such as total procurement cost, currency negotiations, efficiency demands, and state planning goals, mean that arms “exports do not represent a central position per se, but can be characterized as a secondary but important component of national security policy.” Though analysts, such as Anthony, now question the long-term effectiveness of the arms-for-influence strategy, states nonetheless actively exported arms as part of the foreign policy goals.

The European producers re-entered the arms market as significant producers, selling arms to the developing world to garner cash needed for their own, largely American, arms purchases. Both Kolodziej (1987) and Laurance (1992) describe a move from bi-polarity to multi-polarity in arms supply, starting in the late 1960s, for two primary reasons. First, there were new entrants on the supply side, including France, the United Kingdom, and Sweden, as European producers rebuilt and expanded their industries. Second, a number of buyer states sought to distance themselves from the super-power suppliers and thus reinforced the viability of the new suppliers.

At the same time, new states made explicit claims to “modern” statehood via, among other avenues, a modern military. A remark by Sylvanus Olympio, President of Togo, 1960-1966 (in Mullins 1987:1) is indicative of this feeling: “We cannot be an independent nation without an army of some sort.” Acquiring weapons from the industrialized world was

seen not only as a hallmark of the modern state, along with such other features as a constitution, a flag, and educational infrastructure, but as a link to economic development. Developing states sought to acquire military hardware as a means of progressing toward the western norm of statehood, and supplier states encouraged the implementation of current weapons as both a modernizing influence and an economic boon to all involved parties. While it is clear that new states felt pressure to have a military for reasons of territorial integrity and/or aggressive purposes, the springboard, or modernizing role, which many assigned to first military acquisitions and later to military industry cannot be overlooked, nor can the modernizationist thrust of this thinking.

However, in a comprehensive analysis of the relationship between military capability and economic development, Mullins (1987) finds that some of those states with the most sophisticated arsenals are also some of those with the lowest GNP per capita and economic growth rates. In other words, the predicted correlation between arming and "modernizing" -- between military capability (acquisitions, industry, and manpower) and development -- has not been borne out.

The period between the end of the World War II and about 1970 was one of tremendous change in the world system. According to Wallerstein (1984), this era was marked by a consolidation of economic and political leadership, followed by the spread of a hegemonic organizational ideology, in this case liberalism, or the opening of markets to freer flows of goods and

services. During this period, the United States led the system in a shift from a focus on colonial relations between core and center to one based on a belief in greater independence, self-determination and development – development as taught and practiced by Western states and institutions. The Truman doctrine on the one hand and such international institutions as the International Monetary Fund on the other exemplify these beliefs. For Arrighi and Silver (1999), the period marks the zenith of American hegemony, a time during which the United States led the system in a dramatic restructuring of political and economic relations, through the Bretton Woods system and the United Nations, as well as in “understanding” the direction the system would take. “The result of this energizing and organizing was a new expansion of world trade and production – the so-called Golden Age of Capitalism of the 1950s and 1960s” (Arrighi et al. 1999:88). The American dominance of world markets went hand in hand with the expansion of its military power; with its troops stationed on military bases throughout the world, America’s ability to project military power was unprecedented (Arrighi et al. 1999:94).

The shift to an arms-as-diplomacy agenda and American hegemony more generally in the mid-1950s corresponds to the second phase in security studies. This post-World War II period marks the zenith of American influence not only on the discipline but on the international states system (Arrighi and Silver 1999; Wallerstein 1984). From the mid-1950s until the early 1980s, security studies was among the most prestigious and well-funded field in American social sciences (McSweeney 1999), and McSweeney argues that it

was singularly isolated from academic discourse and challenge. During this second phase, security was seen to be a property of the state, and the state the key actor in a system of international anarchy. All states faced the same threats in the same anarchical environment, and all states responded – through military preparedness – in the same way (Waltz 1979) or faced destruction (Mearsheimer 1995). “Security in its ‘golden age’ of political science is a condition of the state, to be achieved by the state, through the instrumentality of state military power ... [with] military capabilities the primary variable relevant to its security” (McSweeney 1999:36-37).

Quantitative modeling of state security was employed in an effort to understand the “laws” of the international system, which were assumed to be as immutable as the “natural laws” of other scientific disciplines. During this time, the focus of security studies narrowed, so that considerations once thought important to a country’s overall well-being, such as educational attainment, rates of economic growth, and health indicators, were crowded out by a growing number of studies of military preparedness (Jepperson, Wendt and Katzenstein 1996). More notable, perhaps, is the way that the underlying assumptions of the field, competition and anarchy, mirrored the political climate of the day and yet were posited as immutable characteristics of the states system. This approach to national security was most comprehensively put forth with the publication, in 1979, of Kenneth Waltz’s *Theory of International Politics* (Waltz 1979). The crisis of American hegemony

that began in about 1970 altered not only the shape of the arms trade but also theorizing about it.

IV: 1970 -- 1990

By the end of the 1960s a number of factors signaled a shift in the global arms system from one marked by development and military aid as the medium of the trade to one increasingly dependent on the monetary aspect of the exchanges, along with changes in the geographic foci of the trade; Laurance (1992:99-101) summarizes six key reasons for these shifts in financing structure and geography of the trade. First, Europe had successfully reindustrialized; second, colonialism had officially come to an end; third, a number of alliance changes had occurred by this time, most notably China's 1959 break with the USSR and France's 1966 pullout from NATO's military chain of command; fourth, the presence of large trade imbalances in the core supplier states, not least of all the United States, meant that suppliers were increasingly looking to sell their military goods rather than send them as aid; fifth, oil price rises of the early 1970s translated into increased arms sales to the Middle East; and finally, the costs and sophistication of military systems began to rise dramatically, doubling and even tripling from one technology generation to the next. All of these factors meant that suppliers were increasingly seeking to sell arms. The USSR began to seek sources of currency after 1970 and found the arms trade to be one avenue for gaining it, but continued to supply the bulk of its arms as aid. The shift in the system was marked by an increase in

the trade, whether measured in dollar value, volume, or sophistication of systems transferred, a change in the ways that deals were conducted, and a geographic re-centering of the trade. Figures from military aerospace transfers are indicative of the growth of the trade: U.S. exports in 1972 totaled \$840 million; in 1973 they amounted to \$1.4 billion; and by 1974 the figure reached \$2.5 billion (Sampson 1977:271). This expansion in dollar value of the trade was a result of several factors. First, the U.S., along with other supplier states, began to sell arms in addition to transferring them as aid. Second, the supplier states all relaxed controls on the weapons technology available for export, so more advanced weapons were reaching the market than ever before. Finally, cash-rich countries, first in the Middle East and then in Asia, came to comprise a larger share of the recipient pool. These changes are described further in the discussion that follows.

The United States' loss in Vietnam and the rise in world oil prices, leading to large American trade imbalances, in the early part of the decade led to a shift from the U.S. government's Military Assistance Program (MAP) to the profitable Foreign Military Sales (FMS) program (Klare 1984; Sampson 1977).⁶ President Richard Nixon, in the wake of the American experience in Vietnam, implemented a policy of sending arms rather than troops abroad, with the dual goals of greater autonomy on the part of recipients and of arms

⁶ The profit margins on foreign sales (made artificially high by the Department of Defense cost-plus contract system and administrative overhead charges) are, in effect, icing on the cake of any given production run, making foreign sales not only more lucrative than trade, but even more profitable than sales at home. Indeed, "(a)s one company executive explained, '...when foreign orders are added to an existing run for the Air Force, they are pure gravy'"

serving as a proxy for an American presence. At the same time, states with the ability to pay for their arms placed orders for equipment ranging from advanced armored tanks to latest-generation fighter aircraft. This shift from gifts to sales gave recipient states more leverage and increasing sophistication when negotiating for weapons. Western Europe had successfully reindustrialized, and colonialism had, *de jure* if not *de facto*, come to an end. The emergence of new, post-colonial states continued to stimulate great demand for weaponry. These conditions combined to influence not only growth in U.S. sales, but sales from other major suppliers, including France, the USSR, and the United Kingdom. Furthermore, many states which had been the recipients of outdated U.S. or UK military equipment in the 1950s and 1960s began to seek replacement for those aging weapons (Brzoska and Ohlson 1987), turning not only to the generally eager-to-supply superpowers but to Western European states which had rebuilt their own industries and were looking to arms sales as a source of income and a way to offset their own purchases.

The greatest volume and highest-technology transfers were to the Middle East --an emerging and powerful recipient group with a surplus of petro-dollars -- and Western Europe, ensuring cash for suppliers needed by economic downturn. During the 1970s and early 1980s, the "Middle East was ... the major driving force behind both the expansion of the arms market ... and the changes in the structure of the arms market that occurred during this

(interview with officials at the McDonnell Douglas Company, speaking off-record, in Keller

period" (Brzoska and Ohlson 1987). Significant oil revenues, numerous regional conflicts, and super-power involvement in the region all drove these changes, and the emergence of the Middle East as the key recipient region facilitated the shift from aid to cash transfers. The importance of available cash, in turn, helped drive a supplier willingness to provide ever-more sophisticated weaponry.

Though in the late 1970s President Jimmy Carter attempted to rein in American arms sales, during the Reagan and Bush tenures in the White House, efforts were frequently made to use arms as foreign policy tools again (Halley 1978; Krause 1991; Pierre 1982). The United States government increased infrastructural and monetary support to agencies and firms engaged in arms sales abroad; in 1990, U.S. Assistant Secretary of State Lawrence Eagleburger instructed American embassies throughout the world to "get on board" and promote arms sales. The Soviet Union also frequently engaged in arms diplomacy during this period, but it, like the other suppliers, came to view its sophisticated weapons as an avenue for gaining hard currency. By the time Mikhael Gorbachev assumed presidency of the USSR in 1988, he claimed that, "we shall supply anyone who pays" (cited in Kortunov and Arbatov 1994:93). Economic concerns regarding arms transfers remained primary for the Western European states and especially France, so much so, in fact, that, "(f)or French planners, producing arms was an instrument of social and economic welfare" (Kolodziej 1979:2).

[1995:120]).

In the late 1970s and early 1980s, the arms trading system reached an interim phase characterized by slowed growth and high debt; by the mid-1980s the system was essentially a buyers' market marked by low growth rates in the core, generous offsets and other concessionary transfer terms, readily available financing, increased contract competition, increasing sophistication of systems traded, and enhanced buyer leverage. At the same time, an increasing number of states sought to develop indigenous arms industries, prompted by changing political alliances and the availability of sophisticated technology on the market (Harkavy 1994).

By the end of the period, sales to the Middle East began to taper and Asian states, whose "economic miracles" were generating economic successes at this time, emerged as importers of expensive weapons systems (Anthony 1992; Anthony 1994; Smith, personal correspondence, 2000). The period starting in about 1980 saw a renewing of tensions between the U.S. and the USSR, ending with the break-up of the Soviet Union in 1991. Transfers increasingly were negotiated as sales and loans packages, rather than as gifts and aid, and recipient states began to request and receive rights to build parts of the systems locally.

V: Current Trends

The years since the end of the Cold War have seen significant internationalization of the military industry (Keller 1995; Sköns and Wulf 1994), for a number of reasons. First, the changed political climate has made it

harder for states to erect political shields for their military industries against the more general forces of globalization. Thus the industries in key producer states, especially in Europe but also Canada and the United States, are increasing cooperation, coordination, and more recently, have begun merging. "The arms industry (like many others) is becoming more 'global' in production, in that the number of producers is becoming more concentrated, either through mergers, buyouts, or partnerships. ... Foreign sales as a form of internationalization in the arms industry have since the late 1980s been complemented by an increasing extent of international company acquisitions and cross-border interfirm cooperation" (Sköns and Wulf 1994:50). Increasing internationalization of the industry itself should not be taken as an indication that *acquisition* strategies are shifting from a national to an international or cooperative basis; despite industry consolidation, states still tend to think of acquisitions in terms of national need.

At the same time, arms are increasingly being produced with the export market in mind, although overall volume of sales has dropped; factors contributing to this reduction include "the declining ability of recipient countries to pay for arms; the end of several 'hot wars', the expansion of arms industries in some Third World countries which have traditionally imported arms and the natural procurement cycle of major weapons" (Anthony 1994:44). Arms deals are also becoming more closely integrated with other aspects of trade, so that, for example, McDonnell Douglas ends up marketing millions of dollars worth of Spanish shoes (discussed more below). The focal

points of arms trading have shifted in recent years, most notably away from the Middle East and North Africa to South and North East Asian countries, countries which also became increasingly involved with other types of trade with supplier states in the core.

American military assistance continues to taper: military assistance is below 40% of total U.S. arms exports (aid and sales), down from averages close to 50% of exports in earlier periods (Johnson 1994:112). Outright gifts of used equipment are on the rise (gifts differ from military aid in that they are not part of larger economic assistance packages which are put in place for several years at a time), due largely to arms-reduction treaty obligations. Similarly, weapons are moving via a filtering down of top-tier NATO equipment, particularly from Germany, to Europe's southern rim; Greece and Turkey in particular have received substantial second-hand arms shipments. Some of this equipment is surplus, and some of it has been cast off as a result of limits set in the START I negotiations (Anthony 1994).

Russia and former Soviet states are also expanding their trade in used equipment: Kortunov and Arbatov (1994) suggest that the used aircraft market could absorb up to 300 airplanes and 200 helicopters per year; potential customers include Afghanistan, Angola, Vietnam, Congo, Mozambique, Mongolia, Syria, Cuba, Guinea, Pakistan, Laos, Cambodia, South Africa, Egypt, Iran, India, South Korea, Taiwan, and Eastern European countries (Kortunov and Arbatov 1994:98). However, Russian military equipment, like Russia itself, no longer holds sway as it did just twenty years

ago, and the dominance of American military equipment parallels its at least temporary resurgence in systemic power.

The transfer of dual-use technology, or technology which has both commercial and military applications such as information processing and ceramic materials, is also on the rise, making the tracking of the arms trade – and arms control efforts – more difficult (Carus 1994). Dual-use technology has both military and non-military applications, and states can make a request for the technology for non-military purposes but easily transfer it to military ends once it is received. Changes in arsenals around the world are qualitative as well as quantitative, as the weapons systems traded grow increasingly sophisticated (Eyre and Suchman 1996).

The period beginning about 1970 is widely acknowledged as one marked by significant systemic transformation. Analysts across the spectrum argue, variously, that it is one of global crisis (Hobsbawm 1994), or of a clash of civilizations (Huntington 1993), or of hegemonic crisis (Arrighi 1994), and even the end of history (Fukuyama 1992). While for Hobsbawm and Arrighi, the transformation involved breakdowns and subsequent attempts at rebuilding the political and economic ordering of the states system, for Huntington and Fukuyama the crisis of the era was marked by the triumph of a Western, classical liberal ideology. Despite fundamental differences between these authors, they agree that the era was one of rapid global transformation.

Early in the period American weakness was made manifest by the collapse of the Bretton Woods system and its defeat in Vietnam. By 1980, a “second cold war” was emerging under the leadership of, principally, U.S. President Ronald Reagan, and this military build-up was accompanied by a wholesale restructuring of developing economies under the auspices of IMF-imposed structural adjustment programs (McMichael 1996). “In the 1980s, as the financialization of capital accelerated, observers began to point to a growing polarization of wealth both within states and between states, as the North-South gap also widened” (Silver and Slater 1999:211). By 1990, the system was marked by competitive expansion (Wallerstein 1984), as well as a bifurcation of economic power (in East Asia) and military power (in the United States) (Arrighi et al. 1999).

Correspondingly, by the early 1980s, the realist perspective on national security was increasingly the subject of scrutiny and re-evaluation, and theorizing of national security returned to its roots in cooperation and interdependence. Scholars paid increasing attention to rules of cooperation, or regimes, which arose through sustained interaction in the international system and which served to socialize its anarchical nature. This idea was developed further into the “democratic peace” thesis (see Gleditsch 1992), which argues that democracies do not make war on one another, and was then developed into notions of security regimes, in which state self-interest is prominent but subsumed to longer-term interests common to system participants. “The American provenance of most of the early literature on complex

interdependence suggests that it was not just the objective world which had changed, so much as the interests of the United States in the 1970s which forced the search for new policies to address a less controllable environment..."(McSweeney 1999:47). The work of Hedley Bull (1977) and Stephen Krasner (1983) typifies this neoliberal approach to international relations, and its application to security more specifically can be found in the work of Karl Deutsch (1955).

This work has, in turn, led to the new institutionalist response to the still-dominant realist paradigm, and the most sustained challenge has been mounted by a group of political scientists, known collectively as "constructivists", and sociologists, known as "new institutionalists", who focus on a systemic cultural drive behind the security process. Thus arming, along with a host of other state activities, is less preparation for war than it is enactment of the rituals of modern statehood, as prescribed by a global culture (the seminal work can be found in the 1996 volume edited by Peter Katzenstein). I will return to this literature after discussing realist theories of arms transfers.

More recently, not only security studies but international relations more broadly has come under criticism from a number of fronts. With the rise of "anti-positivist" theory in the social sciences, critical theorists, feminists, and post-modernists have all criticized security studies for its objectivist, realist, state-centered orientation (see the 1999 volume edited by Weldes, Laffey, Gusterson, and Duvall). These scholars argue for a shift from a materialist – in

this case, territory and weaponry – emphasis to a cognitive, cultural one. This approach to security tends to be based on identity-related factors, such as nationalism, or concerns for the sustainability of the earth and life on it, or ecological and biological (including weapons of mass destruction and issues such as poverty) security (Stoett 1999).

The preceding discussion demonstrates that the arms trade has changed in a number of ways, all consistent with changes in the larger global economy. While early in the century it was largely unregulated and in private hands, it has passed through phases of increased government regulation and now major restructuring. States have tried to use arms transfers as tools of both political and economic gain, and these motivations, too, have changed over time. The nature of the trade itself has changed: geographic foci shift, types of equipment available on the market change, and the ways that deals are conducted all have undergone a series of transformations. At the same time, thinking on arming and national security have changed, not just in step with changes in the nature of the arms trade but rather as a function of shifts at the level of the world political-economy. I turn now to a review of the theoretical contributions made by both realists and institutionalists to the very specific question of international arms transfers, and then turn to a discussion of world systems theory in a move to ground an understanding of arms transfers in a larger political-economy framework.

The Arming Imperative

A useful way to discuss the arms transfers literature is by levels of analysis, as do most of the studies in the field. Three levels emerge: sub-national, state-level, and systemic. The core body of literature on arms transfers, derived from security studies more broadly, focuses on rational, unified state action and geo-politics and cannot account for several factors. First of all, it downplays economic motivations that supplier states have in relation to their weapons transfers (all major supplier states were capitalist except the former Soviet Union though it nonetheless relied on arms transfers as an avenue to exchange goods on the world market and acquire convertible currency). The importance of the military-industrial complex and “military Keynesian”, or the use of the defense industry as an economy-regulating tool to stimulate production or absorb surplus labor, however, has long been noted in sociological analyses of the capitalist state, and those are mentioned below, also by levels of analysis.

Realist and capitalist-state perspectives share two additional weaknesses: neither moves effectively across levels of analysis, and neither captures what is coming to be recognized as a cultural component of transfers. After discussing theories by levels of analysis below, I turn to world systems theory to develop a view which begins to overcome these weaknesses.

Subnational-level theories

At the subnational level, theorists have argued that weapons acquisitions are the result of self-interested strategizing and bargaining of groups within the state (Adams 1982; also, see contributions in the 1992 volume edited by Kirby and see Mayer 1991). Arms transfer decisions, or decisions either to export or to import a given weapons system, are described as the result of factional interest and/or bureaucratic conflict. Within a supplier state, a number of actors influence which weapons system is exported, or whether the trade can proceed at all. In the United States, for example, industry lobby groups are powerfully represented in Washington, pressing for a liberal trading policy, while lobbyists for particular firms try to rally representatives around their own products (Lumpe and Donarksi 1998). Members of the Senate and the House of Representatives are inclined to support the export of programs or systems that would help jobs and capital to accrue in their home districts (Tirman 1997). Sampson (1977) argues that the arms trade is especially vulnerable to the influence of individuals and even to corruption: a few large firms competing for a small number of extremely valuable contracts combine with the secretive nature of the business to make individual influence-peddlers both powerful and endemic.

At the same time, legislators might oppose exports to a country or region, such as Pakistan, China, or the Middle East, for reasons related to their own political points of view. Countering this pressure are lobbying groups representing potential recipient states; Israel, for example, has a particularly

effective lobby. Finally, there are lobbies which oppose arms exports in whole or in part that also attempt to influence the arms transfer process.

Within the recipient state there are also numerous groups competing for their points of view to be translated into a particular acquisition decision. Branches of the armed forces (Army, Navy and, where a separate body exists, Air Force) all compete for their share of, in effect, the "weapons pie." Resources are invariably short, weapons are expensive, and forces must, therefore, lobby for what they perceive to be their own budgetary and weaponry needs. There is some evidence that military regimes tend to be more aggressive purchasers of military equipment, and Eyre (1997) finds support for what he terms the "Pinochet effect." That is, once a military government has been in power, the armed forces are often appeased in their demands for equipment with the hope of keeping them from retaking power. Thus, regime history and relations between the government and the military plausibly influence acquisitions decisions. Further, politicians and parties might prefer a given weapons system because of actual, perceived, or anticipated ties with the supplier. Finally, arms control lobbies are also active in recipient states.

The works of both Mills (1956) and Domhoff (1990) are detailed treatments of the nature of the American capitalist state, and both acknowledge the role that individuals in the military and the defense industry have in setting agendas and policy in government. Mills saw a "power elite" composed of members of the upper echelons of the corporate, the political,

and the military spheres of American society. These individuals, according to Mills, are the few who actually shape the course of American foreign and domestic policy, through their access and influence. Because of their common backgrounds and ties with those in the corporate and military elite, as well as the “revolving door” between these spheres, the political elite follow a course that benefits business, including the military, which is heavily dependent on state support.

Following Mills closely, Domhoff also argues for the existence of a group of individuals holding power in the capitalist state. Again, the state works in the interests of the dominant, or business, class, and again, the focus is on the ties and interaction between members of the elite in the U.S.. He sees the state as controlled by power industrialists and political elites who have common privileged class backgrounds. More recently, Lotchin (1992) has applied this framework on a local level to argue that Southern California’s economy historically has been shaped in large part by the actions of individual boosters lobbying the state for what he terms “war and society.” Individual capitalists, primarily in aerospace and shipbuilding, were successful in convincing the state to establish production in Southern California in the early 20th century, with long-term and significant impact on the region’s economy, effects which continue today.

Studies pitched at this level of analysis can go a long way towards explaining the struggles for power and goals of competing capitalist and labor

interests. They cannot, however, account for historic, regional, or systemic forces shaping preferences and decisions.

National-level theories

At the national, or state, level, push and pull factors are theorized to be at work in explaining the movement of arms from one state to another, and arms are tools of national interest for both suppliers and recipients. For supplier states, the most predominantly theorized motivation relates to the domestic arms industry. Supplier states feel pressure to transfer weapons to help rationalize, or bring down, their own per unit costs for a particular system. They also have sought transfers to maintain slowed production lines, or to keep them "warm," in times of production slow-downs. Often arms transfers involve efforts to redress balance of payments shortcomings. Theories offering these sorts of explanations are sometimes called "push" theories.

For recipients, there are analogous "pull" factors attributed to arming decisions at the state level. First is the claim that some states, especially new states, arm as a way to springboard into the "modern" world. Influenced by modernizationist ideas on development, a number of analysts stress the importance of a military for instilling Western institutions, discipline, and education (Weede 1983) and thereby, in the longer term, promoting growth.

Most often, national-level pull theories boil down to defense of territorial integrity, or national security narrowly defined. Arms are, in other words, acquired to meet the military needs of the recipient state. According to

this view, states assess their security situations and, based on the threat environments they perceive, acquire weapons systems and maintain the forces to use them accordingly (Pierre 1982). However, in contradistinction to each of the above, in his study of 46 post-colonial states, Mullins (1987) concludes that states arm less as a function of the security environment they face than their economic capabilities. Thus new states arm for any number of *ad hoc* reasons, and they do so within the strictures of their national economies; states with higher GNPs arm at higher levels than those with lower GNPs. While this may seem obvious, the more interesting finding of his work is that arming and development are inversely related: states with better GNP performance over time are those which arm at lower levels; despite widely-held views that arming can spur growth through industry development, Mullins found no relationship between military capability and economic growth.

At the national level, realists see military preparedness as the key to defense of sovereignty (Morgan 1985), or the ability a) to prevent incursions upon one's sovereignty, or b) to encroach upon the sovereignty of others. Further, realists stress the importance of the strategic security of states, using this concept as the basis for both theory and interpretation of arms transfers (Catrina 1994). Arms transfers, and being well-armed more generally, are therefore seen as crucial to state's national security interests *vis-a-vis* other states and thus play an important deterrent role and in the long run reduce tensions. Because being well-armed is considered a key component of

national security, these scholars tend to take an uncritical view of the arms trade.⁷

Not all studies focused on arms transfers exclude the great profitability of the industry. Sampson (1977), in a seminal, journalistic account of the international arms market, describes frequent collusion between firm representatives, agents or arms dealers, and individuals charged with acquisitions decisions and the profits that all parties make from the deals. Tirman (1997) brings Sampson's analysis up to date, describing the pressures that lobbyists apply on behalf of firms (in this case, the American helicopter manufacturer Sikorsky), both at home and abroad, and the involvement of the state at all levels in supporting what was, until the 1990s, a high-paying and thriving industry.

Political-economy theories note that the capitalist state relies on business for support, but at the same time firms also rely on the state for reproduction (Baran and Sweezy 1966; O'Connor 1973). This is especially true of military contractors, whose main clients are states. In describing this "military Keynesianism," they suggest that the structure of the capitalist state, particularly under monopoly capitalism, requires that the state enter into the economy and provide reproductive functions – welfare functions, or social expenses – in order to maintain the conditions of capitalism and the legitimacy of the capitalist system. Capitalism creates both surplus labor and surplus capital, and a key way that both can be absorbed back into the

⁷ This belief is reflected in the adage "si vis pacem, para bellum" (if you want peace, prepare

economy is through the military. The state's military can enlist surplus labor, and the state can attempt to stimulate growth – profits and jobs -- by investing in military-industrial firms. Thus arms exports, which are highly profitable for supplier states and firms, are one tool of capitalist state planning in supplier countries, both as a way to boost production and as a way to maintain employment. The underlying assumptions of this approach are very similar to those of Mills (1956) and Domhoff (1990), but the focus is on states as a discrete unit, as opposed to groups and individuals within the state.

Theories focusing on national-level action assume a rational and unitary state. While there is some acknowledgment of systemic forces, discussion of how these forces impacts states' security decisions is largely unexplored.

System-level theories

At the systemic level, I describe three theories – super-power manipulation, dependency, and technological determinism. The first of these is what Eyre and Suchman (1996) call the "superpower manipulation" perspective. At the global level, arms are described primarily as levers of power, used by core states (super-powers) as tools to gain strategic advantage. According to scholars who write from this point of view, the former superpower rivals, the United States and the Soviet Union, were engaged in a global struggle for influence and thus used arms transfers as extensions of foreign policy.

for war).

Superpower goals include, among other things, influence over certain specific decisions of recipient governments (Krause 1991; Mullins 1987; Pearson 1994) (although it is generally agreed that this leverage was limited, if it existed at all), access to basing and fly-over rights (Harkavy 1979), access to port or listening post facilities, covert military operations, overt military operations, support for a particular regime, or enhancing influence in some less tangible sense. Arms are, in this view, unilateral tools of power passed from the superpowers to their much less powerful client states, which at times are seen as nothing more than pawns of their suppliers.

Figure 2.1 illustrates this geo-political approach to security and arming. In this view, a global system of independent, sovereign states gives rise to geo-political and regional security environments. Based on the threats states perceive from these security environments, states arm to protect their territorial integrity. Domestic politics can influence the procurement decisions states make, but the primary pressures on states as national security is undertaken come from the international states system itself, along with the security environments it generates.

A subset of this literature, Neuman and Harkavy (1979) call the dependency perspective, describes military and economic "orders" of states which are seen as mutually reinforcing; arms transfers are seen as both a reflection and a reinforcement of the global capitalist system. Recipient states receive loans and offers of equipment perhaps not suited to their needs, and find themselves dependent upon seller states through these long-term military

loan packages. Often recipient states are characterized as mere pawns in larger balance-of-power struggles, unable to refuse both military equipment and demands for such producer-state privileges as military fly-over or naval basing rights. The perspective sees decisions and power as flowing out from the producers (core) to the recipients, particularly in the semi-periphery and the periphery.

Geopolitics scholars tend to see economic considerations -- strengthening trade ties, rationalizing R&D costs, keeping production lines "warm" and industrial employment high -- as unimportant or as a negligible outgrowth of politics (Blackaby 1983; Leitenberg and Ball 1983; Reppy 1983). Christian Catrina (1994:202) summarizes, "...arms purchases are neither motivated by economic interests nor designed to stimulate the economy," and concludes that the main concern of states when they transfer weapons is strictly military security. Yet a careful reading of accounts of actual decisions regarding arms transfers contradicts the view that states do not have economic motivations, and it is not at all clear that states enter into or emerge from arms transfer negotiations with clearly-defined security interests and goals.

O'Connor notes the usefulness of a strong military for protecting capitalist interests abroad, a point picked up by world systems scholars. Military power is important for maintaining dominant states' economic interests, or for opening up geographic regions for capitalist expansion. "(C)apitalist states have always tried to protect the capitalists who control them. States act to expand markets or to destroy barriers to market

competition when their own capitalists will benefit because they enjoy a competitive advantage” (Chase-Dunn 1989:36). A key tool of the protection is a strong military, which can convey either actual force or threats thereof effectively. Military intervention can be used as a way to protect or create new market opportunities, including new arms markets, giving impetus to core states to continue to develop their military industries and to non-core states to attempt to develop theirs as well, both for aggressive and defensive purposes.

The realist geopolitical approach is rife with problems: methodologically, it is both ahistorical and atheoretical and therefore has little predictive capability; it ignores state-level political and economic motivations for transfers by overemphasizing the geo-political; and, it assumes rationality when describing state behavior (Allison 1971). Regarding methodology, most studies of the arms trade are carried out with little serious linkage between theory and data. Further, many studies of the arms trade which do include both theoretical interpretation and data analysis do not rely on long-term, comparative and historical data or an in-depth analysis of case study relationships. Rather, the work focuses on current, year by year developments. The result is that such studies usually do not extend beyond description and post-hoc explanations of arms transfer patterns.

Nor does this view take sufficient account of recipients’ decision-making and the factors shaping them, particularly the ways in which states attempt to define themselves in a systemic context. It cannot, for example, shed sufficient light on the protracted political wrangling within the state,

particularly across regime changes, or the fact that states at times declare from the outset that their procurement efforts are "tests" of supplier loyalty, as did Pakistan during their first round of F-16 negotiations.

Furthermore, arms are treated as one-dimensional levers of power, moving out from producers to recipients in a largely uncontested pattern defined by geo-politics. This view cannot account satisfactorily for the ability of recipient states to acquire weapons on terms they deem favorable, or reverse leverage (Paul 1992), and still unproblematized in this view is why and how, given their involvement in the arms market, states actually acquire a *particular* weapons system. India negotiated for 8 years before making final decisions on their next-generation lightweight fighter aircraft (and in the end they chose three planes: one British-French, one French, and one Soviet). In doing so, they gained licensed and repair production rights and tremendous technological know-how, which they were able to apply to their own attempts at indigenous fighter development (the ill-fated LCA project). Greece negotiated for five years for its fighters, using U.S. bases and links between their Socialist government and France's to extract offsets worth over 60% of contract value from both the United States and France, respectively. (Greece turned down a deal offered by the German-Italian-British consortium Panavia worth 120% of contract value.) Spain successfully linked its bid to enter NATO and the European Economic Community (now the European Union) to its seven-year search for new fighter aircraft.

A third system-level interpretation involves analysis of the development and diffusion of technology (Krause 1992; MacNeill 1982). Core states make advances in technology, including armaments and warfare technology, often in response to a perceived threat or past war experience, and these advances then diffuse throughout the system in predictable patterns: first-tier suppliers develop leading technologies, which are then replicated, through capacity or knowledge transfers, and adapted by second-tier suppliers. Third-tier suppliers copy innovations and make weaponry, but do not develop indigenous design capabilities. Finally, weapons move to "strong customers" (those states which can put them to use) and "weak customers" (those states which cannot). According to Krause (Krause 1991; Krause 1992), first-tier suppliers pursue power, second-tier suppliers pursue wealth, and third-tier suppliers pursue "security," or victory in war. With its hypothesized links between supplier motivations and what is in effect a product life-cycle model, Krause's work goes a long way towards reconciling gaps between structural theory and empirical observation; however, he does little to situate or integrate the motives states have, especially recipient states, when they transfer -- acquire -- arms, especially the most expensive and prestigious systems. While he moves beyond the levels of analysis problems which many other studies face, integrating national- and systemic-level dynamics, Krause's work still assumes a rational, unified state and does not consider the possibility of a variety of system-level pressures on the state.

Work on the arms trade has thus yielded a large literature. However, a major shortcoming of the realist work on the arms trade is its limited nature: the three predominant views – sub-national, national, and systemic -- outlined above operate at one level of analysis (global, national, or sub-national). The three views presented above accept uncritically a realist interpretation of state-state interaction; in other words, states are seen as rational, autonomous actors *with clear and well-defined preferences, including security and military acquisitions preferences*. Each view does in fact offer useful propositions about arms transfers. Yet a decade into "the new world order," there is a widespread uneasiness with the entire literature: quite simply, it fails to explain the fact that the arms trade continues apace despite the demise of the bi-polar system which was said to its primary driver. There is a growing sense that the explanations offered do not present a complete picture of a complex phenomenon, failing to capture both systemic-economic and ideological aspects of the trade.

A number of scholars (Anthony 1990; Eyre and Suchman 1996; Kemp 1994; Pearson 1994) now suggest that arms are not -- and were not in the past -- transferred solely on the basis of their military usefulness, but rather on the basis of their "...prestige or the political value of ownership" (Carus 1994). In this view, weapons are symbols rather than merely military tools in the strictest sense: a loose consensus is forming that arms mean something beyond their tactical functions. But what is it that they symbolize? Theorizing based in realism, with its assumptions of rationality and systemic anarchy, is

inappropriate to the task, though a number of first starts in that direction have been made. States acquire them in order to enhance their own status, and as a result end up with sophisticated weaponry which they cannot maintain and operate (Carus 1994). States acquire major naval weapons systems in an effort to be recognized in world affairs and/or an effort to be recognized as regional powers (Anthony 1990). Pearson (1994) argues that weapons are symbols twice over: they represent technological advancement (a status symbol), and they signify the dangers of engaging the holder in armed conflict (a deterrent symbol). Finally, Kemp (1994) claims that weapons are symbols (indicators) of political relations between states as well as a tool to influence those relations. This view parallels recent work drawing on work dubbed "the new institutionalism" in sociology and constructivism in political science (see Brawley 1998 for a brief summary of the sub-fields of international relations), which argues that arms are acquired as part of the enactment by states of global state-building models. This work is an effort to introduce a subjective, cultural, component into what was long seen as the domain of "high" politics and is part of a growing body of literature, most closely associated with John Meyer and his co-authors John Boli, Francisco Ramirez, and George Thomas, which seeks to understand international relations in terms of a global culture. Its merits and weaknesses, particularly as they are present in work on national security, are discussed below.

The New Institutional Response: The State, National Security, and Arming

World Culture, the Constructed State, and National Security

The new institutional position developed by political scientists and sociologists interested in international relations sees global culture as a driving force behind state form and actions. Institutionalists seek to explain similarity (mimetic isomorphism) in state structure, constitutions, educational systems (Meyer and Rowan 1977), etc., across the globe given different local histories, cultures, and belief systems. The new institutionalists argue that the spread of Western culture (rationalization) is the primary determinant of both these similarities and the attendant emergence of a world polity (Boli and Thomas 1997; Meyer 1987; Meyer et al. 1997; Meyer and Rowan 1977). Ramirez (1987) argues that the ideas of the individual and the nation-state as an aggregation of individuals are key myths of Western culture. This culture, driven primarily by bureaucratic institutions, influences states to adopt processes (such as educational systems) that will offer legitimacy in the world community.

Following Meyer and his colleagues, these scholars argue that a global culture regarding the modern state constitutes state identity (Thomas et al. 1987). Taking the point further, Meyer et. al. (1997) argue that a rationalized world culture determines nation-states: their form, structures, institutions, goals constitutions, and agencies are all normatively ascribed. This culture is composed of institutions (such as sovereignty), norms (such as national

security), and identities (such as the modern state), which both create and define states as well as regulate their behavior, and it is described as highly rational and bureaucratic, with an emphasis on technical capability and similarity (Boli and Thomas 1997). Global culture constructs the characteristics of statehood. With its institutions, norms, and rules, global culture, via rationalization, defines the modern state.

A global culture impacts their domestic identities and thus their national security interests and policies in at least three ways. First, it enhances the survival likelihood of states, as in the case of international recognition of sovereignty shoring up weak African states (see also Krasner 1988). Second, changes in the global cultural environment can shift systemic notions of statehood. But the authors do not indicate either how or why changes in the global cultural environment might occur, or the origins of a global cultural environment. Third, across a system, local cultures can mediate the influences of global culture, generating differences in statehood (Jepperson, Wendt and Katzenstein 1996).

Jepperson, Wendt and Katzenstein (1996:34) also describe three mechanisms through which the global cultural environment can influence national-level security decisions. First and most straightforward, formal institutions, such as arms control agreements, can impact these decisions. Second, "world political culture", or "rules of sovereignty ... standardized social and political technologies ... (and) transnational political discourse carried by such international social movements as Amnesty International" can

influence states' security policies. Finally, in a nod to traditional realist claims, global alliances and animosities are postulated as playing a role in national-level decisions. Further, Jepperson, Wendt and Katzenstein argue that both domestic and global "environments ... most often norms", as well as state identities and changes in these identities, influence states' security policies (1996:54-63).

The new institutionalist perspective posits diffusion as the mechanism by which norms and symbols move throughout the global culture. Thus, an important point for institutionalist theorists to demonstrate is that a given norm or symbol moves – diffuses – across the system and is adopted by (a) a large number of states in (b) what is considered to be a short amount of time (both unspecified in the theory).

Applying these propositions to specific empirical questions, an emerging rich body of research focusing on security issues is making significant improvements to the early "world polity" work, which was largely concerned with establishing, through the demonstration of convergence, the validity of the institutionalist perspective. Zisk (1997) documents the importance of cultural norms in the decision-making of post-Soviet defense managers. Finnemore (1996b; 1996c) explores the near-global, nearly-simultaneous (a) acceptance by states of the efforts of the International Committee of the Red Cross/Red Crescent, (b) creation of national science bureaus, and (c) adoption of more progressive definitions of development (to include human well-being). Philpott (1997) charts changes in the

understanding of the idea of sovereignty over time. The most recent work from this perspective (see the edited volume by Boli and Thomas 1999) gives priority to international nongovernmental organizations (INGOs) as the primary bearers of world culture. And Dana Eyre (1997) convincingly demonstrates the global importance of weapons and militaries as symbols of sovereignty.

World Culture, National Security, and Arming

Eyre (1997; 1996) is the primary proponent of this view as it applies to weapons acquisitions. Arguing that weapons are symbols of the modern state, and that some weapons, such as jet aircraft and deep-water naval vessels, are more powerfully symbolic than others, he concludes that states acquire weapons systems at least in part as a response to global cultural pressures regarding what a "modern" state -- and military -- should look like. There are, he claims, normative pressures factoring into states' decisions to acquire advanced weaponry. Arguing that "militaries no longer build modern nations, but rather, the world political and social system builds modern nation-states, which in turn build modern militaries and procure modern weaponry" (Eyre and Suchman 1996:82), the authors conclude that states acquire modern weaponry, particularly high-prestige items such as jet aircraft, because these weapons symbolize modern statehood and are thus an attempt at state-building (see Figure 2.2). Pointing out the highly internationalized nature of the military community, they suggest two mechanisms by which the

norm of the modern military might spread: through the training of military officers in the United States, the Soviet Union, and China; and via an international defense literature, such as *Jane's Defence Weekly* and *Aviation Week and Space Technology* (112). While he also finds limited support for each of the conventional realist arguments presented in the previous section, Eyre concludes that there are also global cultural factors at play in recipient states' acquisitions decisions. He bases his conclusion on a demonstration of the range of states that acquire symbolic weapons and other forms of the modern military as well as the relatively short time period in which they do it, arguing that realism alone cannot explain a broad and rapid diffusion.

Figure 2.2 illustrates this perspective. The international system of states has a corresponding culture of global norms. States do perceive regional and geo-political security threats, as realism postulates, but in this model global norms, along with the security environments in which states are located, have a direct impact on their national security goals. The only mediating input, in this view, is local culture. Thus there is no predictive possibility for power, alliance, development goals, or other economic or political pressures on the state.

These works continue to focus primarily on convergence as explanation and fail to address what continue to be the key weaknesses of institutionalist theory: what is the genesis of norms, cultural institutions, and values, and how are they transmitted? In other words, are cultural factors a free-floating *geist*, or are they linked in some key ways to other large-scale systems, such as

capitalism? World culture is posited to have consolidated since the end of World War II, but this position leaves the perspective open to criticism on a number of fronts: What has driven this consolidation? Was there a cultural model at the global level prior to World War II? What are the links between world culture and other global systems, such as the world economy? Finally, the view lacks recognition of power relations between states and systems. The idea that norms diffuse and that states adopt them assumes away power relations and fails to specify local variation in the uptake of a global culture.

In regards to weapons transfers, Eyre's conclusion that weapons are symbolic and can, therefore, be acquired for reasons other than security in the narrow sense, or defense of territorial integrity, is plausible. Yet his account is far from complete. He fails to address three specific points, undermining his idea-driven approach. First, he does not address how other decisions and goals tied to weapons transfers, such as economic development and political alliance goals, are related to states' normative enactment behavior in any given weapons transfer. How can we account for the goals and rhetoric, primarily political inclusion and economic growth, so frequently attached to weapons transfers? In other words, what is it that states are really laying out as their national security goals when they transfer arms, and especially when they transfer in seemingly irrational ways, such as by acquiring similar systems simultaneously? Second, he does not incorporate any acknowledgment of power relations between states, and how they play into arms transfers. Third, there is no recognition of the fact that what states "talk about" when they talk

about national security is not static; global cultural norms are not immutable. One is left, finally, with the question of what drives world culture. In this dissertation I cannot address all the shortcomings of institutional international relations. However, I will focus on the weaknesses of Eyre's analysis, drawing upon world systems theory to do so.

None of these theories, those focused on the economic, the political, or the cultural, pays close attention to the efforts of states to import major weapons systems. Rather, they focus largely on suppliers. After all, supplier states and firms are seemingly the primary actors of the arms trade, with the ability in many respects to direct its nature and flow. Recipient states, by comparison, especially non-core states, can easily be cast as just so many bit players, each with its own defense needs but nonetheless dependent on its patrons for its major weapons systems. Indeed, the theories, where predictive, suggest a fairly standard dispersion pattern of weapons, whether it be based on alliance (geopolitics) or war experience (realist theories at the state level), the economic motivations and attendant pressure of suppliers (theories of the capitalist state), or culturally-driven motivations (institutionalist theory). An advantage of trying to map out an approach informed by world systems theory is that it not only allows for the incorporation of more than one level of analysis, but it can also accommodate more complex motivations based on its conception of interlocking logics of capitalism, the politics of the interstate system, and the cultural (or hegemonic) logic of the current world-system.

An approach informed by world systems theory acknowledges that the uptake of norms or symbols is based at least in part on the global hierarchy of wealth and power: the world-system. Theories discussed above lay out two key reasons states want to be well-armed: they want to be strong (territorially) and they want to look strong. But the ways in which they are able to define their own security and weapons needs, and translate those needs into ends, are mediated by national conceptions of national security and the constraints placed upon them by the global economy and their position in the hierarchy of economic and political power.

World Systems Theory on the State, National Security, and Arming

States and National Security in the World System

It is surprising that scholars working from a world systems perspective have not addressed national security and weapons transfers as an area of fruitful inquiry into the international political economy. This is perhaps due to several factors. First, major works in the field are concerned with explanation of the development and processes of capitalism and thus are sweeping historical analyses set at a global level (see, among others, Arrighi 1994; Chase-Dunn 1989; Wallerstein 1974). A number of these works do focus on the cyclical nature of warfare, the timing of warfare and other economic cycles, and the role of warfare in a world without an overarching political authority or system (see Chase-Dunn 1989; Goldstein 1985; Goldstein 1988; Modelski

and Thompson 1988), but they do not speak to the more specific questions of national security and arming.

Because of their analytical preferences for large-scale analyses of the *longue durée* which stress the importance of the system, or the primacy of the whole over the parts, scholars have overlooked the security of states or regions. While it may be true that national security in some literal sense is uncertain at best and patently impossible at worst in this nuclear (or even post-nuclear) era of tightly interconnected economic actors, in point of fact states still devote considerable resources to it. The questions of why states acquire the arms they do and how they construct their own conceptions of security given the systemic pressures that world systems theory outlines remain unanswered.

World-system theory sees a world integrated into a global capitalist economy, which is the primary "driver" of interstate relations, with geopolitical and cultural logics operating within the capitalist system. As an analysis of global capitalism, world-system theory sees a global hierarchy of states -- the core, the semi-periphery, and the periphery. Wallerstein (1974; 1979) argues that states have been incorporated into a capitalist world-economy with a geographic division of labor, and that their structural position in relation to other states determines such features as domestic state structure and opportunities for economic growth. According to this view, the capitalist economy -- the world-system -- is (a) truly global, and (b) *the primary*

determinant of the forms of other phenomena, including class relations, states, nations, and cultures (Wallerstein 1991).

Capitalism is maintained by a global political system, or a system of states exercising political power such that market forces are expanded and protected, balancing productive (economic) and political power (Chase-Dunn 1989:140). States thus find sovereignty and national security compulsory to the degree that a system of sovereign states -- with defined boundaries and populations -- facilitates competitive advantage, market protection, and population control.

An important but perhaps undertheorized component of world systems theory is the relationship between inequality, which world systems theory describes well, and power, which it deals with less thoroughly. Inequality, simply put, is a disparity; it is a situation in which one entity (in this case states) has more of a resource, commodity, or opportunity than do others. The study of inequality in the sociological tradition has largely focused on economic inequality, and within world systems studies on differences between core and non-core states and especially the exploitation of the latter by the former.⁸ Several influential studies have attempted to "map" the world-system using network analysis (Nemeth and Smith 1985; Smith and

⁸Gross national product or GNP per capita are two commonly used measures, and the GINI index (a measure between 0 and 1 indicating the degree of inequality within the set) and the GINI coefficient (a measure of dispersion) are also attempts to quantify global inequality. Richer (largely intrastate) measures include the physical quality of life index (or PQLI, a composite of infant mortality, life expectancy at age one and adult literacy) (Morris 1979), and the index of net social progress (or INSP, a measure comprising 41 such categories as health of the population, the status of women, political stability, and welfare efforts) (Estes 1984)} (see

White 1992; Snyder and Kick 1979). While the authors find some variation in the number, membership, and membership characteristics of strata or zones, they agree on the existence of those zones, maintained by unequal trade relations, and on the inherent *structural* inequality between them. Further, despite an upward mobility trend, Smith and White remind us that, "(c)ore and periphery are relative terms, not absolute" (Smith and White 1992:880, emphasis in the original).

While inequality implies power, power means something quite different. If inequality refers to a situation whereby one state has something, be it trade potential, wealth, military prowess or access to resources, in greater quantity/quality than another, it suggests a state of being. Power, on the other hand, is the ability of one entity (person, state, firm) to get another to act in accordance with its own preferences. The scope of power is however circumscribed and made possible by and even manifested through resource exploitation (Mann 1986), including material wealth and inequality therein, suggesting that power flows from material advantage and that it accrues to those states at the top of the capitalist hierarchy.

This understanding of the relationship between inequality and power is important in at least two regards. First, it provides a nuanced starting point for examining not only the development goals of core, semi-peripheral, and peripheral states, but also the complex ways in which national security and arms acquisitions might come to be coded as legitimate development

(Crowly et al. 1998) for a review and comparison of the literature in sociology and economics

strategies. Second, it acknowledges the role of interstate and intra-state power relations in shaping what are often described as state-level decisions. These points are described below and elaborated more fully in subsequent chapters.

Power

Recent contributions to the world systems literature have addressed the importance of a subjective component – in effect, ideological power -- in maintaining the world economy. Arrighi offers the following definition of hegemonic power: it is, he writes, the ability of a state not merely to dominate the system of sovereign states, but "to exercise functions of leadership and governance" (Arrighi 1994:27) over this system. The hegemonic state has, in his words, restructured the system of capitalism from which it derives its power following a period of systemic chaos. The hegemon's power rests on control over resources, primarily capital and military capability (coercion), as well as the ability to restructure the system such that other participants view it as acting in the general interest (Arrighi 1994). Hegemony thus involves a subjective component, which derives from the hegemon's structural position within the capitalist system. Arrighi argues that the United States has assumed a position of hegemonic power based on a particular configuration of the world capitalist and political systems. The current hegemony is marked by the internationalization of production, trade, and finance and the model of

on development and inequality).

the liberal, democratic state. Power relations, development, and weapons acquisitions are taken up in greater detail in Chapter Five.

Development, Technology, and Weapons

Only a small number of core states approach self-sufficiency in the production of major weapons systems: the United States, the former Soviet Union, France, the UK, Germany, and Sweden. Semi-peripheral states, even those with comparatively advanced military complexes, remain dependent on core states for the bulk of major weapons systems (this is true for such states as Poland, Brazil, India, Israel, and South Korea). As a rule seek, importing states seek to indigenize as much military technology as possible. Their goals are tri-partite: all can be said to aspire to greater self-sufficiency in terms of their own defense; all have expressed the view that the development of a defense industrial base is a key component of economic development more broadly construed; and all view some segment of the export market for weapons as a means of achieving hard currency, thereby offsetting some of their own military costs. Peripheral states received equipment from core and semi-peripheral states largely as a function of their colonial linkages and/or their alignment with one of the two super-power supplier states involved in struggles for influence of the post-colonial, post-World War II era. At the same time, a small number of non-core states have embarked on massive acquisitions programs at least in part to offset their stores of currency gained

from the oil trade (Nitzan and Bichler 1995), including Saudi Arabia, Kuwait, and the United Arab Emirates.

Keller (1995:116-118) outlines three preconditions for developing a military industry: first, a state must have the capability and infrastructure to absorb incoming sophisticated technology; second, a state must have access to the necessary advanced military technology of other states; finally, a state must have the political will to commit to a military industry. Few developing states are able to meet these criteria, so they license technology and enter into a range of co-production deals, often as part of overall development strategies.

Technology is increasingly regarded as central to change and development, and particularly as it helps to perpetuate macrostructural inequality. Following Smith, I refer to technology as not only “technical procedures and know-how” but also organizational, institutional, and managerial mechanisms (Smith 1997:735). In fact, as Smith points out, control of scientific knowledge and processes are a part of the global system and thus are indicative of “the hierarchic and exploitative dynamic endemic to it” (Smith 1997:736).

According to O’Hearn (1994), the key to economic growth lies in the ability of states to innovate technologically, as opposed merely to adapting technology innovated elsewhere. Increasingly, scholars are exploring the ways in which the technological capacity of states varies *systemically*, with core states controlling technological and marketing knowledge, and semi-peripheral and peripheral states being involved in production, even of

relatively sophisticated products such as automobiles, at points on a commodity chain which offer fewer opportunities for profit. Core states and firms, as a general rule, have increased abilities for greater R&D investment, educational spending and linkages, infrastructure, and institutional capacity, giving them a leg up in the development of technological capabilities. As Smith (1997:739) notes, “the most effective advanced centers of technological development are the result of a massive mobilization of human and material capital possible only through extensive cooperation between states and multinational firms, predominantly those based in advanced core states.” World-systems theory outlines technology and control of technology as a specific mechanism by which core firms and states continue to profit. A more nuanced model of the relationship between weaponry, technology and development is taken up in Chapter Six.

Building a World Systems Theory of Domestic Identity, National Security, and Arming

It is important to try to ground an approach to weapons transfers and national security in a world systems framework for a number of reasons. First, as was demonstrated in the earlier discussion of the chronology of the world arms trade, the world economy, and security studies, the three phenomena appear to move, with some lags, in tandem. Thus, a shift in the nature of world capitalism and the states system would be mirrored by changes not only in the arming system but also in the hegemonic understanding of what national

security is and scholarly writing on the topic. A world system perspective acknowledges that supplier states use military sales as economic tools and tools of diplomacy. However, it can also incorporate the importance of ideological factors – cultural pressures, in the language of the new institutionalists – driving, at least in part, states' decisions to acquire weapons. Second, by adopting a framework for approaching the international system that incorporates an ideological components of hegemony, as Arrighi's does, we can better understand the power dynamics driving and limiting the arms trade, as well as possible motivations for arming, particularly in anomalous cases (the methodological strategy for studying anomalies is outlined in Chapter 3). Third, by locating our understanding of arming within the context of a state's overall goals vis-à-vis the international community, we can explore the interrelationships between arming and other developmental goals. Finally, much as the more abstract systemic dynamics, such as power and inequality, shape arming trajectories, more concrete limitations to arming and development erected by the world system, such as the control of technology, are easily understood by adopting an international political economy framework.

In no state are weapons acquisition decisions strictly military: the great number of years – up to 15 in some cases – it takes to reach a procurement decision and the range of people, firms, agencies, and military branches involved make clear the multi-faceted process of weapons transfers. Further, the anomalies in predicted patterns undermine the idea of military or

economic rationality usually attached to such decisions. At the same time, the great variation in local uptake patterns and display of purported symbols, in this case fighter aircraft, suggests that institutional theory, with its emphasis on mimetic isomorphism and diffusion, is incomplete. Crucial to delimiting this variation in uptake strategies and their effectiveness is, I will argue, a multi-level conception of domestic identity, which drives the arming imperative.

In institutional theory, domestic identity is the result of global cultural pressures and local historical and cultural factors. Domestic identity, as it might be conceived in world systems theory, however, is primarily a product of a state's incorporation into the world capitalist economy and, secondarily, other normative pressures which might impact it. Thus, domestic identity is a function of a number of material factors, not merely ideas-driven, normative concerns. A state's domestic identity as it relates to national security decisions is a product of at least four factors (see Figure 2.1). First, a state's insertion into the global political economy -- both the world economy and geo-politics -- has a direct bearing on its own political and economic concerns and goals. Thus, core states, semi-peripheral states, and peripheral states will have varying goals and capabilities with regard to defense. A primary goal of all states in the world system is economic growth, and one visible manifestation of this goal is the development and use of advanced technology. Given the professed desire for defense technology and industry in a host of states, one aspect of this dissertation will focus on the variation across zones in access to and use of

advanced defense technology as represented by fighter aircraft. Second, the regional security environment clearly will impact any decisions or goals falling under the rubric of national security. Finally, the global political economy will influence a state's identity indirectly through its impact on global norms, including national security, as constructed by the hegemonic ordering of states. Any given state's definition of national security -- and its corresponding compulsion to arm -- will be the product of not only its own threat assessment, but also its structural position in the world political and economic systems, as well as a more generalized global normative pressure regarding the sovereign state and domestic, identity-driven concerns. It follows that as states' identities within the states system change, so will their definitions of national security shift.

Initially, then, I want to propose the following broad argument: the acquisition process for high-technology weapons comes to be defined not by security needs based strictly on threat assessment, as realists argue, but is influenced in part by a global culture regarding the sovereign state, as posited by the new institutionalists. This global culture, in turn, is shaped by, exercised through, and constrained by the world economy, as world systems theory suggests. Any given state's definition of national security will be the product of not only global normative pressure regarding the sovereign state but domestic, identity-driven concerns more broadly conceived. A full understanding of transfers includes a specification of a) supplier's economic and geo-political motivations (these factors determine, in effect, the supply side

of the market, or which planes are even available for consideration), b) an elaboration of the ways that recipient states perceive and define security (domestic identity), including development goals and security rhetoric, and c) the ways in which they are able to negotiate a deal which conforms to that definition (reverse leverage), or power relations in the world system.

Propositions for Developing the Theory

Previous work on the subject, drawing on the tenets of realism, fails to problematize the choices states make when they arm, assuming a simple relationship between political alliances, and/or war experience, and weapons transfers. The arms trade literature argues that, based on assessments of the security threats they face, states either produce their aircraft indigenously, or they negotiate to receive them from their military allies.

However, as described above, such thinking overlooks recipients' domestic security and sovereignty assessments, or security considerations broadly construed. Only a handful of states have aerospace industries capable of producing fighter aircraft. While many states do receive weapons from allies, and others define their security in part by war experience or other regional threats, in fact, states have a choice when it comes to the acquisition of fighter planes, and they exercise it in ways that the realist position would find anomalistic or irrational.

The realist position argues that the closer an ally and a supplier, the more likely that ally is to receive cutting-edge military technology: a) early in

its life span, and b) on generous terms (Kemp 1994). If this is the case, we can expect to see transfers of the F-16 and the MiG 23/27 to political allies (NATO or Warsaw Pact states, respectively) of the supplier before transfers to other states take place. Specifically, in the first five years of each of these planes being on the market, if this view is correct, the planes should in a majority of cases go to these allies. The French plane, on the other hand, will be most likely to go to the states that could not acquire one of the other planes, most likely, though not exclusively, for reasons of international approbation, as in the case of South Africa. Further, the traditional arms transfer/geopolitical view suggests that states acquire arms in the face of perceived military threat, or encroachment upon their territorial integrity (sovereignty), and so war experience in the three, five, and ten years prior to the order date of the fighter plane(s) will be tested for significance. The realist perspective would predict that states recently at war would be more likely to acquire arms than those without a recent history of war.

An institutional perspective suggests the acquisitions process (if weapons are a symbol) occurs not in stages, but in waves across the system. As norms regarding a capable military and a sovereign secure state spread, states will alter their security definitions regardless of the threat environment they face, and as particular weapons systems are deemed symbolic of the modern state, they will be acquired. If this perspective holds, states will adopt planes within a short time frame, with predictable patterns based on alliance. Little variation in these factors would be expected, and the acquisitions

programs could as easily be singular, isolated decisions as parts of strategic, contested, and goal-laden development agendas.

An approach informed by world systems theory, however, would argue from at least two levels of analysis. At the national level, supplier and recipients likely have divergent motivations. Suppliers jockey for arms sales abroad in order to reap the profits at home, while recipient states have a range of goals, including defense and development, that they attach to major weapons systems acquisitions. From a systemic level of analysis, states alter their security definitions -- and thus their acquisitions preferences and styles -- in particular ways based on changes in the world economy. Building on the institutionalist view that ideas matter and that cultural factors such as the prestige accorded particular weapons systems operate to help "define" states' security interests and thereby influence major procurement decisions, I will argue that national security can be coded or scripted to mean a number of things and, further, that the definition of national security has evolved from what was essentially a defensive or military one to one which includes development of productive capability and/or political and economic linkages.

Why, then, do some states acquire a given major weapons system, or in the cases examined here, more than one system of similar capabilities? Preliminary analysis indicates that states are likely to attach additional goals to high-prestige acquisitions, particularly when those goals are high-profile, expensive, or controversial. These goals are of two types. The first type can be called developmental and includes a state's efforts to boost its own industrial

capacity, whether it be defense industry, high-tech industry, or economic activity more generally. The second type of goal can be called political community and describes a state's efforts to define itself either as a member of a particular alliance, whether formal (such as the European Union) or less formal (such as "friends of the United States) *or* as outside a given community. Because some weapons are highly symbolic, and because "national security" is deemed an inviolable right of all sovereign states, states can piggy-back other, perhaps more controversial, goals onto acquisitions programs by calling them security matters. Most simply put, states have goals in addition to security as narrowly defined, and those goals change as a function of both the state's insertion into the global political economy and changes in that global political economy itself.

Indicative of these shifts in security goals, major changes in the arms trade at the systemic level have come in the sophistication of weapons traded and the ways in which these deals are done (Keller 1995; Krause 1994; Laurance 1992). This suggests that arms might increasingly be traded much like other high-technology commodities; looking at these shifts and how states take advantage of them and their own geo-strategic particulars offers insight into how they make the deals they do. The trade in high-performance aircraft, for example, prior to the 1970s was in early generation or lower-tech export versions (F-86, F-104, MiG-19); by the mid-1970s top-of-the-line equipment, which was often simultaneously entering service with the producer's forces, was moving around the world. At the same time, transfers

increasingly came to be conducted through government sales programs, such as the United States' Foreign Military Sales program, rather than through assistance or as give-aways, and dramatic shifts in the technology transfer and financing of deals have occurred. While early in the period little technology transfer was evident, later in the period states were bargaining successfully for licensed co-production, offsets, and attractive credit packages. States used reverse leverage to negotiate these deals, and the fact that such arrangements are more common later in the period suggests changes in states' preferences, willingness, and abilities in negotiating them. In these cases, it becomes important to use archival material to explore the content of, and participants in, the debates surrounding the acquisitions process. The period 1970-1990 is crucial for not only did it see changes in the structure of the global economy and the political "ordering" of states, it also saw shifts in ideas about what it means to be a secure and sovereign state. While early in the period a strong military was a key component of sovereignty, later in the period integration into the world economy was perceived as necessary to "modern" statehood. Using accounts from local and international media, I examine the debates surrounding each acquisition in the potential recipient state to document the types of goals and changes in the definition of national security I describe above.

In semi-peripheral recipient states the acquisitions process itself is often cast in terms of state-building and sovereignty-consolidation. In these cases, states negotiate over an extended period and aren't particularly loyal to a

supplier, suggesting that they seek to enhance political ties (e.g., Spain's bid for the EEC/EU) and secure economic benefits, either industry-specific (India, Greece) or more broadly construed (Spain). Recipient states are not pawns in a game of super-power manipulation, as realists suggest, nor have they ever been; rather, they actively define national security and negotiate for weapons acquisitions accordingly. This is illustrated by looking at the degree to which states outside military alliances (NATO and the Warsaw Pact) play suppliers against one another and can be tested by exploring the strength of supplier-recipient ties over time and through an analysis of the ways that recipient states go about bargaining for planes, what they get out of the deals, the conditions attached to the deal by suppliers and recipients alike, and the uses to which the aircraft are put upon receipt, as well as exploring whether membership in a security bloc ensured access to military goods and whether membership provided the recipient with favorable terms.

Conclusion

Each perspective has important insights into the phenomenon of arms transfers, and predictions of each are borne out in varying degrees. States do have broad military requirements. Certain planes both fulfill their requirements and are symbolic. States use specific leveraging points to get what they want, and most of them get something. The planes are not imposed and passively accepted: behind every final acquisition decision lies great deal of largely untheorized negotiation, contestation and leveraging, suggesting a

greater power of the second tier. The planes and the arrangements themselves are tools of states' national security and domestic identity goals. They are tools states use in identity construction, and that domestic identity includes symbolic, military, and political and economic goals. The supplier must have an interest in the state or region congruent with its strategic goals, the state or a group thereof must successfully identify non-defense goals as key to national security, and the deal must meet some of these non-defense goals. Fighter aircraft, though of course tactical, can become the symbolic currency of the sovereign and secure state as well as powerful tools of integration into the modern world economy. I turn in the next chapter to an overview of the dissertation's methodology and data sources.

CHAPTER THREE

RESEARCH METHODOLOGY AND DATA

This chapter describes the data and analytical strategies employed in the dissertation to evaluate the hypotheses generated by the theoretical approaches outlined in the previous chapter. First, I describe previous methodological approaches to studies of national security and the arms trade, and comment on their shortcomings. Then I outline the statistical tests performed in the following chapter, elaborate data sources and measurement, and explain the analytical strategies and goals of the case study chapters.

Existing studies of the arms trade fall into three types. First, a number of important works are case studies, either of particular industries on a global scale, such as the naval arms trade (Anthony 1990), defense industries in particular states, for example France (Kolodziej 1987) or a collection of states (Todd 1988; Wulf 1993), or one or a cluster of countries, such as India and Pakistan (Anthony 1992; Smith 1994). The shortcoming of these case studies is a failure to make theoretical linkages to general questions about patterns of interstate relations (Anthony's [1990] study on the naval arms trade is an important exception).

Second, several influential studies of the arms trade focus on aggregated trading patterns across the system or levels of military expenditure (Klare 1984; Krause 1992; Laurance 1992; Mullins 1987). These works, which focus on statistical modeling, lose any sense of state-level processes and fail to

elaborate beyond a description of large-scale processes. Like the case studies, they are often either atheoretical or implicitly assume realist processes to be at work, processes which remain unexplored in detail.

Third, the defense industry or a military-industrial complex is often in the background in studies of political economy, most often those critical of contemporary capitalism (Domhoff 1990; Mills 1956; O'Connor 1973). These works highlight the profit- and power-seeking of the defense industry, generally in the United States, but do little to explain either long-term linkages between the defense industry and capitalism as a system, or to explicate recipients' security and development goals in light of arms acquisitions.

Finally, the institutionalist studies of national security carried out in recent years either focus on elaborating a theoretical position with little reference to data (Jepperson, Wendt and Katzenstein 1996) or rely on a correlation between timing and arming to assume system-wide diffusion of symbols (Eyre 1997; Eyre and Suchman 1996).

This study will attempt to move beyond the shortcomings of previous work by combining statistical analyses of a particular weapons system in a well-defined population with a series of case studies. In doing so, I hope to offer a more comprehensive and theoretically nuanced study of the weapons trade and development in the semi-periphery. These methodological approaches are detailed below.

Methodology

Quantitative Analysis

This dissertation employs two broad analytic strategies. In Chapter Four, I test a number of hypotheses generated by the arms transfers literature using chi-square analysis. Chi-square tests are useful for determining the strength of a relationship between two categorical-level variables, where one exists.

Dependent variables in these tests are plane model received. These tests will help to assess the strength of the relationship, where one exists, between the planes states choose, on the one hand, and recent war experience and military alliance, on the other.

Population of States in the Study

Statistical tests are conducted on those states which either acquired one of the three planes (American F-16, Soviet MiG-23/27, and French Mirage F-1) or whose negotiations are known to have reached an advanced stage. For purposes of this study, I include those instances of negotiations which have moved beyond a general offer and assessment of a particular aircraft to actual discussions of price, component specifications, and delivery schedule. This strategy will assess the validity of the current thinking on arms transfers for the questions of interest in this study: why do states acquire a particular weapons system, how do they do it, and why might they acquire more than one?

Qualitative Analysis

The bulk of the dissertation consists of three historical national-level case studies charting the relationship of power relations and national security in the world system , and one longer case study focusing on the relationship between development, technology, and arming strategies. This portion of the research focuses on the historical political and economic ties between buyers and sellers, and the analysis uses two complementary approaches: an analysis of anomalies (Paige 1999) to aid in explanation-building (Yin 1994), or a stipulation of causal links developed by moving between theory and data. This study's methodology draws on recent comparative-historical works which chart the course between meta-narrative on the one hand and narrative conjunctural causation on the other. I strive in this study for what Paige (Paige 1999) terms "historical conditional theory," or a causal explanation which moves beyond the historical specifics of a case and is expected to hold true in specified circumstances. As do Seidman, Kimeldorf, and Gocek (see Paige 1999 for methodological overviews of each of these works), I choose not typical "cases" but anomalies. As Paige, summarizing Burawoy, notes, "the recognition and resolution of anomalies is the way in which a research program progresses" in that it can both disprove one theory while bolstering confidence in another (798). This recognition is similar to that of Bradshaw and Wallace (1991), who note that cases help to explain theory when they partially support it *or deviate from it* by extending general arguments. Anomalies both derive from existing theoretical frameworks and have the

capability to provide historical causal principles affecting key outcomes by answering questions current theory cannot. Thus the four states chosen for study here are those states which do not conform to expected patterns of weapons acquisition as expected by realist or world-polity institutionalist security theory *and* which vary their acquisitions outcomes in similar ways.

Case Selection

In the historical and case study portion of the dissertation, I hope to elaborate the decision-making process, as well as constraints states face and the tools they use, for high-technology, high-prestige weapons. For the purposes of this study, theoretically anomalous and thus important cases are those states that fly or negotiated to receive more than one of the planes under study, since they offer an opportunity to explore multiple goals recipients might have when acquiring weaponry. Those recipients are listed in Table 3.1. Of these, Iraq, Libya, Morocco, and Iran must be eliminated as possible case studies due to extreme data limitations. When the data for this study were initially collected, Jordan had not yet acquired the F-16, weakening it as a possible case. Egypt, Greece, Spain, India and Pakistan thus remain as possible cases to analyze. Of these five, Egypt's pattern is in fact fairly easily explained by the geo-political perspective, and it will be discussed further below. The remaining four -- Greece and Spain, Pakistan and India -- are, on the face of it, not easily explained by current theory. Extensive data are available about each case.

A number of explanations for the pattern are possible, based on the arms transfer literature discussed in Chapter Three; bureaucratic pressures could result in military overspending, or in an inappropriate or irrational setting of defense priorities. A regime change or shifting alliances at the geopolitical level could prompt a switch in suppliers. Or, as the institutionalists argue, states acquire multiple systems as symbols, or because it is somehow "expected" that modern states be well-armed. Or, perhaps, as I will argue, states are increasingly constructing a broader definition of national security than security analysts have allowed for in their thinking: states link other state-building goals -- political community and development goals -- to prestigious national security projects, which are difficult to contest due to their highly symbolic nature -- to further a broad security- and ultimately sovereignty-enhancing agenda. And at least anecdotally, recipient states clearly attach symbolic importance to the acquisition of front-line aircraft: regarding Thailand's mid-1980s bid for the American F-16, the periodical *Defense and Foreign Affairs* (1984g) notes that, "the Thais who favor the purchase have argued that other US friends such as Venezuela, South Korea, and Pakistan have been able to buy the F-16, and that Thailand should merit similar treatment."

More emphasis will be placed on exploring the buyers' decision-making processes than vice-versa. Factors include world-system position, gross national product per capita, formal political affiliation, regime type, military expenditures per capita, aircraft expenditures as a percent of total

military expenditures, and of course, aircraft type. Cases I will describe are, in Chapter Five, Pakistan, Spain, and Greece, and, in Chapter Six, India. A few specific questions follow.⁹

India and Pakistan, which have been involved in both regional and systemic power struggles, are especially interesting cases. Pakistan flies the F-16; however, it was involved with France in negotiations to produce under license the Mirage F-1. These talks eventually failed; however, Pakistan has a long history of receiving weapons (including, among other things, fighter aircraft) from France, the United States, and China. Though Pakistan took delivery of its first order of F-16s, its second order was embargoed under the Symington Amendment. India has produced over 200 MiG 27s (the ground attack version of the MiG 23) under license; it was among the first states to receive the MiG 23 (India began taking delivery before all Warsaw Pact states except the German Democratic Republic). Yet India also gave serious consideration to purchasing the French fighter instead and has received other French, American, and British aircraft. Although its predominant supplier of weapons has since 1971 been the USSR, it has long bought military equipment from other Warsaw Pact states as well as the UK, France, and other Western European suppliers.

Greece flies both American (the F-16) and French (the Mirage F-1) planes; it has received weapons from a range of Western suppliers. Spain

⁹ Sources: SIPRI Arms Transfers database; U.S. Arms Control and Disarmament Agency, World Military Expenditures and Arms Transfers, 1991-1992, in Harkavy, Robert E., 1994.

flies only the Mirage F-1, but was simultaneously involved in the mid-1970s in negotiations for the F-16, which eventually fell through, and the Mirage F-1. Until the time of Franco's death Spain imported the majority of its weapons from the US; however, in recent years, Spain, like Greece, has received weapons from numerous Western suppliers. Both states occupy positions in Europe's southern periphery and are NATO members, though Spain joined only in 1982 and remained until 1997 outside NATO's allied military command structure and Greece withdrew from the military command structure between 1974 and 1980. What motivated Greece to invest in the F-16 less than a decade after taking delivery of its F-1s? What caused Spain to choose one plane over the other, or perhaps of more interest, why would they consider the F-16 just four years after acquiring the Mirage F-1 and six years before joining NATO? What were the effects of entering NATO in 1982 and the EEC/EU in 1986 on Spain's acquisitions? Did its Francoist past influence policy-makers as they developed Spain's armed forces?

Aside from their odd fighter planes acquisitions, the four states in the case study chapters bear little similarity on a range of indicators used as variables in the quantitative portion of the study. For example, military expenditures (as a percent of GDP) range from the low end of the spectrum to the high. Spain's military expenditures were the lowest, ranging from 1.6% (in 1970, thus providing a counter-example to the popular perception that authoritarian regimes are characterized by higher defense spending than

"The Changing International System and the Arms Trade." in The Annals of the American

democracies) to 2.4% (1985) and back to 1.7% (1993). India exhibited the next-lowest military expenditures, 3.0% in 1970 rising to 3.1% in 1975 and dropping slightly by 1993 to 2.7%. Pakistan and Greece had markedly higher military expenditures, with Greece's ranging from a low of 4.8% in 1970, climbing to 7.0% in 1985 and dropping off to 5.5% in 1993. Pakistan's military expenditures were the highest of these cases study states; in 1970 its military expenditures were 6.1% of GDP; this figure dropped slightly for the next two time points, 5.9% in 1975 and 5.7% in 1980, and then climbed to 7.1% in 1985 before dropping to 6.8% in 1990 and 1993. These latter two cases lend support to the theory that authoritarian or military regimes spend more heavily on defense than their democratic counterparts, but clearly these figures in and of themselves do not represent a pattern or answer questions regarding particular weapons acquisitions.

Other variables are equally confounding. Greece and Spain, European states forging strong ties to the European alliances, were late receivers of their American aircraft but relatively early recipients of the French aircraft. Spain first took deliveries of its Mirage F-1s four years after they were available, but didn't receive F-18s until almost ten years after they began to be traded. Greece received its Mirage F-1s four years after they entered the international market, as did Spain, and its F-16s fourteen years after it entered the international market. India took delivery of its MiG-23s seven years after their initial entrance to the market. While the lag time is greater than for the

Mirages, India was among the first states both to receive the MiG-23 and the first to produce the MiG-27 under license. Pakistan received its only batch of F-16s beginning in 1983, eight years after its entry into the international market.

War experience shows little effect on the acquisitions of the case study states. According to Kohn's *Dictionary of Wars* (1986) Spain was at war 3, 5 and 10 years prior to its F-18 deal (because of the domestic conflict in the Basque region), but not prior to the F-1 deal. Greece, on the other hand, was not at war in any of the 10 years preceding the F-16/Mirage-2000 deals, but it was at war just prior to the F-1 deal (due to civil strife and the coups in that country, and the experience in Cyprus). Pakistan was not at war in the 5 years before receiving the F-16, but was (with India) 10 years prior to the acquisition. India, likewise, was not at war in any of the 5 years before acquiring the MiG, but was 10 years earlier.

Finally, there is some small variation in world system position among the recipients, using a categorization developed by Smith and White (1992), which delineates 5 blocks of states (where block 1 corresponds to the core, blocks 2 and 3 correspond to semi-periphery 1 and 2, and blocks 4 and 5 correspond to periphery 1 and 2). Pakistan and India are coded as block 3, or semi-periphery 2 in 1970, and India remains in this block in 1980, while Pakistan slides into 4, or periphery 1. Spain is in block 2, or semi-periphery 1, in both time periods (1970 and 1980), while Greece moves up from block 3 (semi-periphery 2) to block 2 (semi-periphery 1) between 1970 and 1980. All

four states fall in semi-peripheral categories throughout the study, although there are clear differences between them. The two European states have higher incomes per capita and more developed industrial infrastructures, for example, than do the two South Asian states.

All four states described above share several features making them appropriate for inclusion in this research. First of all, all states negotiated for aircraft from more than one supplier, thus complicating their arsenals and perhaps relations with their suppliers. None was technically at war, although tensions, particularly between Pakistan and India, and between Greece and its neighbor, Turkey, were never far from the surface. All states were, between 1970 and 1990, in a state of rapid change, both in terms of their domestic politics and economies and in terms of their relations with their political allies and economic partners. These points will be elaborated in the case study chapters.

The Fighter Planes

Fighter planes are a unique commodity in that it is possible to trace the sale of virtually every plane actually produced. The F-16, the Mirage F-1, and the MiG 23/27 represent a generation of fighter aircraft in a particular class, the lightweight fighter. The planes range from some 35,715 lbs (Mirage F-1C) to 37,500 lbs (F-16C) to 41,670 lbs (MiG-23MF), and have top speeds ranging from 1350 mph (F-16C) to 1450 mph (Mirage F-1C) to 1553 mph (MiG-23MF) (Austin 1985). These three planes are highly comparable in terms of

capabilities; they were at times in competition with one another for markets. While there were substitutes available which were capable of delivering roughly the same firepower or flying similar missions, these three planes represent cutting-edge technology of an era, and symbolically there were no substitutes for them until the late-1980s. Transfers of this generation of fighter began in the early 1970s and will be traced from then up to the present in this study.

The American F-16

After a competition among five defense contractors in the early 1970s for a next-generation, multi-functional light combat aircraft, contracts were let for two prototypes, one to General Dynamics and one to Northrop, the YF-16 and the YF-17, respectively. The Navy and the Air Force were initially encouraged to choose the same plane, but neither force wanted to be hemmed into a decision by the other. Each force had its own requirements for the aircraft (most notably, Navy aircraft are heavier due to structural reinforcements needed to counter the tremendous pressures they see when landing on the tight decks of aircraft carriers). The Air Force chose the lighter of the two prototypes, GD's YF-16, and the F-16 contract was awarded to General Dynamics in 1975.¹⁰ Through later contract funding,

¹⁰ In the past few years General Dynamics has sold its military divisions, and in December 1992 Lockheed bought GD's Tactical Military Aircraft division for \$1.525 billion in cash, assuming production of the F-16. Lockheed has subsequently acquired Martin Marietta, and the company is now known as Lockheed Martin; after fierce restructuring in the industry,

the Navy chose Northrop's YF-17; Northrop had teamed with McDonnell Douglas earlier in the competition, as they had no history of providing planes to US services, while McDonnell-Douglas had a long history as a Navy company. MDC went on to become prime contractor, and the YF-17 went on to become the Navy's F/A-18 Hornet.

At the same time, the Air Force plane (then known as the YF-16) was in competition to become NATO's next-generation standard lightweight fighter, along with the American YF-17 (later the F/A-18 Hornet), the French Mirage F-1, and the Swedish Viggen. American pressure in Europe, along with attractive offsets and licensed production contracts, helped to close the deals, and starting in 1975 Norway, the Netherlands, Belgium, and Denmark began placing orders. Some or all of the plane is produced in these four states (subsequently, Turkey also acquired the right to produce the F-16) and negotiated to receive a percentage of profits on all sales to the developing world.

The F-16 is inarguably one of the most widely traded fighter planes in aviation history, surpassed in total transfers by perhaps only the Soviet MiG-21 (a predecessor to the MiG-23/27). Over 3,900 copies have been produced, and it is owned by nineteen states, including its producer country, the United States (see Table 3.2). There are twelve variants of the plane, based on different radar, weapons, and other tracking configurations, plus some generational alterations. Design in the U.S.

Lockheed Martin remains one of three major American aerospace firms, along with Boeing

tends to be highly competitive, and technological advances often lead product demand.

Defense contractors in the U.S. are private, so that, despite their reliance on the state for R&D monies and markets, profits accrue to shareholders. As the state has traditionally been close to a monopsonistic (or sole)¹¹ buyer, Blackaby (1983) suggests that it has been able to set the guidelines to which corporations must adhere and the context within which they conduct business. At the same time, defense contractors are a powerful lobbying presence (Lumpe and Donarksi 1998; Mills 1956; Tirman 1997), and congressmen are careful to spread contracts such that their home districts receive some share of the work. Sampson (1977) describes the extra-legal efforts of prime contractors to secure sales outside the American market and indicates the tacit approval by the U.S. State, Defense and Treasury Departments.

While a number of European suppliers, such as France, have one bank that guarantees financing for arms transfers, the U.S. does not. The Export-Import Bank (Ex-Im) stopped doing so after a number of defaults in the 1960s and 1970s, although in recent years they have begun guaranteeing loans for dual-use technology (Johnson 1994; Lumpe and Donarksi 1998). Maddock (1990), citing 6000 Department of Defense bail-outs of military contractors and

and Northrop-Grumman.

¹¹ A monopsonistic market is one with only one buyer. Although other states do acquire the arms produced in a supplier state such as the U.S., because the state sets initial parameters for production and then, in effect, contracts for the purchase of major weapons systems on behalf of other states, the market is effectively a monopsony.

sub-contractors since 1958, argues that barriers to exit are at least as high as those to entry. Recent restructuring has made this assertion less applicable today, but it is true that prime contractors and sub-contractors in the defense sector continue to benefit from state support. The rate of profit in the U.S. defense sector is higher than in comparable industry, especially when considered more realistically as the rate of return on company investment (given the heavy state subsidies of the industry) (Reppy 1983).

Despite its characterization as a politically-motivated supplier, the economic benefits to the U.S. from its arms transfers cannot be overlooked. These include foreign exchange and balance of payments contributions, sustained employment in the defense industry, maintenance of economies of scale, a return of R&D investments, and absorption of surplus production (Klare 1984; Pierre 1982).

The Soviet MiG 23/27

The MiG 23/27 was produced by Mikoyan Gurevich, one of the former Soviet Union's premier aircraft firms.¹² Exports of the plane began in 1973. Some 1,300 to 1,400 Floggers (Flogger is a designation assigned by NATO) are found in twenty states outside the former USSR (see Table 3.3), and another 1,400 can conservatively be estimated to have been produced for Soviet forces (drawn from Arbatov 1994:37); there are six known variants. Though there are perhaps more variations based on subtle

changes not known in the West, it should be noted that one overriding philosophy of Soviet weapons design was to aim for a high degree of standardization in order to facilitate mass production, particularly among Warsaw Pact forces. (Even commercial aircraft were based on military plans and specifications so that, if need be, they could be drafted into wartime service.)

The defense industry in the former Soviet Union was centrally directed, and strong efforts to anticipate defense needs were made. Rather than design spurring acquisitions, in the USSR perceived need led design. Kortunov and Arbatov (1994) and Ozhegov (1994) concur that Russian military aircraft are internationally competitive, and Kortunov and Arbatov argue that the prestige of post-Soviet weapons remains high.

Klare (1984) argues that Soviet motivations for transferring arms were more political than economic, and cites efforts to use arms for tools of influence, as tools in the Soviet competition with the U.S., as a component of Sino-Soviet competition, in order to gain access to military elites, and finally, as a source of hard currency. Indeed, Albrecht (1983) reviews studies indicating that, as compared to Western states, the USSR was more reliant on arms as tools of access; they supplied smaller amounts of other forms of aid, and had "thinner" financial and trade ties. The degree to which this strategy was effective, however, was small. At the same time, examination of Soviet arms trading patterns reveals first that they transferred arms to states which

¹² Serendipitously, the acronym for the series of fighters produced by Mikoyan Gurevich,

were not sympathetic to communism, including Libya, Iraq, Egypt, and Algeria and, second, that the distribution of their arms “is marked by unevenness and massive local concentrations with little evidence of [overall] strategy” (Albrecht 1983:366). While a number of scholars argue that the USSR had economic motivations for transferring its aircraft, Kortunov and Arbatov (1994:87) claim that it “supplied many ... weapons (including 27,000 aircraft and helicopters) for political reasons and, more often than not, as grants or through barter deals.”

Economic need, however, played an important role in Soviet arms transfers, and the need for currency in the Soviet Union cannot be ignored as a motivation. Writing in 1983, Albrecht (1983) argues that the Soviet Union had nearly eliminated generous trading terms as a component of its arms transfers, given their need for hard currency. This trend continued through to the current period, although some notable deals were marked by generous terms (such as the deal with India in 1980) and by barter (such as the widely-publicized Russian-negotiated transfer of MiG-29s in exchange for Malaysian palm oil in 1995). Even early deals were discovered to have been transacted for cash: “during the 1973 October War, Egypt had to pay in cash for equipment brought in by Soviet airlift” (Albrecht 1983:366). Between 1966 and 1980, Laurance (1992) notes, the USSR acted like any other “cash-hungry” supplier eager to bring in oil dollars.

MiG. is also a very old Russian word: a *mig* is a moment, a flash, or a twinkle.

The French Mirage F-1

The Mirage F-1, produced by Dassault-Breguet, is owned by eleven states, and there are thirty-five variants which can be found among the more than 700 aircraft produced (see Table 3.4). The greater variation is common among French aircraft and reflects Dassault's incremental approach to design (Lovell and Hoffman 1989), while industries in other states tend to freeze the design process early in development. Dassault's attitude to variation and willingness to accommodate client requests for design changes is an effort to facilitate international sales.

The plane competed with the American F-16, among others, for selection as NATO's standard lightweight fighter. In supporting the plane, France tried to emphasize a need for a united Europe and urged NATO's small states to choose a European aircraft. The lightweight fighter competition was highly publicized in France, and much state effort was expended in promoting the plane; "the political climate in France in all respects supported the national effort..." (Dörfer 1983:178). However, the Mirage F-1 was not designed as part of a military-led procurement strategy, and France never procured the F-1 for its own forces, greatly weakening its prospects abroad. Rather, the plane was designed as a stop-gap measure after a joint development program with the UK floundered, and Dörfer calls it an export-only "political bird".

The F-1, first exported to South Africa in 1971, was a follow-on to the highly successful Mirage III, a widely-exported fighter which proved its capabilities flying, among others, with the Israeli Air Force. Similarly, the Mirage 2000 is a follow-on to the F-1, with new avionics and other systems upgrades. While it was during the twenty years covered in this study the world's third-largest weapons exporter, France produced and delivered far fewer aircraft than either the U.S. or the former USSR.

Economic motivations for transfers are important for France, and the large number of variations indicates a willingness to undertake design changes requested by the purchasing state. It certainly would appear that standardized mass-production is of less concern to the French aircraft industry than to that in the USSR.

The defense industry in France, the "oldest national system for producing arms in the Western world," (Kolodziej 1983:108) is characterized by a mix of state-owned (such as Aerospatiale) and private firms, and state military planning, production, and procurement are directed under 5-year *loi-programmes*. The industry has three tiers, overseen by the Delegation Générale pour l'Armement (DGA) within the Ministry of Defense. First, is an "elaborate arsenal and shipbuilding complex" under the direction of the DGA. The second tier is made up of a series of semi-public firms and contractors, including Dassault Aviation, and the third, smaller, tier is composed of private-sector firms (Kolodziej 1983:83-85).

The firm that produced the F-1, *Avions Marcel Dassault*, produced its first aircraft in 1945, merged with Breguet Aviation (forming Avions Marcel Dassault-Breguet Aviation, or AMD-BA) in 1969, and finally in 1990 was renamed Dassault Aviation. Marcel Dassault himself was a charismatic and influential figure in French foreign policy, and Sampson (1977:119) notes that, "by the time de Gaulle returned to power in 1958 Dassault's position in French politics had become almost institutionalised as a kind of one-man embodiment of the military industrial complex." Until it was nationalized after the election of the Socialists in 1981, Dassault-Breguet was a private firm (Kolodziej 1983) which came to symbolize France's efforts at defense self-sufficiency and independence in foreign affairs.

With fighter planes a number of relationships which interest international relations theorists, security strategists, and sociologists alike meet. Fighter planes are expensive, they are strategic, they are the result of national domestic and international politics, and they are perhaps symbols of the sovereign state. Laurance (1992:38) states that, "(m)odern fighter aircraft are considered a bellwether of arms trade relationships. They are expensive, visible, and get a great deal of attention in the policy-making process," though he cautions against using fighter aircraft alone as an indicator of military capability or as a predictor of conflict. Fighter aircraft, which embody the top technological capabilities of their producers, are the most expensive technological system to be exported in high volume, represent the largest

share of arms exports in terms of cost, and comprise the largest share of industrialized states' industrial procurement budgets (Forsberg 1994). I turn now to a description of the ways in which fighter planes transfers can be negotiated, followed by discussion of data sources and variable measurement.

Negotiating transfers: Terminology

A number of payment and transfer arrangements are common in the trade of major weapons systems. I am using the term "transfer" in a broad sense to include not only sales, but trades, barter, leases, offsets, aid, gifts and other arrangements allowing the weapons systems to move from one state to another. These latter terms are concessionary in that they are sought after by the importer because they make the deal less expensive over time, and they are offered by the exporter, in effect, to sweeten the pot and thus to clinch a deal. Pricing for systems can vary, as well: "...for aircraft, the fly-away price does not include the associated infrastructure, but the system price does. On the other hand, different prices may be asked at different times in the production run due to the write-off of fixed costs and the benefits of an extension of the production run" (Catrina 1994:200). Variations in the systems and components, such as avionics and weaponry, can also influence per unit cost.

In the case of the Soviet plane, the MiG 23/27, payments were at times transacted in *barter* or *trade* in order to overcome the problems associated with inconvertible currencies, such as the Soviet-Indian ruble-rupee exchanges. In

other instances, planes have been bartered outright for other commodities, such as the recent transfer of Soviet MiG-29 fighter jets to Malaysia in exchange for palm oil. Both types of trades provided the former Soviet Union an opportunity to convert the deal into hard currency: in the former case, the USSR bought Indian goods with the rupees which they then sold on the world market, and in the latter case they could take the palm oil to world markets. At the same time, the recipient can save its own foreign currency reserves.

Leases allow the recipient state the opportunity to take possession of equipment, which is often second-hand, for a small initial payment.

Offsets are terms by which the seller state agrees to spend a specified amount of money, usually a proportion of the total value of the deal ranging anywhere from 5 percent to 100 percent or more, on goods and/or services in the recipient state; these expenditures might be required in a particular industry or segment of the economy, but this is not always the case.¹³

Indonesia, Israel and Norway all negotiated offsets from the United States for the F-16, as did Spain from France for the Mirage F-1.

Military aid is a common and complicated transfer arrangement. This aid often comes as part of a larger economic aid package, such as that granted to Pakistan by the United States in 1981, worth approximately \$3.2 billion in

¹³ In a commercial transfer in the late 1980s unrelated to the planes in this study, McDonnell Douglas entered into an offset arrangement with Poland for MD-80s; the company bought Polish hams and cheeses, which they gave to employees as Christmas bonuses for several years. This arrangement differs slightly from those involving military aircraft in that the selling company was obliged to buy Polish goods; in military sales, which require the involvement of the seller state, the government commits on behalf of industry more generally to make the required expenditures.

economic and military aid, including funds for the purchase 34 F-16s.¹⁴ Other forms of military aid come in the form of low-interest, long-term loans to be applied towards military purchases. One example is India's 17-year, 2.5% interest deal for, among other goods, Soviet MiG 23/27s.

Gifts, less common during the study period than now, account for only three cases in this study -- the 1979 and the 1982 transfers of MiG 23s from the Soviet Union to Libya, and the 1973 transfers of MiG 23s to Egypt: the equipment is provided without charge to the recipient state. The United States and other NATO states are stepping up their programs of transferring used military equipment as gifts as they seek to reduce their Cold War stockpiles.

In addition to payment terms, recipients are eager to acquire technology or production rights, and as a result try to negotiate other conditions attached to the transfer of high-technology weapons systems: technology transfer, licensed production, co-production, or co-development. Recipient states are generally keen to acquire some form of technology transfer, as it is considered a way to boost a fledgling arms industry. Anthony (1990:15-17) notes that in fact all these arrangements incorporate some degree of *technology transfer*, or the movement of specialized knowledge and capabilities from the producer to the recipient; the complex issue of the hierarchical control of technology and its link both to weapons acquisitions and states' development goals is taken

¹⁴ This amount, negotiated by the Reagan administration, was settled upon following President Zia's denunciation of the Carter administration's 1980 offer of \$400 million as "peanuts."

up in Chapter Six. *Licensed production* includes a number of possible arrangements, ranging from the local manufacture of equipment from kits provided by the seller state, to production of the aircraft from locally-made parts, to complete local manufacture -- including tooling -- based on disclosure of plans by the seller state. *Co-production* and *co-development* require closer cooperation between states and are less common. Co-production is an instance when two or more states work jointly to manufacture a weapons system designed by one of the participants; two or more states working jointly to design a weapons system is co-development. These particular arrangements do not appear in association with any of the planes in this study (though a competitor plane, the British-French Jaguar, is an example of co-development and co-production).

Recent years have brought significant changes in the ways that states conduct arms transfer deals. While early on new (post-colonial) states had difficulty merely absorbing the military technology they received, later they sought licensed production deals. As their industrial capacities grow, they now actively seek technology transfer (Keller 1995).

An understanding of these arrangements is important to this study in that one of the hypotheses developed is that variation in terms of transfers are indicative of variations of the types of relationships and alliances between states more generally. For example, core allies of the United States are more likely to negotiate deals which do include some form of technology transfer, due to their close ties with the U.S. and their generally unthreatening

relationship *vis-a-vis* their supplier. They are more likely to end up with less generous payment terms, however, such as low-interest loans or aid. Semi-peripheral and peripheral allies of the U.S. are less likely to be able to negotiate technology transfer arrangements, as such information is deemed too sensitive to pass on. They are, however, more likely to acquire their aircraft as part of aid packages or on more generous loan terms than are core recipients. Importers of the Soviet plane are unlikely to be core states outside Eastern Europe; Eastern European allies are likely to receive their planes by buying them outright. Other recipients of the MiG 23/27 are likely to be non-core and either ideological allies (such as Cuba) or trading partners (such as India). They are unlikely to receive technology through transfer for the same reasons that non-core importers of the U.S. plane do not, and they are more likely to receive their equipment in exchange for hard currency needed by the USSR. Recipients of the French plane, core and non-core, are not likely to have negotiated either concessionary terms or technology transfer arrangements, as France relies on the sales of its technology to offset its production costs to a greater extent than do either the United States or the Soviet Union.

Throughout this dissertation, the terms supplier, seller, and exporter are used interchangeably, as are the terms importer, recipient, and acquiring state.

Data sources

Data were collected over a ten-month period at the Stockholm International Peace Research Institute (SIPRI). Much of the standard information on the transfers – buyer, seller, value, delivery schedule, and some information on components, funding arrangements, and price -- comes from SIPRI's computerized database, the Arms Transfer Register. This database is among the most complete and reliable sources on the arms trade available. Additional information comes from registers published by SIPRI, IISS (International Institute for Strategic Studies - UK), ACDA (Arms Control and Disarmament Agency - USA), IDDS (Institute for Defense and Disarmament Studies - USA), and *The War Atlas*. Data on gross domestic product are from the Penn tables maintained by the National Bureau on Economic Research.

The bulk of the material for the historical case study is taken largely from published histories, newspaper accounts, trade publications, and analyses of the arms trade. Data for the national case studies come from SIPRI's archives. The archives, which extend back for thirty years, include relevant articles from trade publications, such as various Jane's publications, Aviation Week and Space Technology, AIR International, and MILAVNEWS, as well as topical articles from American, European, and Asian newspapers and periodicals. I have also consulted secondary sources and government publications.

Measurement of Variables

Dependent variables

Plane Model (variable names: F-16, MiG, Mirage) is a series of dummy variables for each plane model which falls within the rubric of this study. The data come from SIPRI's computerized Arms Transfer Database and in this study are current to 1998. This variable is a straightforward indicator of which plane model (or models) was received by each state. Timing is an interval-level variable obtained by calculating the number of years between the time a plane was first available on the world market (the baseline year) and the year in which a state first took delivery of that plane. The information for this variable is drawn from the information available in SIPRI's Arms Transfer Database. This variable is important to both the realist and institutionalist perspectives, though each interprets it differently. While for realists, swift access to weaponry is a given for military allies, for institutionalists, the diffusion of weaponry within a relatively tight time-frame indicates the designation of said weapons as symbols and thus the presence of a global culture with norms of national security. However, I will argue that timing of weapons acquisition is more a function of recipients' development goals coupled with the advantages or disadvantages of their structural position in the world system.

Covariates

War is measured by three dichotomous variables, each measuring a different time component and designed to assess the impact of recent warfare experience in a state's weapons acquisition strategy. "War3" is coded 1 if a state has experienced either civil war or interstate war at any time in the three years prior to ordering one of the three study aircraft and zero if it has not. "War5" and "War10" are similarly coded. Data are drawn from the *Dictionary of Wars* (Kohn 1986), with supplemental information from *The War Atlas* (Kidron and Smith 1983).

Alliance is a dichotomous variable, coded 1 if a state was in either formal military alliance and 0 if it was not.

Historic weapons supply relationship is drawn from Harkavy's (1994) classification, which outlines nine categories of supplier-recipient relationships: a) sole source: west bloc; b) predominant source: west bloc; c) predominant source: mostly west bloc, some east bloc; d) multiple source: within the west bloc; e) multiple source: west and east blocs; f) multiple source: within the east bloc; g) predominant source: mostly east bloc, some west bloc; h) predominant source: within the east bloc; and i) sole source: east bloc.

Military expenditure is drawn from SIPRI's annual registers, and is a measure of a state's expenses on its military as a percentage of its gross domestic product. I have logged the variable.

Conclusion

This chapter has described the methodological strategies of the dissertation. I have also delineated case selection and brief histories of the fighter planes described therein. Finally, data sources and measurement of variables was presented. I turn now to statistical analysis of the competing theoretical perspectives on arms transfers.

CHAPTER FOUR

MODELS OF THE ARMS TRADE

In this chapter, I conduct statistical tests of current thinking on arms transfers. In particular, I will focus in this chapter on three analytical questions: the relationship between a state's military alliances and its weapons acquisitions; the effect of war experience on acquisitions; and, the timing of states' fighter planes acquisitions.¹⁵

These points allow for an analysis that incorporates key theoretical issues. A strong correlation between military alliance and military aircraft acquisitions is a key tenet of realist thinking on the arms trade and is, in effect, the default assumption about the nature of the international arms market. States seek and receive weapons from the super-power with which they are allied. Warfare, also, has the potential to play a key role in states' decisions to arm, and it is assumed in some versions of realist theory to drive a country's desire to arm. Weak relationships between alliance or warfare and acquisitions would call into question basic assumptions of security behavior.

Timing of acquisitions, or how long it takes for a given state to acquire a particular model, speaks to a number of theoretical assumptions: first, it addresses the question of the relationship between seller and buyer, and how important, in a geo-strategic sense, each regards the other; second, it allows

¹⁵ In two senses: first, did they receive the aircraft early or late in the time period under study, and second, what was the political and economic historical context in which they

for an understanding of the importance of specific dynamics surrounding the transfers. For realist scholars, the more closely allied a state is to its supplier, the sooner it should receive advanced equipment, and similarly, for world systems scholars, advanced technology should move first through the core, and then to the semi-periphery, and finally to the periphery; institutionalist scholars who focus on diffusion as a mechanism, hypothesize that arms spread, through largely uncontested trade relations, across the international system within a brief timeframe. These assumptions are discussed in greater detail below.

Trends, patterns, and a test of theory

I now turn to an analysis of general trends in the transfers of the three aircraft to all recipient states. This section will focus on an overview of the trading patterns and an examination of some of the key tenets of arms transfers studies.

Political and military pressures

Traditional studies of the arms trade see weapons transfers as part and parcel of international, or "high" politics (Sampson 1977). Particularly during the Cold War era, and especially between 1970 and 1990, arms transfers were seen as an important tool for the superpowers in their bids to influence regional affairs and political outcomes in many developing, post-colonial states. The

received them? The former question is explored in this chapter, while the latter is the focus of

standard, realist-derived model suggests that military allies should receive sophisticated equipment early in the product's life-cycle, before others begin to acquire it. For the US plane, the F-16, such a view predicts that NATO members, or perhaps regional allies -- those countries facing what might be deemed a threat from either Soviet allies or other states considered hostile to the U.S. -- should receive the plane before other states do. A similar pattern is predicted to hold for the Soviet plane, the MiG-23/27. Payment options are likely to be downplayed due the greater importance states place on military or political need over economic concerns. The French plane, on the other hand, is likely to be sought out by non-aligned states or states at war experiencing difficulty acquiring another model.

Trading in this generation of fighter aircraft began in the early 1970s (1971: Mirage F-1; 1973: MiG 23/27, and 1975: F-16); a complete chronology of the trades is presented in Figure 1. Of a total of 185 transfers and negotiations for transfers to 50 states, 47.0 percent involved the American F-16, 33.0 percent the Soviet MiG 23/27, and 20.0 percent the Mirage F-1. These numbers roughly reflect the overall market shares of the respective suppliers. In the period 1975 to 1985, the USA controlled 39.2 percent of the world's arms market, the USSR 36.2 percent, and France 7.8 percent; in the period 1981 to 1985, the respective figures were 25.2 34.0, and 13.9 percent (Brzoska and Ohlson 1987:4). Order size ranges from one plane to 165, with a mean order

the case studies.

size of 23-24 (23.71) planes. Estimated unit cost of the planes ranges between \$22 million to \$28 million.

What we see upon examination of the trading patterns of these three planes is partial adherence to the predicted patterns, with allies within the core receiving the aircraft before other states, along with frequent exceptions. Some early trade is with military allies, but not necessarily on good terms. However, a great deal of trade is to countries not formally allied with the supplier, and outside the core. These cases are interesting in a number of regards. What allowed non-allies and non-core states to acquire the aircraft early on? How were they able to negotiate favorable terms for these acquisitions? What is it about these semi-peripheral and peripheral states that allows for a different outcome than theory suggests?

Timing and alliance

That arms will be transferred to military allies is a mainstay of thinking on the weapons trade (for discussion of states' balancing efforts and the security dilemma, see (Jervis 1978; Snyder 1971; Walt 1987). That they will be transferred to those allies in a timely manner logically follows, for military alliances are designed to contribute to mutual security through cooperation and interoperability, as well as by, when possible, being armed at a level of sophistication higher than those outside the alliance.

In order to test the relationship between alliance and plane model acquired, first a chi-square test was conducted using two variables,

ALLIANCE (indicating whether states were NATO member, Warsaw Pact members, or not aligned) and MODEL (indicating plane model). We would expect to see a strong relationship between NATO members and the F-16, as well as between Warsaw Pact members and the MiG-23/27, along with empty cells for the NATO/MiG combination, the Warsaw Pact/F-16 combination, and possibly the Warsaw Pact/Mirage F-1 cells. The database is constructed such that deals, not states, are cases, so if a state purchases the same plane in more than one batch, each acquisition will be counted as a separate case.

Chi-square results in Table 4.1 indicate that plane model received and the recipient's political alliance -- NATO, Warsaw Pact, or non-aligned -- are not independent (Pearson chi-square = 40.814 with four degrees of freedom; reject H_0 at .005) In other words, there is a relationship between a state's military alliance and the plane type it receives. This relationship is marked, however, by the fact that the greatest percentage of the recipients of each plane are un-aligned rather than part of one of the formal military structures in place (63.2% of F-16 deals, 75.4% of the MiG deals, and 86.5% of the Mirage deals were with un-aligned states). The two major suppliers, the U.S. and the USSR, are trading to many states outside their formal military alliances, and France's deals were almost entirely made with states outside the two major formal military groupings. Although France was not a member of NATO's military command structure at this time, it was still a member of the political configuration. However, France has long had a reputation of being a willing supplier to states that the other suppliers were more wary of, such as South

Africa, and states outside the formal military alliances, as long as the recipient state could pay for the aircraft. Neither the American nor the French plane went to any Warsaw Pact state, while a total of four transfers of the MiG were to NATO states; these transfers, representing Western states acquiring Soviet technology for research purposes, have all been negotiated since the demise of the Soviet Union and are quite small in terms of total number of planes ordered.

Perhaps a disaggregation of states which are somewhat less formally but nonetheless historically tied to recipients would move beyond what amounts, essentially, to an allied/un-allied dichotomy and suggest greater allegiance to one Cold War supplier or another. The next variable to be tested against plane model, PATTERN, is a breakdown of states according to their historic supplier patterns. Harkavy (Harkavy 1994) gives a nine-category breakdown, which I collapsed into seven categories so as to help eliminate low cell frequencies.¹⁶ Nevertheless, a number of cells, as would be logically expected, do contain low cell frequencies, namely those representing F-16/WP deals and MiG/NATO deals.

The chi-square results presented in Table 4.2 indicate that, as with formal alliance, a state's historical buying pattern and model subsequently chosen are not independent. The bulk of those states with a history of buying

¹⁶ Harkavy's nine categories of acquisition patterns are as follows: (1) sole source: West bloc; (2) predominant source: within the West bloc; (3) predominant source: mostly West bloc, some East bloc; (4) multiple source: within the West bloc; (5) multiple source: West and East blocs; (6) multiple source: within the East bloc (empty); (7) predominant source: mostly East bloc, some West bloc; (8) predominant source: within the East bloc; and (9) sole source: East bloc. I

Western (largely American) weapons received the F-16 while the bulk of those with a history of receiving other Soviet weapons received the MiG 23/27; a small majority (57.1%) of Mirage F-1 deals were made by states which had multiple suppliers within both the West and the East blocs. It is in this category plus the other two that include an East/West supplier mix where some of the most interesting cases lie; three of the case study states, Greece, Pakistan, and India, are found here. Forty-six percent of the cases fall within the multiple supplier categories, and 23% of those have multiple suppliers across blocs. These deals are made by states which tend to have not only multiple suppliers but multiple aircraft types with similar capabilities. The factors prompting (or forcing) states to seek multiple suppliers and redundant systems will be explored at length in the case studies.

Given that arms seem in large measure to be transferred within broadly-defined blocs, an extension of the proposition suggested above includes a time component: arms will be transferred to military allies (Warsaw Pact, NATO states) first, with less-formally allied states receiving weapons later. The variable "Delivery Year Minus Baseline Year" indicates the number of years between the initial delivery of each plane and its baseline date, or the year in which it was initially available (Mirage F-1: 1971; MiG 23/27: 1973; F-16: 1975), and for this analysis that variable is broken into five-year intervals and thus recoded as a categorical variable. Results indicating

collapsed the two (1 and 2; 8 and 9) on either end, yielding categories representing (1) sole or predominant source: West bloc, and (7) sole or predominant source: East bloc.

that non-aligned states enjoy equal or earlier access to equipment would warrant further exploration.

The chi-square test of the relationship between model and years after baseline for delivery show, in Table 4.3, that the two variables are not independent; in other words, states receiving particular models are likely to do so within particular periods after its availability. Specifically, those getting the MiG are more likely to receive it earlier – within the first 10 years of its availability -- than those taking delivery of either the Mirage F-1 – between 10 and 15 years of availability – or the F-16 – the majority of whose recipients received it only 15 to 20 years after its availability on the world market. Is membership in the Eastern alliance a greater guarantee of speedy access to superior equipment?

A further test analyzing the relationship between whether a state is allied and when it receives its fighters suggests that it is not: chi-square results in Table 4.4 show that we cannot reject the null hypothesis that alliance status (0 = unaligned, 1 = aligned) and quick access to equipment -- any of the three planes -- are independent. In other words, membership in a formal military alliance is no guarantee of an early initial delivery date; being party to a formal military treaty with one of the two major suppliers has no bearing on when a state acquires its fighter aircraft. Rather, states that are allied and those that are not exhibit similar patterns in terms of the timing of their acquisitions, with 52.6% of unallied states receiving their aircraft within ten years of its introduction and 55% of allied states doing so.

War experience and militarization

A logical arming imperative is perceived military need, either due to assumed threat or actual military engagement. Thus, I will test the degree to which these factors are related to fighter aircraft acquisitions. Three variables test the relationship between recent war experience (at three, five, and ten years prior to first aircraft acquisition date), acquisition, and model received. If the states in this study, all of which have acquired at least one of the three fighter planes, do not show recent war experience, we must look for other factors driving their procurement decisions. The variable "Military Expenditures as a Percent of Gross Domestic Product at Order Date" assesses the military efforts of the recipients. As Deger and Sen (Deger 1990) point out, military expenditure is a useful indicator of a state's overall military effort, whether to modernize forces or to prepare for conflict. States with lower GDPs do tend to exhibit higher military expenditure levels (Deger 1990; Mullins 1987). At the same time, those states which are included here and show low levels of military expenditure are clearly devoting a large percentage of their military spending to expensive, high-prestige projects; this holds more strongly for those states acquiring more than one of these planes.

Results from chi-square tests of recipient state involvement in local, regional, or civil conflict at some point in the three, five and ten years before transfers suggest that this activity is not strongly correlated with fighter plane acquisitions: 56.2% of recipients had not been at war in the five-year span

prior to acquiring their aircraft. At the same time, there is some relationship between recent war experience and the model of plane purchased (chi-square = 10.67, reject H_0 at .005; chi-square = 11.304, reject at .005; chi-square = 9.886, reject at .01, respectively). Table 4.5 shows the results from the test of the relationship between war experience five years prior to receiving aircraft and plane model received.

A closer look at percentages shows the following pattern: the U.S. is generally twice as likely to transfer to states without a history of recent conflict (only 31.0% had been at war in the previous 3 years); the Soviet plane, the MiG, is equally as likely to go to states currently or having been at war in the three years prior to their purchase (50.8%); and, recipients of the French plane, the Mirage, were more likely to have been at war than not (59.5%). These numbers remain virtually unchanged when the time-frame is extended back five years prior to plane delivery. It should be noted, however, that the higher totals for the U.S. are dragging down the percentage, and that the U.S. in fact transferred to a similar total number of states with war experience as did the USSR (twenty-seven and thirty-two, respectively). Not surprisingly, extending the analysis back even further, ten years prior to delivery, reveals a greater tendency for all states to have delivered to a state with war experience (40.2% of F-16 recipients, 62.3% of MiG recipients, and 64.9% of Mirage recipients had experienced war in the ten years prior to taking delivery of their fighter aircraft).

While this doesn't answer the question of whether or not war in and of itself spurs arms transfers, I will suggest that war experience alone is not an adequate indicator of a state's desire to arm: more than half (56.8%) in the sample had no war experience in the three-year span prior to ordering their aircraft.

Finally, in Table 4.6, the relationship between military expenditure (as a percent of GDP) suggests that while most recipient states have military expenditures falling in the lower ranges (less than 5.0%), the U.S. and France are more likely to have transferred to states with slightly higher expenditures (5.1 - 7.5%), with fewer recipients in the higher ranges, while the Soviet Union shows a small but steady recipient group into all military expenditure ranges.

A majority of F-16 recipients (90.2% of those whose military expenditures are known) show military expenditures at order date of between less than one and 7.5 percent of total GNP, as do a majority (75.0%) of Mirage recipients. A small majority of MiG recipients (56.3% of states whose military expenditures are known) also show military expenditures in this range, while 43.6% have greater expenditures, some with expenditures over 15%. While some analysts have suggested that France and the Soviet Union were more likely to be involved with states that spend a greater percentage of their total revenues on the military, this analysis suggests that this proposition held only for the Soviet Union.

These results raise interesting questions. The purpose of a military alliance is to ensure adequate and appropriate defense for all member states,

and one goal of such alliances is technical interoperability of equipment. This interoperability is supposed to facilitate training maneuvers and battlefield deployment. Yet alliance seems to play little role in guaranteeing member states speedier access to advanced equipment. Rather, unaligned states appear to enjoy equal access to these fighter aircraft. Disaggregation and discussion of specific cases is warranted. In fact, the archival data indicates that for all three planes, unaligned states were among the first to operate, and in some cases to acquire licensing rights to, the most advanced fighter aircraft technology of the day. This issue is addressed in greater detail in the following section, which examines the trading trends of the three aircraft during their first five years on the market.

The American F-16, 1975-1979

In the first five years after its 1975 introduction (see Figure 4.1 for a chronology of deliveries as well as a key to state abbreviations), the American plane was exported to Israel, the Netherlands, Belgium, Denmark, and Norway, all clearly U.S. allies. Spain, which had earlier taken delivery of the French Mirage F-1, negotiated for the plane but opted for another American plane, the F-18, instead; F-16s purchased by Iran in 1977 and in 1979 were never delivered. Notable among this list are the absences: only three of the other NATO states went on to acquire the plane in the 1980s that had been selected in 1975, after protracted and sometimes rather nasty competition, to

be NATO's standard lightweight fighter plane.¹⁷ The only other NATO states to purchase the F-16 were Turkey, beginning in 1984, Greece, in 1985, and Portugal, in 1989. However, three NATO states -- France, Spain and Greece -- purchased a competitor plane early on, the Mirage F-1 (discussed in more detail below), while the remaining NATO members acquired other fighter aircraft.

This pattern of more F-16 trades outside NATO than within suggests contestation both among and within the NATO states regarding weapons acquisitions. At this time, Spain was not a member of NATO (it joined in 1982 and remained outside NATO's military command until 1996). Greece withdrew from NATO in 1974, not rejoining until 1980.

The French Mirage F-1, 1971-1975

France, hypothesized to transfer the Mirage F-1 to those states most likely to either a) be able to pay, or b) with recent conflict experience, shows a mixture of the expected and the unexpected. Saudi Arabia, South Africa, Spain, Kuwait, Greece, Libya, and Morocco all imported the Mirage F-1 in its first five years on the market (see table 4.8). Greece negotiated offsets. As mentioned above, two Western European states in addition to France itself purchased the Mirage F-1. These are interesting in their relation to NATO: Greece withdrew from NATO in 1974, the same year it ordered its Mirages;

¹⁷ See Ingemar Dörfer's (1983) book for a detailed account of this competition. Other planes under consideration were the French Mirage F-1 and the Swedish Viggen, as well as additional American fighter plane prototypes.

Spain was not at the time a member, not joining until 1982; France, though a NATO member, was not a part of the alliance's military command (joining in 1996).

France has been characterized as a supplier willing to sell to virtually any state able to pay (Kolodziej 1987; Pierre 1982). After sales early on to South Africa, Spain (which continued through 1994), and Greece, the rest of the sales of the Mirage F-1 were to oil-wealthy Middle East states. The one case of particular interest, however, is that of Pakistan. In 1972 Pakistan entered into negotiations with France for licensed co-production of the Mirage F-1. The country was involved in not only a regional balance of power struggle with India (which outarmed Pakistan at a rate approximating 3 to 1 (Smith 1994)) but also in the cold war struggle for influence and containment between the United States and the USSR. Following the war between India and Pakistan in 1971, both countries were rearming. Both considered offers for aircraft from a number of countries: India was also negotiating for the Mirage F-1 but is said to have dropped it from consideration because of the friendly ties between France and Pakistan.¹⁸ Nothing came of the Pakistani-French negotiations, and Pakistan eventually acquired an updated version of its Mirage IIIs, the Mirage V, and then went on to acquire, beginning in 1981, the American F-16.

¹⁸ India was undergoing its own lengthy acquisition process for a lightweight fighter plane: a deal for full co-production of the British-French Jaguar was altered in favor of the Soviet MiG 23/27 deal, with generous credit and extensive licensed production rights, and that deal was subsequently augmented by one for the French Mirage-2000.

The distribution pattern of the Mirage F-1 in its early years does indicate a willingness on France's part to sell to states with whom other suppliers are reluctant to negotiate. What's more, it can be seen as an effort on the part of Europe's southern states to position themselves both within and beyond Europe: the acquisition of the aircraft represents state-building and consolidation, with the some of the most modern equipment available, while allowing the importers some distance from the United States and Western Europe's military alliance.

The Soviet MiG 23/27, 1973-1977

The transfers of particular interest in the early years, especially in view of most existing theory on the arms trade, are those of the Soviet MiG 23/27. Until the early 1970s, the Soviet Union had tended to supply weapons on generous terms to allies, potential allies, or those states with access to resources (including naval facilities) (Krause 1992; Smith 1994). By the 1970s, however, they were beginning to require cash for arms and to offer less generous repayment schedules for military loans. Furthermore, scholars suggest that, despite a general willingness to supply arms on good terms, the USSR generally drew the line at sending advanced weaponry a) before it entered service with the USSR, b) before the Warsaw Pact states in Eastern Europe received the equipment, and c) to areas of the world actually involved in conflict. Yet in 1973, the year that the first production MiG 23s were delivered to the Soviet air force, they were also traded not only to the German

Democratic Republic, but to Syria, Egypt, and Iraq (see table 4.8). The next Warsaw Pact state to receive the Flogger was Czechoslovakia, in 1977; in that year Ethiopia, Vietnam, Algeria and Iraq did as well. India, Libya, and possibly North Korea also received the Flogger before the remainder of the Warsaw Pact states. Perhaps this fact is not overwhelmingly surprising: many of these countries had long records of arms transfer and other relationships with the Soviet Union, so it makes some sense that they would also receive this particular plane. However, all of them except Algeria show recent war experience, contradicting the view that the Soviets, despite the struggle for influence with the United States, stopped short of sending advanced weaponry to war-torn areas. What makes these cases interesting is the timing of the acquisitions. These data suggest that the Soviet Union was in fact quite willing to supply its cutting-edge technology not just to its closest geographical allies, the Warsaw Pact states, but to other allies -- or potential allies -- around the world.

The planes are at times transferred as gifts (Libya, Egypt) or on generous loan terms (India), so it seems the transfer itself is more important than the money involved. Rather than exchanging its equipment for convertible currency, a number of states received them either as gifts (Libya, Egypt) or on quite favorable loan terms (India).

Terms of transfer

Overall, the pattern for deal type shows little change over the time span tested here. More deals were transacted with credit offered by the seller between 1978-1982, with some continuing thereafter. Transfers as military aid are common throughout, with the following distinctions: gifts from all suppliers predominate between 1973-1982, and between 1979-1990, the United States (for whom the most data is available) shifts to conducting more deals as Foreign Military Sales (FMS). Anecdotal evidence about the Soviet Union indicates that it, too, began trying to sell, rather than give away, its aircraft (although by the 1990s they were relying heavily on barter and commodity trade for military equipment). France has never engaged heavily in arms as gifts, relying instead on sales. The bulk of offsets fall between 1985-1990, and this trend is continuing. This point deserves further mention. The rise in FMS (Foreign Military Sales) was part of a trend begun in the early 1970s, in part as a response to the OPEC oil embargo and in part as a response to the Nixon Doctrine (the policy that states should be provided the means to conduct their own warfare and U.S. troops should, by and large, remain at home). Because FMS deals are negotiated between governments, recipient states have more opportunity than ever to play sellers off against one another, to bargain for terms they deem attractive, and to acquire rights for production and technology. This is illustrated by the rise in offsets, which obligates the selling state to purchase goods in the recipient state. Two examples of offsets and the ways that recipient states use them in state-building rhetoric, in

Greece and in Spain, will be discussed further in the case study portion of the dissertation.

Finally, volume of the deals, both in numbers and value,¹⁹ declined until 1990-1996, when total order number went up but total order value went down. This suggests that states are receiving slightly less sophisticated equipment (in terms of avionics, weapons and other systems which can cause the price of planes to vary) -- in effect, the baseline model -- but more total numbers of aircraft and lends support to the idea that these weapons systems are at times purchased less as potent weapons to be deployed in well-defined military contexts than as symbols of the well-equipped state.

Discussion

Taken together, the basic perspectives go a long way toward explaining many particular instances of arms transfers. Thus, South Korea was the beneficiary of American military largesse (and economic aid) because of its position on a front line of capitalism's confrontation with communism. Similarly, Cuba long received substantial Soviet military and economic support. Guatemala, Zaire and Botswana; Nicaragua, Ethiopia and Laos; Bangladesh, Zimbabwe and Rwanda all received significant arms (from the U.S., the former USSR, and China, respectively) not because of their ability to pay for them in hard

¹⁹ As measured by SIPRI's trend indicator value. Trend indicator values are used in parts of the analysis to indicate total value of a transfer. This figure, though stated in US dollars, does not reflect the actual price paid for the aircraft. Rather, it is an assessment of the value of the equipment, including components, assigned by the SIPRI research staff. It is used as a

currency but because of local and/or systemic political contestation. On the other hand, some states clearly are courted specifically because of their access to cash: Iraq, Libya, Saudi Arabia and Venezuela (also a political ally of the United States) all clearly fit the bill. Other recipient states found their relations with their super-power suppliers changing as a function of changes in their own regimes. Iran, long an American ally in the Persian Gulf, not to mention an important (i.e., wealthy) client, found itself cut off from American arms after the 1979 regime change, and Egypt changed suppliers three times (the UK and France to the USSR to the U.S.). Finally, states receive weapons from suppliers with whom they have historic, often colonial, ties: Ivory Coast and Gabon from France; Kenya and Malawi from the United Kingdom.

Yet the previous section provides only loose statistical support for the standard arguments regarding arms transfers. Membership in a military alliance is not, in itself, a guarantee of early access to sophisticated equipment, as realism predicts. A second tenet of realist thinking on arms transfers also is not supported: recent war experience does not, in itself, drive acquisitions. Patterns that institutionalist thinking would predict also are not apparent. The planes do not move across the states system within an easily identifiable time-frame. Recipients of the MiG get their aircraft much earlier than do those of the F-16, although American weaponry is generally considered the most prestigious. However, the idea that states identify aircraft programs – as opposed merely to aircraft – can be tools is supported by the finding that

comparison figure for different weapons systems, produced in widely varying economic

many states acquiring the fighter planes have a history of receiving weapons systems from a range of suppliers, across the East and West blocs and that a number of states get more than one plane of similar capabilities. Finally, the suggestion that security definitions and goals are evolving, along with changes in the world system, is bolstered by evidence that states are changing the ways they negotiate deals and what they expect to get out of those deals, with technology transfer, licensed production, and offset terms becoming ever more common in fighter aircraft negotiations. In the case studies I will explore reasons why these arguments do not hold up and develop the view that states are piggy-backing additional state-building goals onto their weapons purchases.

Conclusion

Why do some states arm the way they do? Neither war experience nor military alliance explains the decisions of semi-peripheral and peripheral states to acquire modern weapons, nor their ability to negotiate with the superpowers for the equipment. Rather, their un-allied status allows them to exercise leverage and to influence a) the type of aircraft they receive, b) when they receive it, and c) the terms under which they do so. Such a view is a departure from traditional explanations of arms transfers during the period 1970-1990, which see arms and therefore influence and power as flowing out from the superpowers to the small states of the world. In fact, these non-core

environments. The figures are expressed in 1990 US dollars.

states are able to exercise influence over the suppliers in that they can negotiate with more than one supplier for equipment. Using their regional political-military situations to their advantage, they are able to acquire modern aircraft on advantageous terms. However, these are aircraft which are often not deployed into active service right away, even in cases where the importer has a history of recent war experience.

What accounts for the deviation -- a predominance of transfers to military allies combined with concessionary terms -- from expectations derived from the models presented earlier? I see this as an indication that some buyers, particularly those considered semi-peripheral states, are not dependent on their suppliers but have the opportunity to negotiate with their suppliers to work out deals they consider beneficial. Using their regional position and local military histories to their own advantage, they are able to exert a leverage over core suppliers that current work on the arms trade and interstate behavior do not fully account for. Yet despite the careful maneuvering for weaponry, the acquisitions decisions of some importers cannot be seen as rational in the realist sense. As this chapter makes clear, a number of states, including Greece, India, Iraq, Egypt, Spain, and Libya, acquire redundant technology, importing what is essentially the same plane twice over. Furthermore, importers acquire technology that they cannot fully absorb. Libya recently had close to 450 Soviet aircraft, including MiG 23s (Krause 1992); the Libyan air force was unable to operate or maintain millions

of dollars worth of equipment and hence left it on the tarmac. Such decisions make little practical, military, or financial sense.

Geo-politics as well as supplier profit concerns all drive the availability of planes, or which models are available for consideration, and the regional security environment and domestic politics are both important parts of the decision-making calculus. Yet in some states, acquisitions histories suggest that factors other than military or economic rationality influence the process. I turn now to case studies to explore the processes by which states acquire certain weapons systems and the construction of their domestic identities and national security agendas.

CHAPTER FIVE

OVERCOMING MARGINALIZATION AND EXTRA-MILITARY COMPONENTS OF SECURITY IN THE SEMI-PERIPHERY

Traditional, classic studies of arms acquisitions characterize weapons transfers as rational attempts to fill security needs, whether articulated by supplier or recipient (Catrina 1994; Harkavy 1979; Klare 1984; Kolodziej 1987; Kolodziej 1979; Krause 1992; Laurance 1992; Pearson 1994; Pierre 1982). While some scholars emphasize push factors, such as geopolitical or superpower strategizing, and others emphasize such pull factors as regional or internal security threats and force modernization, these works assume arms acquisitions to be a logical outgrowth -- a prerogative, really -- of the security requirements of sovereign states, and little systematic, system-oriented work addresses acquisitions patterns, much less observable anomalies in them. More recent institutionalist theory posits that national security is an outgrowth of a global culture and weapons acquisitions decisions are the enactment by states of a commonly-understood norm of the "modern" state.

The previous chapter demonstrated through statistical analysis that the realist tenets of arms transfer theory do not hold up, at least as far as fighter plane transfers in the late 20th century are concerned. Thus, war history and alignment with superpowers are not strongly related to the timing of acquisitions or the choice of plane. Stronger relationships, though not

significantly significant ones, were found between world-system position and timing of acquisition. States in the semi-periphery or the periphery in 1970 were likely to receive their aircraft more quickly than those in the core. Such a scenario is counter-intuitive to institutionalist theory, which holds that world cultural symbols diffuse within a short time-frame from the core to the periphery.

A major oversight of institutionalist theory – power relations – is taken up in this chapter. The global cultural model has no room for differential outcomes, either for why they exist or how they come to do so. Power, both political and economic, is left untheorized, and a one-size-fits-all theory argues for an uptake pattern of any given norm that occurs similarly – and similarly unproblematically – for all states.

Arms transfers do not take place in either an anarchic and rationalist (realist) vacuum, or as part of a routine enacted by cultural dupes. Rather, they are a socially-constructed and socially-informed activity. Thus while states might at times be attracted to weaponry that symbolizes military power, the acquisitions process is fraught with obstacles and rife with opportunities for groups with diverse agendas to shape the process. Arms acquisitions, as part of a national security position, are likely to be linked with a range of goals that state leaders place under the rubric of national security.

An approach informed by world systems theory would expect to see variation in both national security doctrines and objectives *and* states' bargaining capabilities based on systemic variables. I hypothesize that these

goals are most likely to be linked to broader economic development aims of states, particularly those in the semi-periphery. The degree to which they are able to meet their national security goals and acquire advanced weaponry, along with the impact of the desired outcome on extra-military goals, are all limited by systemic variation in inequality and power, points which are developed in the following section.

INEQUALITY AND POWER

Structural inequality

Inequality, simply put, is a disparity; it is a situation in which one entity (in this case states) has more of a resource, commodity, or opportunity than do others. The study of inequality in the sociological tradition has largely focused on economic inequality, and within world systems studies on differences between core and non-core states and especially the exploitation of the latter by the former.²⁰ Several influential studies have attempted to "map" the world-system using network analysis (Nemeth and Smith 1985; Smith and White 1992; Snyder and Kick 1979). While the authors find some variation in the number, membership, and membership characteristics of strata or zones,

²⁰Gross national product or GNP per capita are two commonly used measures, and the GINI index (a measure between 0 and 1 indicating the degree of inequality within the set) and the GINI coefficient (a measure of dispersion) are also attempts to quantify global inequality. Richer (largely intrastate) measures include the physical quality of life index (or PQLI), a composite of infant mortality, life expectancy at age one and adult literacy (Morris 1979), and the index of net social progress (or INSP), a measure comprising 41 such categories as health of the population, the status of women, political stability, and welfare efforts (Estes 1984) See Crowley, Rauch, Seagrave, and Smith (1998) for a review and comparison of the literature in sociology and economics on development and inequality.

they agree on the existence of those zones, maintained by unequal trade relations, and on the inherent *structural* inequality between them. Further, despite an upward mobility trend, Smith and White remind us that, "(c)ore and periphery are relative terms, not absolute" (Smith and White 1992:880), emphasis in the original). Within the world-system, this relative discrepancy is a function of capitalism. This paper is less an effort to describe global inequality than it is to point out its systemic, structural nature and then to turn to the ways it does and does not mesh with power.

While inequality implies power, power means something quite different. If inequality refers to a situation whereby one state has something, be it trade potential, wealth, military prowess or access to resources, in greater quantity/quality than another, then it is a relational state. Power, on the other hand, is the ability to get a state to act in accordance with one's own preferences, or to behave in a particular way. The scope of power is however circumscribed and made possible by and even manifested through resource exploitation (Mann 1986), including material wealth and inequality therein, suggesting that power flows from material advantage and that it accrues to those states at the top of the capitalist hierarchy.

THREE LEVELS OF POWER

Bargaining power: reverse influence

The political scientist T.V. Paul (Paul 1992:1078) defines power in interstate relations rather conventionally: it is, he writes, "the capacity of a state to

control the behavior of another state." It is manifested through influence, of which he sees two types: decisional (specific) influence and structural. Decisional influence refers to those instances when a policy or diplomatic goal is achieved in accordance with the more powerful state's preferences; it can be thought of as specific power. However, structural influence is more complex, and Paul assigns it three dimensions. First, it results from "enduring interaction patterns among states of asymmetric power and resources" (1079). Second, it is "derived from the asymmetrical ordering of the international system" (1079). Finally -- here, Paul is referring to arms transfers -- there is "the influence a recipient [a less powerful state] develops over a supplier through an arms transfer relationship" (1079), influence which is exploited by the existence of third centers of weapons supply during the Cold War and by the structural conflict between the U.S. and the Soviet Union. He thus develops the idea of reverse *structural* influence, while I will argue that reverse influence is much more limited and thus can only be specific (or decisional, in his terminology).

To the degree that reverse influence affects the cost or perhaps the range of action of the more powerful state, perhaps it has a structural component. But because of its very limited duration and relatively small scope, reverse influence is much more likely to have merely a decisional-level outcome. Because structural influence -- power -- derives from "the asymmetrical ordering of the international system," any lasting impact on it would have to be predicated upon changes in that ordering. The two cases

discussed below demonstrate that this outcome is unlikely given the durability of structural inequality and the pressures to conform to definitions of statehood compatible with those of the hegemonic power. In other words, states effectively employ specific power without effecting structural inequality, structural power, or hegemonic power.

Structural and hegemonic power

Like Paul, a number of political scientists delineate two levels of power: 1) structural, hegemonic, meta- or second-order power, and 2) relational, decisional, or bargaining power (see, for example, (Krasner 1985; Strange 1988; Waltz 1979)). The former is essentially the ability to set and to alter the rules of the system or the game, while the latter involves the ability to influence or alter specific decisions and outcomes. However, in his article on power and arms transfers as tools of statecraft, Keith Krause (1991) distinguishes three levels of power by breaking meta-power into two distinct categories, which he calls structural and hegemonic. Structural power "...is exercised when a patron alters the range of options open to the client or makes it more or less costly for the client to change these options" and is medium-term in duration (322). Hegemonic power "... involves co-opting the decision-making elites and/or legitimating a certain understanding of security (and threats to it) to win continued willing acceptance of the definition of these concepts established by the patron" and is both long-term and difficult to see and to measure (325). Note, however, that hegemonic power does not form just the

definition of security; rather, it encompasses a range of commonly understood and accepted definitions, including Western-style democracy and the neo-liberal market economy.

This conception squares with the definition of hegemonic power offered by Arrighi: it is, he writes, the ability of a state not merely to dominate the system of sovereign states, but "to exercise functions of leadership and governance" (Arrighi 1994:27) over this system. The hegemonic state has, in his words, restructured the system of capitalism from which it derives its power following a period of systemic chaos. The hegemon's power rests on control over resources, primarily capital, and military capability (coercion), as well as the ability to restructure the system such that other participants view it as acting in the general interest (Arrighi 1994). It thus involves a subjective component, which derives from its structural position within the capitalist system. Arrighi argues that the U.S. has assumed a position of hegemonic power based on a particular configuration of the world capitalist and political systems and underpinned by global liberalism.

This view is not incompatible with the work dubbed "the new institutionalism" in international studies, which argues that a global culture regarding the modern state constitutes state identity. This culture is composed of institutions (such as sovereignty), norms (such as national security), and identities (such as the modern state), which both create and define states as well as regulate their behavior (Eyre and Suchman 1996; Finnemore 1996a; Finnemore 1996b; Jepperson, Wendt and Katzenstein 1996;

Katzenstein 1996; Krasner 1988; Ramirez 1987; Thomas et al. 1987).²¹ As states' identities within the states system change, so will their definitions of national security shift. To restate in language more in line with that used by world systems theorists, part of the hegemon's power lies in its ability to make particular political/economic/military configurations appear normal or appropriate.

Part of the U.S. hegemony has been a shift in the conception of the sovereign state and its security requirements such that any given state's definition of national security will be the product of not only its own threat assessment, but also its structural position in the world political and economic systems, as well as a more generalized global normative pressure regarding the sovereign state and domestic, identity-driven concerns. This shift is from a largely military definition of the secure and hence sovereign state to one that effectively incorporates economic and political integration aspects as well. Here I focus instead on how three states maneuver using their specific-level reverse influence within a larger hegemonic framework based on American primacy and the limits to their efforts. Spain, Greece, and Pakistan are three states that received fighter planes from diverse sources in the 1970s and 1980s. In case studies focused on these states, I demonstrate that non-core states have greater power to set the terms for arms transfers than is generally recognized, using specific factors such as their proximity to regional hotspots or access to

²¹ This work offers a powerful cultural corrective to both realist international relations theory and world systems theory, because it suggests that cultural and capitalist systems are not

bases or markets as bargaining tools. At the same time, this power is specific; it has little impact on “the rules of the game”, and, conversely, the acquisitions, while part of development strategies, have limited impact on the inequality inherent in the world system.

SECURITY IN A MILITARILY INSECURE ENVIRONMENT: PAKISTAN

The historic and current security environment of South Asia

It is impossible to understand the military concerns of the Asian sub-continent without placing it in the context of Pakistan and India’s shared historical circumstances and the long-standing tension between them. Created in 1947 out of British colonial territory, the paths of India and Pakistan diverged immediately. India was created as a secular democracy, and has largely remained so, while Pakistan was created as a religious state and homeland for South Asia’s Muslims. The partition of the sub-continent led to massive relocations of Muslims to Pakistan and non-Muslims, largely Hindus, to India, as well as violence on a massive scale; upwards of one million people were killed in the years immediately following independence. Border disputes between India and China led to armed conflict in 1962, in which India suffered an embarrassing defeat, and between India and Pakistan led to a series of conflicts, which continue to the present day and are described below.

While the goal of this dissertation is to explore the extra-military components of arms acquisitions, it cannot exclude the military imperative

mutually exclusive; however, it cannot yet account for the generation of norms or the role

fuelling the weapons trade. This is especially true of India and Pakistan, which have fought three wars since independence in 1947. Disputes over Jammu and Kashmir, a princely state in the far north of the region, led to the first of the India-Pakistan wars, in 1947-49. The region is predominantly Muslim, but in 1947, driven at least in part by fears of an ongoing Muslim uprising, the Hindu ruler of the state signed it over to India. The armies of both Pakistan and India became involved in the two-year dispute, and fighting continues along the disputed line of control. Sustained fighting in the Kashmir broke out again in 1965, after spreading from the Rann of Kutch region. The Soviet Union mediated an uneasy peace agreement in January, 1966. Finally, in 1971 India supported East Pakistan in its war against West Pakistan and secession effort. India's intervention crippled Pakistan's armed forces and paved the way for the independent state of Bangladesh. Tensions in the Kashmiri region remain high, and at several times, most notably in 1990 (see Hersh 1993) for a fascinating summary) and again in 1999, the actions of what Pakistan calls freedom fighters and what India terms insurgents have threatened to pull the two states into another war.²²

While India worried about its neighbor, China, Pakistan feared Soviet intentions in the region and was part of American strategic planning. Pakistan's fears were made manifest by the 1979 Soviet invasion of Afghanistan, which threatened to extend Soviet control to its border. This

they play in relation to capitalism and the world economy.

²² This threat has become all the more dangerous since the May 1998 tests of nuclear devices in both India and Pakistan.

invasion and the subsequent the years of fighting in Afghanistan propelled Pakistan into a position of far greater power vis-a-vis its super-power ally, the United States, than it had previously enjoyed or would later enjoy. I turn now to discussion of this influence and how it meshes with conventional theories of the arms trade.

Pakistan: Acquisitions Overview

In 1981 Pakistan received 40 American F-16 A/B aircraft (28 fighter, or "A," aircraft, and 12 trainer, or "B" aircraft). Pakistan made a concerted effort to acquire, starting in 1986, an additional 60 F-16s, but delivery was repeatedly blocked by American non-proliferation legislation. The Pakistani case represents perhaps the simplest type of goal attached to arms acquisitions: political approval and international approval. At the same time, Pakistan engaged in the most transparent form of bargaining to acquire its aircraft: reverse leverage based on proximity (to Afghanistan) and a nuclear weapons program, without any economic, political or significant military benefits to offer their supplier(s).

Pakistan' Fighter Aircraft I: The Military Dimension of Security

The Pakistani case provides a positive and a negative case of reverse influence. While it was successful in acquiring F-16 fighter planes in 1981, its efforts from 1986 onwards to acquire 60 more were not, despite the use of what might be considered the ultimate trump card: the Pakistani nuclear weapons program.

The U.S. has long offered two contradictory arguments about its arms deliveries to Pakistan. The doves' position was to point out that Pakistan was developing a military nuclear program and that to send conventional arms would be tantamount to condoning it. This point of view argues that arms must be withheld so as to press nonproliferation goals; this view was inscribed in U.S. law in at least four acts and amendments passed between 1975 and 1985, but most strongly in the Pakistan-specific Pressler amendment.²³

The countervailing and largely predominant argument, the hawkish position (cloaked, ironically, as a dovish stance in that it claims to be nonproliferationist), argued *for* sending advanced conventional weapons to Pakistan in an attempt to deter it from pursuing the nuclear option. An "unarmed" Pakistan, according to this view, would feel vulnerable, perhaps demoralized, and thus would seek to develop nuclear weapons. Pakistan itself repeatedly played on these U.S. fears, especially under the first Bhutto (Zulfikar Ali Bhutto, president 1971-1977, vowed that his country would develop a nuclear bomb even if the Pakistani people had to eat grass). Justifications of the position included arguing that Pakistan was the West's only reliable gateway to the East, Pakistan was a key link to Iran, and Pakistan had been a faithful, democratic ally deserving of U.S. support.

Pakistan (created in 1947, along with India) has fought three wars with India and has been engaged in near-constant skirmish with its much larger

²³ The first US ban on arms to Pakistan, prompted by the Indo-Pak war of 1965 and put in

neighbor. Early on, both states received arms from the U.S., but this supply stopped (temporarily) after the 1965 Indo-Pak war. Pakistan received French and Chinese armaments, and maintained the relatively meager arms inherited from the British. Pakistan has long negotiated for Soviet weapons but never received them. India maintained its more robust British arms inheritance, and after the 1965 war, India and the Soviet Union struck a long and durable relationship, developing trade ties in a number of areas, including arms. The U.S. tended to view a Soviet-supplied India as a useful counter-balance to China. India also acquired new arms from the UK, and periodically negotiated with France, Sweden and other European producers.

After the December 1979 Soviet invasion of Afghanistan, the U.S., under President Jimmy Carter, made an aid offer of \$400 million over two years to Pakistan.²⁴ Pakistan's President Mohammed Zia ul Haq, calling the offer "peanuts" (1980o), said any U.S. military aid must be accompanied by long-term economic aid: the U.S. must prove its "credibility and durability" (Auerbach 1980a); furthermore, he claimed that the U.S. would only gain influence in the region by sending advanced weaponry, including fighter planes (1980o). "You need us more than we need you," a Pakistani journalist said ... and (a Pakistani) government official put it less bluntly when he said 'If we go, the entire Mideast goes for you'" (Auerbach 1980c). Zia tried to place

place that same year, applied equally to India. It was eased starting in 1970.

²⁴ Aid to Pakistan was suspended that same year due to its nuclear program, but the Reagan administration would subsequently successfully argue for waivers to the suspensions due to the situation in Afghanistan.

additional pressure on the U.S. by claiming to have received overtures from the Soviet Union (Bulloch 1980).

Within a week of the Soviet invasion of Afghanistan, Pakistan demanded billions of dollars in American aid and was sharply critical of both India, which abstained from the UN General assembly vote demanding a Soviet troop withdrawal, and the recently re-elected Indian Prime Minister, Indira Gandhi, who refused to criticize the Soviet invasion of Afghanistan (Branigin 1980). Indian officials, countering that the Soviet troops had been invited in (Housa 1980b) and asserted that China was flooding Pakistan with aid (Loudon 1980a). Tension between India and Pakistan again flared, and the invasion presented an opportunity for each state, in effect, to localize the international security environment and jab at the other.

While claiming to have refused U.S. aid in order to maintain its neutrality rather than because of disagreement over the amount (Oberdorfer 1980), Pakistan waited for aid offers from other Islamic states. With none forthcoming, Pakistan countered for a better deal from the U.S. and indicated its preference for increased economic aid and a rescheduling of its annual \$250 million debt payments (Khan 1980). The first mention of F-16 aircraft by Pakistan came in September of 1980, when they argued that their (American) F-86s Sabres were too old to fly; rather than take the F-5E Tiger (a U.S. fighter designed strictly for export) currently on offer, Pakistan expressed interest in the F-16 and F-15 (Auerbach 1980b). These planes represented a new generation in fighter aircraft technology, and the Pakistani request for the F-

16s, which could offer only negligible territorial defense against the Soviet Union, was a bold move intended to test U.S. commitment. Indeed, the planes, once delivered, were rarely deployed along the Afghan border; rather, they were stationed at bases from which they could easily access India's nuclear facilities.

By 1981, with Ronald Reagan in office and the "Soviet threat" still extant in neighboring Afghanistan, the U.S. considered much larger aid packages to Pakistan (Kaufman 1981). The argument that it was key to the Persian Gulf region was familiar, but its role as a *conduit* for arms to Afghan rebels was new. In addition, U.S. Secretary of State Alexander M. Haig, Jr. suggested that "...it was important to remove Pakistan's sense of 'insecurity' by offering substantial assistance and that this might have the indirect effect of persuading Pakistan not to detonate a nuclear device" (Gwertzman 1981). There were, then, three distinct reasons being offered for the need to send arms and aid to Pakistan: for protection of the Persian Gulf; as an inducement to deterrence; and as an arms pipeline. Reagan offered Pakistan an aid and arms package worth \$500 million a year over 5 years (Beecher 1981; Gwertzman 1981; Nossiter 1981).

By June, as a "symbol of the importance the administration places on a strengthened relationship with Pakistan" (Miller 1981) and despite Office of Management and Budget worries over aircraft cost and availability of supply, the U.S. Senate agreed on an exception to American nuclear non-proliferation law and offered the F-16 to Pakistan. The sale, considered "urgent" (Fishlock

1981), was to be immediate and exclusive of Reagan's aid package (1981f), financed instead with additional American military credits.

Though normal waiting time for the F-16 was about three and a half years, Pakistan demanded early -- immediate -- delivery as a sign of U.S. cooperation. Production delays in the U.S. were such that the Department of Defense arranged to buy F-16s from the European producers (Norway, Belgium, Denmark, and the Netherlands) and make an initial delivery to Pakistan from U.S. Air Force supplies. That Pakistan could put such pressure on the U.S. is a clear indication of its reverse influence -- using geographic position and geopolitical particulars to bargain from an enhanced position with a superpower. Further, Pakistan didn't accept Reagan's offer of aid *until* the F-16 early delivery was guaranteed. Pakistan agreed to a \$3.2 billion, 5-year arms and economic aid plan -- additional materiel considered urgent to the situation brought the total up from \$2.5 billion -- once the Reagan administration agreed to the quickened F-16 deliveries; this speed-up was an acceptance condition of the Pakistani government (Auerbach 1981b).

Aircraft as symbols

Indian Prime Minister Indira Gandhi, managing to overlook her own country's ongoing acquisitions for cutting-edge fighters (MiG-23s, MiG-25s, Jaguars, and the then-current negotiations for the Mirage 2000, all discussed in the following section), argued that the F-16s represented a new generation of technology in the region and should be seen as an "offensive move against

India" and a threat to subcontinental peace (Auerbach 1981a). The charge was both typical and fair (though a bit surreal given India's own procurements): could Pakistan's F-16s (dubbed by the Indian press the "monstrous mechanical marvel of the air" (Kronholtz 1981)) repel an invasion by the Soviet Union via Afghanistan? No. They were, rather, a symbol of two things: first and foremost they represented American allegiance to containment (much more than to Pakistan itself), and second they were a symbol which Pakistan could manipulate in its regional arms race with India, a sign of tacit acceptance of Pakistan by the United States. The U.S. would not intervene on Pakistan's behalf were it to enter another conflict with India,²⁵ yet Pakistan effectively used its geographic position, despite (or perhaps in addition to) its nuclear weapons program, to bargain for huge amounts of aid and sophisticated weapons.

Pakistan was actually wary of U.S. intentions in the region, fearing that America under Reagan sought to create a regional sphere of influence to counter the Soviet presence in Afghanistan; it therefore refused to allow U.S. troops on Pakistani soil and limited U.S. basing rights, refusing to put them up for negotiation as details of the aid package were finalized. President Zia explicitly linked early delivery of the planes to assurances that the U.S. had no greater territorial designs in the region and suggested that delays in delivery would undermine that confidence. India was quite right to see the F-16s as India-specific, as the aircraft put most of India's nuclear research facilities,

²⁵ And had said as much in refusing to enter mutual defense treaties with Pakistan.

power generators, defense sites, and other industrial locations within Pakistani range (Kronholtz 1981). By 1985, even the U.S. conceded that most of the equipment intended for deployment against the Soviets in Afghanistan was actually deployed against India: for example, F-16s were based near India (Sargodha) instead of Peshawar, and they were never used against Soviet or Afghani incursions into Pakistani airspace (1985). The planes were inappropriate to the military threat for which they were acquired, both technologically and numerically; Pakistan could have received a greater number of "lesser" planes from a number of countries (something they would later do, as described below). Rather, the F-16s were symbols on two counts: first, they indicated to the world an American presence in the region; second, they signaled both to the international community, and to the people of Pakistan, an American acceptance of the Pakistani regime and perhaps also its nuclear program.

Pakistan's Fighter Aircraft II: The Nuclear Program and the Failed Status Symbol

Pakistan was widely believed to be continuing its nuclear program, understandably with little regard for American non-proliferation law, and despite the American "reassurance" in the form of the F-16s. Nuclear non-proliferation, then, was less important a goal to the U.S. than efforts to fence in the Soviet Union, and Pakistan saw this very clearly.

By 1985 deliveries of the initial 40 F-16s were complete, and in 1986 Pakistan requested 60 more as part of their next aid package (\$4.04 billion over

6 years, with \$1.74 billion in FMS credit (1986a)).²⁶ In December, 1987, President Ronald Reagan ignored all available evidence and declared Pakistan nuclear-free, paving the way for continued military and economic aid. Eleven F-16 A/Bs were slated for sale to Pakistan at a cost of about \$15 million each as attrition replacement (1988c); with spares and support equipment, the total cost was about \$256 million, or \$23 million apiece (1988a; 1988b). Pakistan also requested an additional 40 F-16s. Senator Dennis Deconcini argued that since the Soviets were beginning their withdrawal from Afghanistan, there was no reason to send arms to Pakistan. Yet President Zia pressed for modern equipment: "How can you fight a nuclear submarine or an aircraft carrier with a bamboo stick? We have to match sword with sword, tank with tank and destroyer with destroyer ... the situation demands that national defence be bolstered and Pakistan cannot afford any cut or freeze in defence expenditure, since you cannot freeze threats to Pakistan's security" (quoted in Hussain 1988). Note that the purported enemy, the Soviet presence, deployed neither nuclear submarines nor aircraft carriers in their Afghanistan campaign; it was a geographic impossibility. India, however, was engaged in efforts to acquire both a nuclear-powered submarine and a second aircraft carrier. Clearly, then, Pakistan perceived and was arming against an Indian, not a Soviet, threat. The Soviet presence in Afghanistan provided Pakistan with a means for securing military ends, ends which were directed towards India.

²⁶ Foreign Military Sales, or FMS, are government-to-government transactions, with the Department of Defense contracting with the manufacturer for the equipment and providing

The nuclear question, however, continued to shadow Pakistan and to threaten the sale (Starr 1989). The Department of Defense, which stood to gain financially from all FMS sales due to the overhead it charged, argued to Congress that Pakistan could absorb the additional F-16s. Further, argued the Pentagon, if Pakistan did not get American planes they would likely turn to France for Mirage 2000s; this Mirage threat was confirmed by Deputy Assistant Secretary of Defense for Near Eastern and South Asia Affairs Edward Gnehm, who said that a Pakistani move to France would "lead to a decrease in U.S. influence with the access to the key Pakistani leaders" (Deam 1989).

To bolster Pakistan's case in the U.S., Prime Minister Benazir Bhutto traveled to the U.S. and, appearing before a special joint session of Congress, made her now-famous declaration: "Speaking for Pakistan, I can declare that we do not possess nor do we intend to make a nuclear device" (quoted in Silverberg 1989).²⁷ She was overwhelmingly warmly received (after being introduced to a special joint session of Congress as Prime Minister of India by Senator Jesse Helms), and President George Bush notified Congress of his intention to send 60 F-16s in a deal worth \$1.4 billion (1989c). Subsequently, however, reports from German intelligence indicating that Pakistan had developed modifications for its current F-16 fleet that made the aircraft

training, additional equipment, and service as well as charging overhead and underwriting the deals (Lumpe and Donarksi 1998).

²⁷ During that same trip to the US, Bhutto was shown mock-ups of Pakistani nuclear devices by American intelligence agents. It is likely, though not certain, that she had not been kept informed of the status of Pakistan's nuclear weapons program by her own military advisors.

capable of carrying nuclear weapons (1989e) were made public. Opposition in the U.S. Congress began to grow, and a serious threat to the sale came from legislation introduced in the House by Rep. Ted Weiss (D-NY) to stop it on the basis of its potentially destabilizing effect on U.S.-Indian relations; suggesting that the Bhutto administration wanted the aircraft to appease the restive military, he asked, "How can the Administration argue that Pakistan now needs 60 F-16s -- 20 more than the number required during the peak Soviet threat?" (1989b; 1989d). U.S. Assistant Secretary of State for Near Eastern and South Asian Affairs Teresita C. Schaffer countered with a familiar argument: "... a Pakistan with credible conventional deterrent will be less motivated to pursue a nuclear weapons capability" and it will ensure that citizens feel their democracy is safe (1989a). In other words, the planes would in fact stabilize the region by making Pakistan more confident.

In 1990, President Bush failed to certify Pakistan for further U.S. aid, interestingly not due to proliferation issues but over alleged abuses of civil liberties as well as concerns arising from the dismissal of Benazir Bhutto (Silverberg 1990). Thus, their second batch of F-16s was embargoed, along with other military aid. Following this aid cut-off, many Pakistanis urged their leaders to explode a nuclear device, "to send a 'hands off Pakistan' signal". The U.S. would, they felt, be compelled to lift sanctions so as to keep Pakistan from sending proven nuclear technology on to the Middle East and North Africa, and a normalization of ties and a strengthening of Pakistan's position and prestige (Ali 1990) would follow.

Pakistan continued to make payments on the embargoed aircraft until July 1993, when they withheld a \$93 million payment. They also negotiated for French, Russian and Chinese fighters, ultimately successful with the last.

In early 1994 the Clinton administration considered lifting the Pressler amendment to the Foreign Assistance Act, and thus the embargo on arms to Pakistan. Under the proposed new arrangement, arms could be sold to Pakistan if it complied with restrictions on its nuclear program, specifically a cessation of production of nuclear weapons-grade material followed ultimately by elimination of weapons of mass destruction and ballistic missiles, all to be verified through inspections. The administration further recommended regional talks and a test ban, and asked India to comply with these terms also. The request, which India denied due to the inspection clause, prompted one Indian diplomat to remark that, "Maybe they think they can get it for free, because we are not aware of any programs [such as the F-16 deal] for India" (Smith 1994). When Pakistan balked at the weapons and fissile material rollback proposition, the administration backpedaled to suggestions merely of verification and inspections of the nuclear program. With the prospect of a sale drawing near, India – where the F-16s were widely regarded as "acceptance of Pakistan as a full-fledged nuclear power" (Dahlburg 1994) -- threatened deployment of ballistic missiles in response to new F-16s. In the end, Pakistan rejected the Clinton administration's offer, because it in no way included India in the inspection regime (Bokhari 1994). As Pakistan then turned to other sources for weapons (for example, 1960s-era

mothballed Lebanese Mirage III-Cs, and Soviet fighters from Central Asian Republics), Pakistani leaders argued that any rollback of Pakistan's nuclear capability was a threat to its sovereignty and security (1994). Finally, in August 1994, Pakistan gave the U.S. an ultimatum: deliver the F-16s or return all money paid towards the purchase thus far. As of this writing, some of the F-16s sit in storage at Montham Air Force Base ("the boneyard"), some have been sold to New Zealand,²⁸ and Pakistan has received a partial refund on monies paid towards the aircraft.

Concluding Remarks: Pakistan

Pakistan's leverage for advanced weapons ran out when the Soviet troops left Afghanistan: Would a re-evaluation in Pakistan of security and sovereignty have allowed the state to get the additional F-16s? Only if it had dropped the nuclear option, which they wouldn't do for reasons of regional politics. But what is interesting is that Pakistan never made any pretense of arguing that the planes could be used in any springboard, or industrial development, context, which the other states in this study – Spain, Greece, and India -- clearly and repeatedly have done. Pakistan's ability, or power, to get the first batch of 40 F-16s -- was predicated solely on geographical position and superpower politics. In fact, dependence on a definition of the sovereign state which is out of synch with the hegemonic norm (regardless of the double-standard inherent in it) has hampered Pakistan's subsequent attempts to

²⁸ After being shopped around to the Philippines, Indonesia, Thailand, and Taiwan.

acquire Western conventional weapons (though they have received Chinese weaponry), and, since the May 1998 detonation of a nuclear weapon, the country's standing more generally.²⁹ The exercise of specific power did nothing to ameliorate any kind of inequality. Rather, the more successful efforts have been those linking security and other requirements.

I want to stress that my conclusions are not normative or prescriptive: I do not want to contend that Pakistan should or should not have followed a particular course. Nor, despite my obvious interest in the subject, do I mean to imply that these fighter planes deals alone constitute *the* explanation of a complex process of state-building within the world-system; they are a lens through which to view that process. Rather, I want to point out the use of one level of power within the framework of a higher level which is itself a product of structural inequality.

In the following two case study discussions, non-military goals emerge as crucial to the military acquisitions process. For Spain, concrete linkages with Western Europe and the United States, through entry into the EEC and NATO, were in the forefront of their ongoing acquisitions process. For Greece, strengthening or re-establishing links to the same forums, the EEC and NATO, were also a prominent part of re-arming. At the same time, both states negotiated outcomes meant to boost their own economic development goals, such as offsets and limited production rights.

²⁹ All US sanctions imposed on Pakistan and India following the detonations were raised in

SECURITY IN A MILITARILY SECURE ENVIRONMENT: SPAIN AND GREECE

Spain and Greece are two cases in which the growing importance of linkages to broad, international forums for semi-peripheral state is clear. The larger role of what were once seen as concessionary terms in aircraft deals, necessary to both buyer and seller to close a deal are apparent, as well. The Spanish and Greek cases point to the interdependence of buyer and seller, to the importance of reverse leverage to buyer states and the continued need for suppliers to supply arms abroad, and to the changing nature of high-profile aircraft deals as tools for confirming transnational integration.

Spain: Acquisitions Overview

Throughout the 1970s, Spain took delivery of French Mirage F-1s; it ordered fifteen F-1Cs in 1972, thirty more in 1976, and acquired twenty-two F-1Es in 1978. During the latter part of the 1970s, Spain negotiated with four suppliers, and finally ordered, in 1983, the American F/A-18 Hornet. It went on to acquire an additional seventeen F-1Cs in 1994 and twenty-four more F/A-18s in 1995. Closely linked to Spain's fighter aircraft acquisitions was its entry into NATO, which was controversial domestically, and into the EEC/EU, which was not. In addition, Spain hammered out a deal that included substantial benefits to a wide range of its industries. In the discussion that follows, I will concentrate on two primary points in Spain's acquisitions. First,

late 1999.

the interplay between geo-political pressures (in the form of U.S. basing needs), transnational goals (entry to the EEC/EU and NATO), and domestic concerns (for new fighter aircraft, opposing positions on NATO membership) make clear the linking of the three as a national security issue within Spain. Second, Spain effectively translated this national security issue into a broader economic concern by using reverse leverage – its geographic and historical particulars – to bargain for industrial programs and favorable terms of transfer.

Spain, Integration, and the Economic Dimension of Security

Between 1972, when its first orders for French Mirage F-1s were placed, and 1996, when it received more F-1s (via Qatar) and American F-18s, Spain acquired a modern air fleet based on both French and American planes. This time period saw Spain's entry into the North Atlantic Treaty Organization (NATO, 1982), the European Economic Community (1986, later the European Union), as well as its transition from a relatively isolated and autarkic authoritarian regime under Franco to a successful democracy and neo-liberal market economy. Further, during this period Spain turned towards an Atlanticist orientation in its foreign policy and saw its status as a strong middle power grow.

Spain emerged from World War II a pariah state. Its neutrality, which was widely viewed as having been both opportunistic and implicitly (at times explicitly) pro-Axis, combined with its authoritarian regime, left it reviled by

the former Allies. It found some support from Latin American and Arab countries, with whom it shared a long history as well as continuing good relations. It was not included in the Marshall Plan and thus pursued a policy of autarkic development. Though Spain applied for membership in the UN, it was repeatedly rebuffed until 1955, when it was accepted primarily on the basis of Franco's anti-communism and its stagnating economy. The latter was seen as potentially destabilizing, thus making Spain a possible spot for communist takeover.

Spain's location on the western end of the Mediterranean has long been strategically important to American and European security interests. Unable to join NATO until 1982, Spain signed bilateral security and cooperation agreements with France, Portugal, Germany, and most significantly, the United States. The first of these Spanish-U.S. deals, signed in 1953, gave the United States basing rights at five sites in exchange for more than \$1 billion over eight years. The deal was widely viewed in Spain as a breach of Spanish sovereignty, which was in fact relinquished on the base territories until 1970: the U.S. had no obligation to inform Spain of any of its plans involving the bases and Spanish law was not in effect on base territory. Further, both inside and outside Spain they were viewed as acceptance of, if not outright support for, the Franco government. Basing talks were undertaken again in 1962-1963, 1968-1970, 1974-1975, 1979-1981, and Spain successfully came to link continued basing rights for the U.S. not only to its defense concerns in the

narrow sense of weapons and military aid, but to security more generally through its NATO and EEC entry bids and industrial expansion efforts.

Spain's relationship with the Soviet Union through this period bears some mention, for unlike many other Western European states and in spite of Franco's strong anti-communist sentiment, it was not an antagonistic one. The Soviet Union saw the U.S. bases in Spain as an encirclement attempt and wanted to see Spain remain out of both NATO and the EEC. Spain and the USSR held similar positions on such issues as Cuba, the Arab-Israeli conflict, and decolonization, and the Soviet Union viewed Spain, perhaps optimistically, as a geographically key neutral state or potential ally: the USSR was well aware of Spain's long-standing good relations with the Arab world and Latin America and hoped that these might be exploited in any potential future East-West conflict (Pollack 1987). However, by the early 1970s it became clear that despite closer Spanish-USSR links, Spain would not cancel its treaties with the U.S.. In 1977, Spain and the Soviet Union reestablished official diplomatic ties, and throughout the early and mid-1970s the two countries moved closer in terms of mutual recognition, trade, and foreign policy outlook, signing trade agreements in 1972 and 1984. By the early 1980s, the Soviet Union was one of Spain's most dynamic trading partners, increasing trade not only in such traditional export commodities as steel and agricultural goods, but also in oil and high-technology (Pollack 1987:65-66). With respect to the U.S., Spain cleverly manipulated its relationship with the USSR so as to upgrade its importance despite its newcomer, middle-power status.

Spain's Fighter Aircraft, I

In 1969 Spain embarked on an acquisitions program to upgrade its fighter aircraft fleet. At the time, it was negotiating with both the United States over the renewal of basing rights, and with other Western European states for the opportunity to enter the Common Market. In 1970 Spain was granted preferential status with the Common Market so as to improve economic and diplomatic relations and it renegotiated basing deals with the U.S.. Spain considered both American and French planes before settling on the French plane, the Mirage F-1, in large part because France linked the sale of the planes to its support for Spain's Common Market bid, while the U.S. failed to offer a plane which Spain thought was sophisticated enough.

Spain and the United States undertook basing negotiations again in 1975, and the U.S. was lobbying, over European opposition, for Spanish entry to NATO. The long-standing American position was that Spain should enter the collective security group, rather than maintain a series of bilateral treaties, but its European counterparts were wary of Spain's authoritarian past. At the same time, the American F-4 fighter plane was being considered by the Spanish forces, and the YF-16 (the Y indicates that the plane was still in the development stage) was put up as in effect a teaser to encourage Spain to evaluate a NATO bid rather than insist in bilateral treaties. The F-4 was ultimately rejected, with the cancellation of a \$250m, 24 plane order, as too expensive and too old, and Spain opted for 15 more Mirage F-1Cs.

In exchange for five more years of basing rights, Spain initially settled in 1975 for \$500 - \$700m in American military equipment, or half the amount they requested. Spain had also wanted into NATO and a formal bi-lateral security assistance treaty with the U.S., neither of which was granted. U.S. Secretary of State Henry Kissinger called the access offered by the Spanish bases a key U.S. and Western alliance priority. Following Franco's death in October, the deal was renegotiated by the new centrist government, led by Prime Minister Adolfo Suarez Gonzalez. Suarez Gonzales and the recently crowned king, Juan Carlos, hoped to capitalize on the surge in American goodwill to move closer to Europe and to use the bases as leverage to follow through on promises to a restive military to modernize (Giniger 1975).

Thus in January Spain and the U.S. signed a friendship and cooperation treaty, the Spanish-American Mutual Defense Treaty, which included another five years of basing rights and \$1.2 billion worth of civil and military aid. The treaty also allowed Spain the opportunity to acquire military equipment on a par with NATO's, including the F-16, and called for increased cooperation between the two on matters of South Atlantic defense (Novais 1976). The deal was approved by the Senate Foreign Relations Committee with only two dissenters; Senator Stuart Symington³⁰ (D-MO) argued "that Spain should pay the United States for operating the bases and the United States should demand the right to transport nuclear weapons there": Spain refused to allow

³⁰ Whose eponymous 1975 amendment limited trade with known nuclear weapons proliferators.

aircraft and naval vessels carrying nuclear weapons the right to land, including on the American bases (1976).

Spain's Fighter Aircraft, II

In the late 1970s Spain launched the competition for its Future Combat and Attack Aircraft (FACA). The American planes being considered were 72 General Dynamics (GD) F-16As and 12 F16Bs, and 84 McDonnell Douglas (MDC) F/A-18 Hornets. The F-16 is a single-engine, lightweight fighter aircraft optimized for air-to-air and air-to ground missions, and the F-18 is a slightly heavier, twin-engine, aircraft carrier-capable plane, also optimized for air-to-air and air-to-ground missions; both planes (along with the much larger F-15) were at the cutting edge of American fighter technology. Other planes Spain was evaluating were the Panavia Tornado (Panavia is a pan-European consortium comprising British Aerospace, the German company Messerschmidt-Bolkow-Blohm [MBB], and the Italian company Aeritalia), and the French Mirage 2000. By 1980 the competition had seemingly narrowed to the F-16 and the F-18, with the Mirage-2000 deemed too expensive and the Tornado thought too much of a change for the Spanish forces.

A military decision in the first FACA round was set for early 1981 (and initial talk was of a need for 144 planes), while the political decision was not likely to be taken until the fall so as to complete favorable negotiations, namely maximum offsets and co-production rights. Spain's need for 144 new fighter aircraft was based on its anticipated new role in NATO (Spain was

slated to join the alliance in 1982), which included safeguarding communications and allowing deployment and the landing of supplies on its territory, and control over the straits of Gibraltar and the western Mediterranean. Its domestic need for the aircraft included support for ground troops in the eventuality of war in North Africa (Marquina 1991). Thus, a controversial and uncertain prospect, NATO entry, was beginning to define Spanish arms acquisitions plans, and the choice of plane would come to resonate both with the supplier and with the Spanish population in mind.

The eminent renewal of the Spanish-American Mutual Defense Treaty and discussions in the Spanish parliament of a NATO bid delayed completion of the deal. The expiring base treaty was worth \$1.4 billion, but Spain now sought more money, and was especially interested in technology transfer, which it saw as key to building its own industry (1981b; 1981a). A reporter for MILAVNEWS, a weekly security and military affairs newsletter, remarked that "(n)egotiations for renewal of the base treaty ... are inextricably linked with Spanish efforts to achieve the optimum terms for entry into NATO and the EEC, and the government in Madrid is making it clear that it is seeking new military relationships with both the U.S. and the Western alliance" (1981b). The current government, led by the Union of the Democratic Center, supported NATO entry, but the leading opposition party, the Spanish Socialist Workers' Party (PSOE), was strongly against joining. The Spanish military remained less democratized than other parts of the state, and it continued to dominate foreign policy. Thus, Spain's government was eager to integrate the

armed forces into NATO so as to provide the military with concerns outside Spain, to provide an outward focus rather than strictly a domestic one. Playing on Western fears of Spain's political past, Foreign Minister Jose Pedro Perez Llorca said that Spain's military needed new U.S. and Western ties " ... that would give the Spanish military an international role and responsibility and help keep it out of domestic politics" (Getler 1981). American assistance with Spain's military equipment, he said, would strengthen Spain as a partner and build its fledgling democracy. This theme, which linked advanced weapons to Spain's political future as negation of its past, was repeated many times over by those within the Spanish government and political elite who backed the NATO bid. Indeed, the choice of American weapons seemed a calculated attempt to please Spain's key backer in NATO, membership into which had been laid out as a key step to European integration by the leading party. Once the choice of an American plane was obvious, the final decision would rest on which firm, McDonnell Douglas or General Dynamics, could come up with the most attractive package.

MDC seemed to clinch a \$3 billion deal for 84 F/A-18s (this higher figure includes spares, equipment, and training, while the \$1.8 billion figure discussed below is the fly-away cost, or the cost for the aircraft themselves) with the June, 1982 signing of the Letter of Intent.³¹ This deal was struck despite strong Spanish Socialist Workers Party (PSOE) pressure to opt for a European plane. The decision was in part a military one (the F-18 accepts

newer avionics and weapons and flies with two engines, while the F-16 has only one engine), in part a political one, as mentioned above, and, once that pressure was successfully applied, an ambitious attempt on Spain's part to obtain offsets, which it did quite successfully (Burns 1982a; Debelius 1982). *International Defense Review* notes that "the contract had to provide for an extensive industrial offset program, including co-production of components, technology transfer, development and assistance to Spanish industry and service sectors, and facilities for maintenance of the aircraft in Spain" (1982h). Deliveries of the aircraft, with a unit cost of \$22.6 million (ordered down from the earlier \$24.1 million price by the U.S. Department of Defense) were to take place between 1986 and 1989, and MDC agreed to try to obtain offsets for Spanish industry worth \$1.8 billion, 100% of the cost of the aircraft; \$400m of this work was earmarked for Spanish defense firms in an attempt to help boost the Spanish aerospace industry (1982e; 1982f; 1982i).

The eminent (October 24, 1982) election delayed signing of the Letter of Acceptance and threatened the deal. The Socialists, likely to win, were calling for a reevaluation of the fighter deal, the basing deal, and Spain's entry to NATO. The Socialists favored the pan-European Panavia Tornado, arguing that, at a lower per unit cost, it met Spain's military requirements given that its needs were in fact quite limited (though the military disagreed), offered more offset and technology transfer opportunities, and provided a good bargaining chip for Spain in the bid for Common Market entry (1982c; Burns 1982b).

³¹ Generally, letters of offer, intent, acceptance, and procurement are signed; bargaining can

Furthermore, the PSOE hoped to make CASA, Spain's state aerospace industry, a partner with Panavia. As the time to sign the letter of acceptance drew near, the Spanish government expressed increasing dissatisfaction with MDC's industrial offsets. Spain's share of aircraft manufacture couldn't be increased for technical reasons, and MDC countered with an offer to market Spanish shoes valuing \$100 million in the U.S. over ten years (1982a; 1982g).

Despite the threats the PSOE made, upon coming to power in December, 1982 the Socialist government quickly (embarrassingly so, according to the Spanish press) signed on to the letter of acceptance. In March Spain completed their \$18.9 million deposit on the American planes with a \$10 million payment. Yet the Tornado continued to be a challenger to closure of the F-18 deal, or at least was touted as such by the PSOE government, which entered into discussions with Panavia once again. MDC promptly increased offsets and technology transfer to the Spanish aerospace industry from 20%, an amount also offered by Panavia, to 30% of the total purchase. The end of May, however, brought no surprises and Spain "opted" for the already-settled-upon F-18 -- the major change to the contract was a reduction by 12 in the number of aircraft, which shaved \$360 million off the total -- in a 74-plane, \$2.6 billion dollar deal (1983a; 1983b; 1983c; 1983h; 1983i; 1983j; 1983k; 1983l; 1983m).

In regard to demands in exchange for basing rights, Spain was negotiating from two points of view: both as if it were and were not an

take place at each of these stages.

alliance member. Thus it expected the right to acquire sophisticated military equipment and valuable industrial offsets, as did other NATO member states. Further, while the United States argued that its Spanish bases should be used in an American Middle East context, such as with the rapid deployment force, Spain resisted, arguing that its potential upcoming role as a NATO member meant that the bases must be used in the context of the Western alliance (Graham 1982). At the same time, Spain requested substantial aid and bilateral American defense commitments, as if it were not within NATO, effectively deadlocking the talks. "The negotiating sessions continued in this vein, until the Spanish delegation realized that its claims to win comprehensive military aid loans, a security clause to cover the territory of both countries in case of attack, technological transfers and joint production of military material would be very difficult to achieve outside the context of NATO" (Marquina 1991:30). Thus in September 1981, Spain's parliamentary body, the *Cortes*, approved Spain's bid to enter NATO, subject to a number of conditions, including continuing Spanish commitment to non-nuclearization, progression on the EEC talks, and efforts to regain sovereignty over Gibraltar.

The PSOE had made NATO unpopular with the Spanish public, in large part by associating it with war and nuclear weapons. The party had campaigned on a platform of leaving NATO and removing American bases from Spain, but upon winning the October 1982 elections, no mention was made of the latter. Regarding the former, PSOE froze Spain's integration into the military command and pledged to put the membership issue up for a

referendum. Gonzalez in fact was committed to Spanish membership in NATO, despite his party's position while in opposition, in recognition of the need to democratize and modernize, even to placate, the military. The PSOE concluded that to leave NATO would weaken their bargaining position over bases and European Economic Community membership. Thus within Spain and outside it, EEC and NATO membership – ostensibly two separate issues – were, for all intents and purposes, linked as one key foreign policy objective (George 1991:76). According to two political analysts,

“Gonzalez ... seems to have employed Spanish participation in NATO ... as a device to try and break the stalemate in Spain's negotiations to enter the European Communities... His affirmation, in Bonn, of solidarity with the NATO decision to deploy cruise missiles seems to have emanated from a wish to ensure the backing of the West German government in easing Spain's accession to the EEC. Indeed, on his return to Madrid, he is reported to have indicated that the exact wording of the proposal in a national referendum on NATO could depend upon the progress of negotiations with the Common Market” (Paul Preston and Denis Smyth, *Spain, the EEC and NATO*, Chatham House Papers 22 [London: Routledge and Kegan Paul, 1984:77-78] quoted in (George 1991:96-97).

The EEC Foreign Ministers agreed that Spain's case clearly involved political as well as economic concerns and that to delay negotiations could engender more anti-NATO feelings within the PSOE (George 1991:97). Terms for EEC membership were finally solidified once it was realized that this might strengthen the PSOE within Spain, now firmly within NATO. Spain (and Portugal) entered the EEC as full members on January 1, 1986, two months before the Spanish referendum on NATO membership.

In Spain, NATO membership was not popular, and the PSOE had campaigned on holding a referendum on remaining in the alliance. By the time of accession to the EEC, however, the PSOE was committed to remaining in NATO. Heated political debate within the country continued, and it was not at all clear which way the vote would end. Thus the 1986 referendum was worded in a confusing manner,³² and introduced by a statement indicating the government's conviction that Spain remain in NATO. Held March 12, 1986, the referendum passed with 53 percent of the vote. According to Marquina (1991:42), it was less a referendum on whether to remain in NATO than on how to stay in. After approval, PSOE's new Joint Strategic Plan outlined military objectives which were in line with those of NATO. Included in this plan were modernization of the forces, a delinking of the military from the governing body, and an outward orientation in military policy, such as that provided by NATO membership.

Traditionally the Spanish military-industrial complex has produced small, light arms. While the industry has also suffered from a lack of trained personnel, Spain has been involved in the pan-European Eurofighter, among other projects, as a means to upgrade industry. It was small and didn't exert the same kinds of pressure on the state that similar concerns in other states regularly did. At the same time, the *Cortes* (Spain's parliamentary body) continued to remain outside the loop in matters of military affairs: "Important decisions such as the purchase of 72 F-18's were explained to the *Cortes* after

³² "Do you consider it right for Spain to remain in the Atlantic Alliance on the terms set out

they had already been made" [by the Minister of Defense] (Marquina 1991:44). Thus two loci for acquisitions pressures which are key factor in both political economy and national security theories, industry and legislative bodies, were not central to the Spanish decision.

Rather, the key forces behind the F/A-18 deal were integrationist, both American and Spanish. Executive powers – King Juan Carlos and the Prime Minister -- in Spain recognized that they could effectively a) link modern military equipment to NATO membership on favorable terms³³ and domestic stability vis-à-vis their key suppliers; b) link NATO membership to EEC membership, again on favorable terms,³⁴ at home; c) link the fighter planes acquisition program itself to the basing issue to garner attractive pricing, industrial offsets, and technology transfer; and d) link the three above together as a crucial issue of national security for the Spanish state. Further, the program of military modernization undertaken by the PSOE was in fact an attempt to depoliticize the military and to reinforce democratic institutions. "NATO membership [was], within this context, both a scheme to make the Spanish armed forces more efficient and to take their minds off the internal political arena, making them instead share responsibility for the collective 'defence of Europe' and a modern, democratic value-system" (Pollack 1987:121).

by the government?" in (George 1991:76).

³³ In particular, Spain entered as a political member only. Like France, they didn't join the allied military command structure until 1996. Spain did, however, quickly acquire a prominent leadership role, and NATO's Secretary General until 1999, Javier Solana, is Spanish. Solana now heads the European Union's common defense effort.

Europe had already been an important market for Spain, both for imports and exports, and this importance evolved after Spain's accession to the Community into what Pollack terms a dependency (Pollack 1987:145-146). This is especially true in areas of capital and high-technology. At the same time, Spain saw at one time that EEC membership might give it a forum to promote its independent policies, particularly to shift the focus from one of East-West conflict to North-South cooperation; however, this desire has faded as the limits to this strategy have been realized.

Concluding Remarks: Spain

In seven years of negotiations for fighter aircraft, Spain effectively used its geographic position and political history, both key variables within the geopolitical perspective, to ensure a) favorable terms for its entry into the Western security and economic alliances, b) continued supply of American weapons and aid, and c) an estimated 7000 new jobs in nearly 800 firms, plus assistance with scholarships, technical training, and cultural promotion aimed at improving the perception of Spain in the United States.

A more subtle reading suggests that it was Spain's willingness to use the weapons in this way -- it had no clearly identified enemies, military goals, or strategies except as outlined by the U.S. and NATO -- that allowed it to be so "rewarded." By staking its security definition on non-military underpinnings in its linking of the planes to industrial benefits and democracy

³⁴ Especially regarding agricultural products.

consolidation, Spain enhanced its sovereignty as defined by the current hegemonic power. Spain was, in effect, capitalizing on two factors long held by realists as determinative to reach an rather unexpected outcome, a new definition of national security. Spain was not “securing” for military threats on its horizon; rather, it was securing for a transition towards a more liberal, Europe-oriented capitalist state.

The Greek case, which follows, offers another example of a semi-peripheral state recasting controversial development and alliance goals as part of national security, as well as using reverse leverage to achieve them.

Greece: Acquisitions Overview

Greece has long housed American and NATO bases, and it joined NATO in 1952. In 1953 Greece and the U.S. signed a thirty year mutual defense agreement, which ensured continued U.S. access to bases and continued Greek access to American military aid, including arms, and economic aid. Less dependent on the U.S. than Spain for weaponry, however, Greece has since the 1970s had multiple West Bloc suppliers, including France, Norway, and the Netherlands, and has also received arms from Iran and Jordan. In 1974, Greece ordered forty Mirage F-1Cs, and in 1985 it placed a split order for eighty advanced fighter aircraft, forty F-16Cs and forty Mirage-2000s. In 1993 it picked up its option for an additional forty F-16Cs. This split order enabled Greece to affirm its status as both a European state and a member of NATO and to ensure good terms for the deals. Like Spain, Greece was able to use its

geographic position, and the presence of American and NATO bases on its territory, to negotiate for favorable terms that included substantial offsets and production rights, as well as aid to industry more generally.

Greece: Security Concerns, European Integration, and Industrial Development

It is important to note the ongoing efforts to consolidate Greek sovereignty and the Greek identity as a factor in its acquisitions strategy. An independent state since 1830, Greece has actively sought to establish a European, and more specifically a Western European, identity. As part of first the Byzantine and then the Ottoman empires, Greece was effectively bypassed by a number of significant Western European traditions, including some of the economic transformations the Industrial Revolution and the political transformations associated with the French Revolution (Clogg 1992). A century and half after gaining independence, Greece, having been incorporated for strategic reasons into NATO, was making a political bid to validate Europeanness by pursuing membership in the EEC/EU.

In 1947, the Truman Doctrine ensured that Greece would receive significant amounts of U.S. military and economic aid. In exchange, Greece granted the U.S. basing rights for its Mediterranean fleets and was a key Southern European member of the NATO alliance. In 1961 Prime Minister Konstantin Karamanlis negotiated Greece's eventual accession to the EU, with eligibility originally slated for 1984, by hammering out an association agreement with the European Economic Community (Clogg 1992:154). This

agreement was a concrete attempt to solidify Greece's place in Western Europe.

Greek foreign and defense policy have been shaped by its tense relationship with Turkey. Particularly since *détente*, tensions between the two states have resurfaced as the East Bloc has receded as a common threat. Thus any discussion of the politics surrounding Greek defense acquisitions includes a discussion of Turkey, especially as regards Cyprus.

While relations with Turkey have historically been charged, they have flared over Cyprus at key moments. In 1955, a segment of the population of Greek Cypriots, comprising 80% of the island's population, began insisting on union with Greece (*enosis*); the island was at the time under British control. Turkey was opposed to *enosis*, and Britain showed some support for the Turkish position in an effort to blunt Greek Cypriot demands for union with Greece. In 1959 the island was granted semi-independence, and this status was formalized in 1960. The arrangement left Turkish Cypriots, about 18% of the population, with control over 30% of government posts and parliament seats (Clogg 1992:154). Britain, Greece, and Turkey were all obligated to ensure that the treaty held, and Britain received indefinite sovereignty over two basing areas on the island. This arrangement, particularly the proportions of representation set aside for each group, laid the groundwork for future confrontation on the island.

Between 1967 and 1974 a military junta ruled Greece; the Colonels, as the junta was known, had come to power in a coup led by three officers (Col.

Georgios Papadopoulos, who was later Prime Minister, Col. Nikolaos Makarezps, and Brigadier Stylianos Pattakos). The Colonels claimed their takeover of power was necessary to save Greece from Communism and a perceived threat to civil order (Veremis 1997). The seven-year regime was characterized by brutal and repressive tactics, and while NATO member states vocalized some protests, none was willing to condemn actively the government of the Colonels. "Moreover, the American administration, seen by many Greeks as having been instrumental in installing the dictatorship in the first place, ... was prepared to offer aid and comfort to a regime that it saw as a bastion of pliant stability in an increasingly volatile eastern Mediterranean" (Clogg 1992:165).

Greece's 1974 withdrawal from NATO's military command structure was precipitated by events in Cyprus. In late-1973, Turkish claims to oil in parts of the Aegean claimed by Greece as its continental shelf occurred at the same time as a shift to the right in Greece's military junta. In an effort to strengthen the government's standing by uniting Greece and Cyprus, Prime Minister Dimitrios Ionides tried to force the president of Cyprus, Archbishop Makarios, to pledge allegiance to Greece. The move was in clear violation of the 1960 agreement, and fears of an impending Greek annexation of the island prompted a Turkish invasion on July 20, 1974. Makarios demanded the removal of Greek troops, prompting Ionides to stage the coup, carried out by *enosis* supporters within Cyprus, that forced Makarios' departure from the island. War between Greece and Turkey was averted when Greek officers

refused to attack Turkey. After the failure of the coup and the invasion of the island by Turkey, Greece's junta transferred power to the politicians rather than declare war (Veremis 1997), and Makarios returned to power in December, 1974. When Greece's military regime finally crumbled, Konstantin Karamanlis, Prime Minister from 1955 to 1963, returned from self-imposed exile to take over as Prime Minister once again. It was he who pulled Greece out of NATO's integrated military command, arguing that if its allies could be of no greater assistance to Greece in settling the dispute, Greece could not remain in an organization in which Turkey also was a member. Karamanlis successfully returned Greece to democracy, and would eventually guide Greece's return to NATO, in 1980.

Disputes continued over the continental shelf, oil rights, air-traffic control, and Turkey's occupation of the northern part of Cyprus. Years of spending on the military left the Greece to which Karamanlis returned with a poorly developed infrastructure (Clogg 1992:176). Clogg argues that Karamanlis' primary policy concern was EU entry. Karamanlis wanted Greece to enter ahead of the scheduled 1984 timepoint; he successfully moved the entry date to January 1, 1981. His enthusiasm for the EU was political rather than economic, and the same was true for Greece more generally. "An unspoken assumption underlying the enthusiasm of many Greeks for Europe was that membership would somehow place the seal of legitimation on their country's somewhat uncertain European identity: after all they habitually spoke of travelling to Europe as though Greece did not form part of the same

cultural entity" (Clogg 1992:177). Greece did, however, benefit economically from membership, particularly in rural areas, due to subsidies and economic aid.

In 1981, Andreas Papandreou, a Socialist, took over as Prime Minister. While in opposition, Papandreou had called for a pullout from both NATO and the EU, closure of American bases on Greek territory, and a border guarantee vis-à-vis Turkey. Notes Veremis, "(s)hortly after taking office, Papandreou asked NATO to guarantee Greece's borders from every threat, from whatever direction it emanated -- the implication of a potential Turkish threat was clear" (Veremis 1997:175). However, once he assumed office these demands were quietly dropped. Papandreou's defense and foreign policies didn't change much from those of his predecessor. Due to friction with NATO and Turkey, however, Greece often refrained from participating in NATO's Aegean exercises. In 1984 Greece developed a new defense doctrine which identified its greatest threat not from the north but the east: Turkey. Tensions in the Aegean, fueled in particular by disputes over rights to oil and the limits of each country's continental shelf, continued to flare in the late 1980s.

Papandreou, like Karamanlis, appointed retired military officers to positions within the government. Following the return of civilian rule, the military has carefully stayed out of politics, and the benefits accorded to officers rose significantly in an effort to suppress some sources of dissatisfaction (Veremis 1997).

Under Papandreou, Greece signed a Defence and Economic Cooperation Agreement (DECA) with the U.S. in September 1983, negotiations for which were started by Karamanlis in 1973. This superseded the 1953 U.S.-Greece Defence Agreement. A Defence and Industrial Cooperation Agreement (DICA) was signed in November 1986.

Greek Fighter Aircraft. I

In January, 1973 Greece renounced American military grant aid; since 1950 the state had received "...about \$3 billion worth of U.S. arms through direct grants and credit sales from 1950 to 1972" (1974g). No orders for military equipment already placed were likely to be cancelled (and indeed they never were), though deliveries from the U.S. were halted until the situation was clarified. Greece withdrew from NATO in 1974, after the coup attempt in Cyprus described above. Greece remained a political member but left the military command, leaving a gap in Allied Forces Southern Europe. Greece, however, was dependent on U.S. economic aid and so was unlikely to eject either NATO or the U.S., with whom they had standing bilateral agreements, from bases on Greek territory, though they were under Greek national control (1974a; 1974c).

Doubts over U.S. economic aid to Greece in 1974 prompted reports that Greece would order the Mirage F-1 (along with French tanks and patrol boats), although it was also considering the American A-7 Corsair, an early 1960s-era naval plane. The United States had supplied arms to Greece since

World War II, so Greece's switch to the French plane was a surprise, as well as an indication of deteriorating relations with the U.S.. This switch also marked a greater willingness within Greece to seek alternate suppliers, which it would continue to do over throughout the 1970s, 1980s, and 1990s. The deterioration was sparked, in part, by U.S. rejection of Greek aid demands in current basing negotiations, for which discussions began in 1973. Greece wanted more aid than the amounts laid out in earlier contracts. The U.S. got bad publicity over the matter in the Greek press, prompting it to threaten a military aid cut-off, despite the importance of the bases to American military strategy in the Mediterranean. At the same time, however, the United States was likely somewhat relieved, as it was widely criticized for supporting an authoritarian regime in Greece.

Greece withdrew from the aid plan altogether, and the United States capped aid at \$71 million on credit sales. Some American officials wanted to end all aid to Greece, as it was not, under the military junta, a democratic state. Greece began looking to France for assistance, and France responded by offering generous terms for aircraft, such as repayment over 15 years (1974h). In addition to the extended repayment schedule, France offered Greece the use of some of its own Mirage IIIs until the F-1s were ready; Greece, worried about an escalation with Turkey in the Aegean, was looking to strengthen its forces right away (1974a). France, in helping to clinch the deal for 40 Mirages, indicated that Greece would receive assistance in developing its aerospace industry, at least in part through participation -- most likely offset work -- in

Mirage production (1974d). As part of Greece's modernization plan, it ultimately purchased both 40 Mirage F-1s and 60 American A-7 Corsairs.

France, meanwhile, promised to accelerate deliveries of the Mirage F-1s (1974b; 1974e). France showed support for Greece over Cyprus, and it was moving into the Greek arms market, competing with the U.S. over Western European fighter supply. France's position was that, as a Mediterranean power, it wanted to limit Soviet influence in the region. France was also offering to support closer ties between Greece and the Common Market: "The Common Market held in abeyance an association agreement with Greece after the military junta took power in 1967. Now France has asked her Common Market partners to restore Greece's privileges under that agreement" including market access and financial aid (Farnsworth 1974).

In 1975, Greece asked for a resumption of American military grant aid, which was renounced in 1973 by the military government; during this time Greece continued to receive American military equipment with military sales credits (Modiano 1975a). Late in the year a report came out indicating that four American defense firms -- Lockheed Aircraft International, Westinghouse, General Electric, and Austin Engineering -- would work with Greece to establish a state aircraft industry there (Modiano 1975b).

Greece and the U.S. drew closer to a defense cooperation agreement (\$700m over 4 years, including arms, for bases) in 1976, despite significant Congressional opposition. Democrat John Bademan, for example, stated, "I find it extraordinary that the United States should have to pay two allies of

ours [Turkey is the other] for bases that are as much in their interest as ours" (Emery 1976). Others argued that establishing bases in Greece would, by default, make the U.S. the policeman of the Aegean. The terms of this agreement, settled in 1977, remained unsigned for several years.

By 1980 Greece was insisting on NATO reentry as a precondition for signing the 1977 basing agreement. Greece had thus far rejected NATO's terms for reentry because Turkey wanted shared command rights in the Aegean, while Greece wanted pre-withdrawal terms to hold, meaning that it would control Aegean airspace and waters. However, Turkey, as a NATO member, could veto Greece's bid for reentry; Greece was thus asking Turkey's major military and aid supplier, the United States, to apply the appropriate pressure. Greece did re-enter NATO in October 1980.

Greek Fighter Aircraft, II

In 1976 Greece began evaluations for a new fighter aircraft, considering the F-16, the F/A-18, the Mirage 2000, and the Panavia Tornado (1982j). Cost estimates for the acquisition ranged from \$2.1 billion (F-16) to \$2.3 billion (Mirage-2000) to \$2.9 billion (Tornado, F-18) (all in current dollars) (1983d). Greece's Socialist government considered acquiring a mix of planes, most likely French and American; all parties offered attractive offsets. In May of 1981, the Socialist governments of Spain and France signed a Memorandum of Understanding on arms cooperation, and a similar France-Greece relationship was possible. However, poor after-sales service records on the F-1s already in

Greece were a strike against the Mirage-2000, a follow-on plane. Further, France placed limitations on Greek repairs of Mirages flown by other states, which hampered the talks, since Greece wanted the right to deal directly with others for repairs, rather than through France. As part of Greece's modernization effort, HAI (Hellenic Aerospace Industries) was trying to establish itself in the Middle East and North Africa; Greece hoped to produce spares locally for France's worldwide sales of Mirages (Ierodiconou 1982).

Panavia, which was trying to develop an export market for its Tornado, developed in the late 1960s, saw Greece as key to the export market and thus offered a deal, estimated to be worth more than the aircraft, for coproduction, industry cooperation, and joint ventures "ranging from energy projects, such as solar and wind, to fish farming" (Cooper 1982). "Panavia studies indicate that by the year 2000 the aerospace- and defense-related portions of the proposed offset plan would return to Greece more than 50% of the cost of the Tornado procurement and the non-aerospace portions would more than double this total, effectively providing the Greeks with about 120% offset on the purchase of the Tornado." In addition, Greece's HAI would be made a partner in Panavia, with final assembly of the aircraft done locally (1982b; 1982d). Meanwhile, American Department of Defense personnel worried that an offer of too many offsets to Greece would hamper HAI's ability to repair American engines and C-130s in the region, which it was licensed to do (Brown 1982). A decision was still pending, with U.S. basing rights and aid negotiations the primary holdup.

In 1983 the competition between aerospace companies to offer the most attractive offsets package heated up. Some observers argued that the F-16 and Tornado were most favored, with the Mirage 2000 too expensive and not technologically advanced enough. Further the military was not pleased with the repair rate of the F-1 (predecessor to the 2000), and though it would agree to any mix deemed politically attractive, it preferred the F-16/Tornado combination (1983d). Reports from France, however, claimed victory for the Mirage-2000, for which France had now offered engine repair rights, including for those flown by Iraq, Jordan and other states in the region; the French also offered industrial work and tourism promotion as offsets (1983d; 1983e; 1983f; 1983g).

Early 1984 brought reports that the F-18 was the likely choice, though the Mirage and the Tornado were still strong contenders (1984a). Four "final" bids were submitted in February, though these would turn out to be negotiable for at least another year. The Panavia bid included the offsets as mentioned above, with some of those in aerospace, and now the integration of Greece into the aircraft's network for training and logistics (1984e).

The new year also brought a series of sharp exchanges between the United States and Greece over aid, planes, and U.S. access to Greek territory (bases). Greece expressed annoyance with the U.S., arguing that it exceeded the 7/10 aid ratio to Turkey that the previous basing deal had locked in (Greece was contractually due 70% of the amount of aid which the U.S. gave Turkey). Further, Greece suggested that in tilting toward Turkey, the U.S. was

trying to upset the Aegean balance of power and to weaken the Greek government; thus, Greece threatened to re-evaluate its ties with the U.S.. American President Ronald Reagan, in turn, indicated that he might not allow deliveries of second-hand jets to Greece, notably, F-5A Freedom Fighters from Norway. Such transfers require U.S. approval because they were initially FMS (Foreign Military Sales) transactions; the U.S. went so far as to suggest that Turkey might receive the planes instead. American dissatisfaction stemmed in part from an incident two months earlier, when PM Papandreou called Washington the "mecca of imperialism" and began making overtures to the Soviet Union (Anast 1984; Ierodiconou 1984b). When the U.S. (temporarily, it would turn out) blocked the transfer of Norway's F-5s, Greece threatened to stop Voice of America broadcasts from Greek stations; said one unnamed Greek official, "If they're not giving us planes, we won't give them relay stations" (Ierodiconou 1984a). A few days later, the U.S. hinted that the planes were not totally blocked, with some going to Greece and some to Turkey.

By August, it seemed the Tornado was out of the running, with a 60 U.S./ 40 European mix anticipated and a decision to be announced in October. The competition was begun in 1976, meaning Greece had been evaluating and negotiating for aircraft for eight years. The deal, valued at up to \$2.2 billion, would consist of two aircraft types. This mix, according to Prime Minister Papandreou, would help to consolidate Greek independence. The Tornado would be more expensive, despite being the only one offered with full co-

production rights, with Greece as a consortium partner; further, it represented an entirely new set of systems requiring extensive retraining for pilots accustomed to flying French and American planes (1984c; 1984h). Fly-away cost was now estimated to be \$25 million per plane (in current dollars). Finally, at this point the Tornado seemed to be losing proposition: its anticipated export market was failing to materialize. An F-18A-only buy was preferred by the Greek Air Force (HAF), but for political reasons the split, including a Mirage purchase, was likely. France had long been a diplomatic ally of Greece within Europe, and Greek leaders were careful to continue cultivating a cordial relationship. That month Greece announced the purchase of 40 Mirage-2000s; the potential for an embargo of that plane was seen as lower in the event of a military flare-up with Turkey (1984d).³⁵ The Mirage purchase was financed with loans made by several banks to the Greek government. In addition, France pledged to buy Greek military goods worth \$350 million by 1989 (1984d; 1984f; 1984h).

Greece was keenly aware of Turkey's recent deal to acquire -- and produce under license -- up to 160 American F-16s, and felt some compulsion to consider that aircraft further. The choice of American plane would, however, ultimately be decided by the offsets package which could be agreed upon. A perception that Greece was using the fighter procurement program to enhance statehood, both tangibly through favorable contract terms and less tangibly through the political approval a contract implied, was growing.

³⁵ An offer earlier in the year of Mirage F-1s at low prices ("practically free") plus world rights

According to one author, concessions (offsets, co-production) were not the only concern; rather, Greece was "winning political support for Greece's perception of Turkey as a threat to it in the Aegean" (Howarth 1984).

Taking a "realistic approach" to what it might achieve with a fighter aircraft program, Greece focused on direct co-production, indirect defense and aerospace programs, and commodity transactions (Howarth 1984). By November, Greece made a tentative commitment to 40 F-16s, in addition to the 40 Mirage 2000s on order, and it took an option on 20 more of either plane, good until 1987. About a third of the cost was to be offset by industry and another third by payments for U.S. bases; "Greece also negotiated a ten-year grace period for the payment of the remainder, to be spread over nine years starting in 1994" (1984f). Initially, Greece planned to pay for the F-16s through the conventional FMS channels, but this was to be renegotiated in the coming year. A lower unit cost (about \$5m less than the F-18) and better offsets (including component manufacture but not assembly as technology transfer) worked in favor of the F-16.

1985 brought reports of several interesting developments in the deal: terms for the F-16, previously announced as final, were still being negotiated, and Greece was holding off on a U.S. demand that they sign a pledge indicating that no military technology would pass into Soviet hands. Greece argued that the only threat it faced was within NATO, not from a communist state, and it therefore had no reason to sign such an agreement (although

for the manufacture of spares and repairs was turned down by Greece (1984b).

Greece and Turkey were the only two NATO members not signing such an agreement, known as a General Security Military Information Agreement [GSMIA]). An October report in which a Soviet diplomat claimed that Western technology had been sold to the Russian Embassy by Greeks did little to help the F-16 situation in the United States.

Most notably, however, Greece would pay not through FMS channels (though some FMS credits could be used) but would negotiate directly with General Dynamics, which would make agreeing on and implementing offsets easier and possibly allow Greece to sidestep firm basing commitments; further, they estimated they would save \$54 million in administrative fees, out of a \$1.2 billion package. Such a commercial arrangement – firm-to-state sales, rather than state-to-state -- would be a first for the F-16 (1985a; 1985b; 1985e; 1985f; 1986b; 1986c; 1986e; 1986f; Feazel 1985). Greece was threatening, again, to close American and NATO bases if the F-16 deal did not go through.

In July, Papandreou was reelected, based in part on promises to close U.S. bases in Greece by 1988. Greece was barred from receiving an export license for the F-16s, perhaps for the third time, due to U.S. annoyance with the current government, threats to the basing deal, and the refusal to sign the GSMIA. Further, some American analysts suggested the electronics³⁶ were too sensitive to transfer to Greece, particularly given the politically-charged atmosphere, while some suppliers and sub-contractors preferred that the deal be done through regular FMS channels(1985c). The U.S. government also

³⁶ Westinghouse-ITT Airborne Self-Protecting Jammers

preferred government-to-government arrangements (1986g). Greece continued to hold out for more technology transfer and threatened to cancel the entire deal if the export license were not approved soon (1985d).

France planned to offset 60% of the Mirage-2000 contract over 15 years, with 30% of this going to Greek defense industry, 10% going to tourism promotion, plus unspecified investments in Greece's high-tech industry and the promotion of Greek products in France. AMDassault-Bregeut would be in charge, with participation from SNECMA (engine manufacturer), Thomson-CSF (electronics manufacturer), and Matra (weapons manufacturer) (1985c; Ierodionou 1985; Lenorovitz 1988). The deal was valued at \$1.07 billion (in 1983 values), yielding a unit cost of \$26.7 million per plane. HAI acquired rights to co-produce at least 33% of all Mirage-2000 exports until the year 2000 (1986a)(1986a).³⁷

As part of the F-16 deal, the U.S. insisted that its bases in Greece remain open beyond 1990. The GSMIA was in large part initialed as acceptable by January, 1986 (1986c). In a commercial joint venture between General Electric and HAI, Greece chose the GE F110-GE-100 engine for the F-16s (1986e). As the final deal closure drew near, the unit price looked to be \$27.3 million, or \$1.1 billion for 40 aircraft. If Greece were to take up its option on a further 20,

³⁷ By the end of 1987, however, Greece expressed worries about France's offset participation; thus far \$31.6 million of \$237 million had been committed, with the first of three 5-year periods for French participation set to end in June, 1988. If the first target were not met, France would face \$13 million in penalties. Nor had France purchased any of the \$254 million worth of Greek defense items to which they had committed. Not to worry, said Dassault, SNECMA, and Thomson-CSF, with AMD president Serge Dassault arguing that 50% of offsets had been finalized, if not transacted (1987c; 1987d). *Jane's Defence Weekly* claimed that only 10% of the amount that should have been invested in fact was (1988).

which General Dynamics executives were promoting locally in December, the total price would move to \$1.5 billion, or \$24.4 million per copy (1986d).

The F-16 deal was signed in January, with Greece to receive almost \$1 billion in offsets; partners General Dynamics, General Electric, and Westinghouse were all to "establish a business development company in Athens responsible for complementing investment, trade and technology transfer programmes. The U.S. companies (were) to provide \$50 million in capital over the next 10 years beginning with \$9.2 million this year. Five percent of shares in the new company will belong to the Greek government" (1987b). Greece received substantial payments from the U.S. for continued use of its bases there, about a third of the contract total. Meanwhile, Greece continued to charge that U.S. aid to Turkey was in excess of the 7-10 ratio. Some speculated that Greece did the deal for American planes to curry favor with the Reagan administration (Tzallas 1987). Total contract price ended up at \$940 million; the sale was a commercial transaction financed exclusively with FMS credits. These credits (FY87 = \$343m) would be jeopardized by any Greek closure of U.S. bases (1987b). Thus Papandreou, while "officially committed" to closure, was hinting that the bases could remain open if the price were right, including either an American "guarantee of Greece's territorial integrity to deter rival Turkey" or "a well-defined codification of U.S. military aid to Greece in a new DECA [Defense and Economic Cooperation Agreement]" (1987a; 1987b; Dierckx 1987).

Concluding Remarks: Greece

In eight years of negotiations Greece ensured a number of key points as regards its security and identity concerns more generally. First of all, its fighter purchase was animated by the ongoing uneasiness between Greece and Turkey. However, the choices Greece made represent attempts to, as noted above, consolidate Greek statehood. First of all, the split purchase, uncommon in major arms deals, was a political attempt to please two important allies, France and the United States (despite continuing anti-Americanism in Greece). France had long championed Greek causes (regarding EEC/EU entry, NATO, and Cyprus), and had supplied fighter aircraft earlier when Greece and the U.S. had a falling out over the basing deals. At the same time, it was, in the end, important for Greece not to risk alienating the U.S. too much, because of its reliance on American economic and military aid, and because American support was vital to Greece's return to NATO (Turkey had veto power within NATO, but Turkey was more dependent on the U.S. for aid than was Greece). However, Greece was able to bargain for favorable terms for its fighter aircraft by threatening to close the American and NATO military bases on its territory.

CONCLUSION: PAKISTAN, SPAIN, AND GREECE COMPARED

As the preceding case study discussions indicate, states do adopt a definition of national security that includes not only a military security component (fighter planes), but a political component (such as NATO and EEC integration, or non-alignment) as well as an economic one (again, EEC

integration, or efforts to develop indigenous industry). Pakistan ultimately failed to so define itself, even in rhetorical terms, and in fact probably could not have, given its regional particulars.³⁸ Rather, Pakistan adopted a "hard" definition of the sovereign state which was based exclusively not just on military but *nuclear* military capability.

Both Spain and Greece, semi-peripheral states on Europe's perimeter, were involved in much more than either arming for clearly-articulated security threats or merely acquiring symbols of power. Rather, leaders in both states successfully attached controversial non-military goals to the acquisition programs, thereby recoding them as national security matters. At the same time, negotiators in both states were able to translate national development and political linkage goals into specific concessions made by the weapons suppliers. Of particular important to Spain were not merely offsets but technology transfer and assistance in establishing local industry (military and civilian). The degree to which the control of technology and the ability to innovate remains hierarchical within the world system is taken up in the next chapter, which analyzes India's ambitious efforts to create an indigenous aerospace industry.

These cases suggest attempts to use ambitious arms acquisitions programs to enhance national security and sovereignty through other than military means. In other words, states attempt to use weapons acquisitions programs to meet goals nominally acknowledged as security issues but falling

³⁸ Although, at least until recently, India has had some success with such a strategy.

far outside the traditional sense of security as territorial integrity, and they do so by exerting the power available to them. In recipient states, the acquisitions process is often cast in terms of state-building and sovereignty-consolidation. More specifically, the cases suggest that arms were not merely tools of superpower strategizing and leveraging; non-core, recipient states are not merely pawns in a game of super-power manipulation. Rather, states negotiate shrewdly over an extended period and aren't particularly loyal to one supplier as they seek to enhance political ties and secure economic benefits, as well as acquire combat aircraft.

However, the impact of reverse influence on the economic fortunes of those states who use it appears small. Although states have many opportunities to exercise specific power, structural and ultimately hegemonic power override them. Thus inequality in effect limits power. Perhaps more importantly, those instances in which states successfully deploy power are in fact scripted by hegemonic understandings of institutions and norms, such as sovereignty and security. Similarly, because its effect on structural inequality appears to be nil, little long-term change in structural power is evident. While reverse influence is concrete in its specific consequences, it is fleeting in the face of structural inequality.

producing a number of major weapons systems under license.

CHAPTER SIX

EXTRA-MILITARY COMPONENTS OF SECURITY IN A MILITARILY INSECURE ENVIRONMENT: TECHNOLOGY, DEVELOPMENT AND SECURITY IN INDIA

The current debate over the meaning of “national security” is part of a larger epistemological reevaluation of the merits of realism and neo-realism in a post-Cold War world. This debate has been driven by Western theorists. Their calls, while varying in substantive focus, echo a similar theme: problem X, issue Y, or crisis Z, constitutes a security threat and therefore should be included in the “national security” rubric. Thus, Deger and Sen (1990) argue that the international debt crisis is a security issue; Buzan, Waever and de Wilde (1998) call for expanding national security to include economic, environmental, and “societal” components in the traditionally political/military conception of security; McSweeney notes that human rights, identity, and nationalism all have become security issues (McSweeney 1999); and in his discussion of national security crises Stoett (1999) includes not only genocide and environmental destruction, but international migration. National security has even become, in the work of some theorists, a global cultural norm (see the edited volume by Katzenstein 1996). While locating a number of theoretical and empirical jumping-off points for expanding the security debates, none of these approaches takes into account what it is that

states, and especially non-core states, really aim to achieve when they “do” -- that is when they talk about and prepare for -- national security. The dominant paradigms and the recent calls to reevaluate them are holistic, top-down approaches to security, arguing for a model of security based, in the end, either on super-power understandings or on a global cultural model that applies to all states.

Realists and cultural institutionalists alike fail to include a range of domestic concerns which inform any given national security agenda as well as the systemic constraints placed on states when they pursue national security agendas, or arming for defense. Clearly defense concerns are traceable, in part, to a state’s war experience and regional threat environment. However, its weapons acquisitions patterns are not always congruent with that threat history and prospect; rather, the weapons states seek can be ill-suited to the threat environment: excessive, redundant, or even inappropriate weapons are common throughout the semiperiphery and periphery. Indeed, while some categories of weapons may indeed be, as Eyre argues, symbolic, their uptake varies by world system position. Thus, peripheral states acquire what they can, often cast-off equipment, leveraging their location in the former Cold War. Core states seek, as a rule, the most sophisticated weapons they can afford to develop and/or import. Semi-peripheral states often seek weapons as part of a larger developmental strategy that includes political linkages, local infrastructural development, and the transfer of advanced technology and

capabilities. At the same time, sociologists have failed to consider how national security decisions can have significant effects on a state's economy.

Security decisions that are seemingly military in nature – major weapons systems acquisitions – are more complicated. In fact, they are a product of at least two additional important variables: a state's insertion into the world system, that is the global economy and the international states system, and a state's domestic political economy. This conception of national security is broader than the traditional, realist conception of security as territorial defense, and better specified than the new institutionalist conception of security as an enactment of global norms. Rather, a world systems approach to security incorporates global dynamics of power, both political and economic, and the articulation of state's development goals. Decisions that are nominally "security-oriented" are often a part of broader development strategies with national origins yet which conform to world systemic prospects. Security "on the ground" is neither merely cultural nor strictly military; rather it is a concrete set of concerns – development and alliances – shaped by the world system and domestic political-economy.

In the previous chapter, we saw how Greece and Spain incorporated additional, non-military goals into their security definitions and weapons acquisition strategies. These goals were of two types: first, economic development objectives were made explicit parts of fighter plane acquisition packages, and second, political linkages, namely with the European Economic Community and NATO, were also important components of recipient states'

decisions. A less tangible aspect of the linkage goals evident in both states, but especially in Greece, was a desire for a strengthened sense of Europeanness, or an identity concern.

Greece and Spain both used reverse leverage to bargain for deals that met their broad national security agendas. Both states, however, were in a relatively privileged position *vis-à-vis* their suppliers and when compared to many other non-core states seeking weapons. They are on Europe's southern tier and have long-standing histories of close interaction with Western Europe. Many other states that seek advanced weapons from the core, however, have less to bargain with: they face foreign currency shortages, have flagging defense expenditures budgets, or are deemed unimportant – or even threatening – to supplier interests. The further removed a state is from a) the geographic core, b) the theoretical core, or c) a geo-political hot-spot, the more likely it is to experience decreased possibility for bargaining successfully with its core weapons suppliers. This point was illustrated by the case of Pakistan. The Pakistani case clearly points out the limits to an acquisition strategy based on reverse influence, and thus, the inherent power inequities in the world system, even as regards what is considered by realist theorists a right of the sovereign state and by institutional theorists an unproblematic ability to enact security rituals: arming.

In this chapter, I shift my attention to another semi-peripheral state, India. The Indian case highlights the ways that technology transfer issues remain hierarchical within the world system and serve to limit states'

development goals. At the same time, it illustrates the impact that arms acquisition decisions can have on a domestic economy. India, which maintained a vision of autonomy that included indigenous technological development, consistently failed to articulate its goals between civilian and military leaders, underfunded local R&D, and concentrated on the domestic market, as opposed to export possibilities. As a result, the state's technological base has failed to keep pace with developments not only in the core but also in other, semi-peripheral states, such as South Korea. While it has actively sought foreign technology inputs, it has not done so systematically, and India has as a result ended up with a diverse, some would say inchoate, arsenal. A number of factors influencing India's arming pattern, including foreign currency crises, credibility gaps, and shifting domestic and international allegiances, can be linked to semiperipherality.

In this chapter, I present a discussion of the impact of technology on development and the hierarchical nature of technological advantage. I then turn to a historical sketch of India's development and security strategies, first as they were articulated by its first Prime Minister, Jawaharlal Nehru, and then as they were impacted by changes in the domestic and international political-economies. I then present analyses of India's recent fighter planes acquisitions. Finally, additional comparisons will be made with Japan, a core state, to further clarify the ways that supplier-recipient relations vary systemically.

Development, Technology, and Weapons

A number of factors have been cited as important to a state's successful development effort, including a well-linked yet somewhat insulated bureaucracy (Evans 1995), human capital, democratic institutions, state involvement, lack of state involvement, foreign capital inflows, lack of foreign investment, and the ability to develop and utilize advanced technology (Malecki 1997).³⁹ Indeed, Malecki considers this last factor to be the most crucial of all, and sociologists have recently paid closer attention to it in their analyses of growth possibilities (Evans 1995; Robinson 1988; Samuels 1994; Smith 1997). According to O'Hearn (1994), the key to economic growth lies in the ability of states to innovate technologically, as opposed merely to adapting technology innovated elsewhere. Evans (1995), drawing on Schumpeter's work on innovation, makes a similar point in his study of the computer industry.

Increasingly, scholars are exploring the ways in which the technological capacity of states varies *systemically*, with core states controlling technological and marketing knowledge, and semi-peripheral and peripheral states being involved in production, even of relatively sophisticated products such as automobiles, at points on a commodity chain which offer fewer opportunities for profit. Core states and firms, as a rule, have greater abilities for sustained and directed R&D investment, educational spending and linkages,

infrastructural development, and institutional capacity, giving them a leg up in the development of technological capabilities. As Smith (1997:739) notes, “the most effective advanced centers of technological development are the result of a massive mobilization of human and material capital possible only through extensive cooperation between states and multinational firms, predominantly those based in advanced core states.” At the same time, a “new international division of labor” based on systemic variation in wage and skill levels, i.e., skill-intensive (and high-wage) activities in the core and labor-intensive (and low-wage) activities elsewhere, maintains uneven development processes (Frobel, Heinrichs and Kreye 1980).

Among world-systems analysts, technology is not only increasingly regarded as central to change and development, but also a mechanism that can perpetuate macrostructural inequality. In fact, as Smith points out, control of scientific knowledge and processes are a part of the global system and thus are indicative of “the hierarchic and exploitative dynamic endemic to it” (Smith 1997:736). The result is technological dependence: control of technology tends to lie in the core, and non-core states generally rely upon foreign inputs for their own technological needs. Smith (739) defines technological dependence as “... the degree to which the technical know-how and organizational innovations critical to commodity production and marketing are controlled by ‘external’ or foreign entities (firms and states).” This dependence is costly in at least three ways. In the short term, high technology items, even if

³⁹ Following Smith, I refer to technology as not only “technical procedures and know-how”

manufactured at least in part outside the core, must ultimately be imported from the core. Second, firms outside the core must pay expensive licensing and royalty fees to gain access to technological know-how. And in the longer term, with little innovative capacity transferred, the inherent inequalities of the global system remain intact.

As noted in Chapter Two, very few states approach self-sufficiency in the production of major weapons systems, and those that do, including the United States, the former Soviet Union, France, the UK, Germany, and Sweden, are all located in the core. Semi-peripheral states, while dependent on core states for the bulk of major weapons systems (and this is true for states ranging from Poland to Brazil to India to Israel to South Korea) as a rule seek to indigenize as much military technology as possible. Their goals are tripartite: all can be said to aspire to greater self-sufficiency in terms of their own defense; all have expressed the view that the development of a defense industrial base is a key component of economic development more broadly construed; and all view some segment of the export market for weapons as a means of achieving hard currency, thereby offsetting some of their own military costs. Peripheral states received equipment from core and semi-peripheral states largely as a function of their colonial linkages and/or their alignment with one of the two super-power supplier states involved in struggles for influence of the post-colonial, post-World War II era.

but also organizational, institutional, and managerial mechanisms (Smith 1997:735).

While states often link the acquisition of technology to overall development goals, Malecki notes that its benefits are chimerical. “High-technology industry is misunderstood and overrated as a solution for local economies. Even over the long term, its probable direct employment generation is low... For developing economies, technology transfer affirms their technological dependence on other nations and firms from which they obtain technology. Control over the pace and form of technology remains where R&D and improvements in production process technology are ongoing” (Malecki 1997:23, 306). Military technology, perhaps more than any other, has been imported with an eye to using it to “jump-start” local development (Mullins 1987). States have diverse agendas when turning to military technology, and analysts attribute a range of effects to its uptake: in some cases it is viewed as a general modernizing influence (Weede 1983); at other times, states seek specific technologies with military applications (India followed this approach in its fighter planes acquisitions); other states, meanwhile, have viewed military technology as one component of technological innovation that is intimately linked to more general technological capability (Spain’s strategy of linking military acquisitions to investment and offsets in other areas is one example of this strategy, and as we will see later in this chapter, Japan has had a finely tuned sense of the potential links between civilian and military technology).

The dynamics the global technology gap, as well as the pitfalls of technological dependence, are particularly powerful where military

technology is concerned. States that are trying to encourage indigenous industry with the input of transferred technology must, essentially, chart a course between alliance with their allies/suppliers and autonomy in foreign policy and security agendas.

In his study of Japan's defense industry, Green (1995:3) describes this tension between alliance and autonomy states face in the development of an indigenous defense industry. The development of an autonomous industry in Japan is supported by conservative politicians and industrialists alike as part of a broader strategy to enhance Japanese security. Yet the necessity of another development strategy pursued in Japan, and nearly all other small states, namely alliance with a larger power (in this case, the United States), is not without its difficulties. When aligning, a state must chart a course between entrapment, or being caught up in issues of the larger power which do not, in fact, bear directly on the lesser power, and abandonment, or the possibility that the more powerful state will drop the smaller ally from the alliance. Green summarizes: "The dilemma is that moving closer to the ally to avoid abandonment increases the chances of entrapment, while increasing independent policies and capabilities to avoid entrapment increases the risks of abandonment" (Green 1995:3).

As the following section makes clear, India has, since independence, embarked on an ambitious development strategy, one which incorporates non-alignment, self-sufficiency, military preparedness, and indigenous technological capacity. In India, efforts to propel the state into a position of

regional power have been based, at least in part, on ambitious arms acquisition and production programs, as well as a concerted effort to remain a non-aligned state.

For India, the technology dilemma was particularly difficult because of the combination of strong drives for superior technological capability on the one hand and economic self-sufficiency and political non-alignment on the other. Evans (1995: 106) states: "The goals of the committee [Bhabha Committee, charged with devising goals for development of the IT industry in India], like India's vision of its industrial future more generally, were autarkic. Satisfying domestic demands with minimal reliance on foreign inputs was the aim. Questions of comparative advantage or what role India might play in international markets were beside the point." India sought more alliances for defense production than for other sectors, like autos (see Evans 1995). Making the comparison between Brazil and India, Evans notes that Brazil's defense industry gained significant currency through its military exports, while India did not. Brazil's strategy differed significantly: its military regime sought to shore up defense technology inflows and to offset the cost by developing products that could be exported. India, on the other hand, has sought self-sufficiency, at least as a matter of policy, in a broad range of sectors, including defense technology. In practice, however, the preference of the military, especially the Air Force, for proven, top-of-line equipment manufactured in the core usually won out. As a result, India's forays into indigenous

production have been expensive and cumbersome, with limited long-term contribution to the goal of autonomy.

India And The Complex Dynamics Of National Security

If the acquisition of similar systems from multiple suppliers is not easily understood by theories of national security, India is perhaps among the most anomalous of weapons acquirers. It inherited, upon independence in 1947, a large, well-organized army (modeled along the lines of the British forces) and significant, if not the most modern, equipment from the UK. Since gaining independence in 1947, India has devoted considerable effort and expense to its security, and most analysts would agree that this has been at the expense of other infrastructural development and basic needs provisioning (see Brass 1994). In the late 1970s, India embarked on an arms spending spree (Gupta 1986; Smith 1994) that lasted until the mid-1990s, consistently importing enough equipment to rank it as one of the world's leading arms importers. In this period, India acquired, among others, four different light fighter aircraft types from three suppliers (this does not include bombers, trainers, naval, transport or other military aircraft, which it also has acquired in significant numbers). Its planes, the British-French Jaguar International, the French Mirage 2000, and the Soviet MiG-23/27 and its follow-on, the MiG-29, followed one another into India in rapid succession, and two types (the Jaguar International and the MiG-27) were slated for licensed production in India.

In India's case, I hypothesize that this "collection" of weapons is emblematic of a self-conscious effort to meet at least three goals. First, India was keenly aware of its defense in the common understanding of the term (though some would argue unrealistic in its threat assessment). Second, India vigorously pursued the legitimate incorporation of sophisticated technology which might springboard it into a position of self-sufficiency and regional (if not beyond) dominance, as construed by Nehru.

These efforts at bridging the technology gap and indigenization were thwarted in two significant ways. At the international level, core states, while eager to participate in Indian defense acquisitions, were reluctant to allow full release of technological know-how; domestically, the Indian government did not back up its developmental and indigenization rhetoric with the necessary monetary and infrastructural support, and clear leadership on technology issues was lacking. Finally, India embarked upon a genuine but ultimately failed effort to reach its goals while remaining not only non-aligned but independent.

Security Threats

India's political and military leaders have long outlined security threats in three key areas: from Pakistan, China, and the Indian Ocean. The severity of these threats, however, is open to some question by analysts outside India (Smith 1994). India's equipment outnumbers Pakistan's 3 to 1, and it has a substantially larger standing army. Any Pakistani attack would require a long

advance across inhospitable terrain, and India has proven it could repel such an attack. China has little motivation for attacking India, and it has demonstrable military superiority. It is unclear what threat India perceives from the Indian Ocean, but it has, at times, indicated an uneasiness about American motivations in the region and has also expressed a desire to be the leading naval power in the Indian Ocean. Neither of these concerns, however, is a clearly articulated security threat.

Nehru: Self-sufficiency, non-alignment, and security

India emerged from colonial rule stronger than most other “new” states: its economic base was relatively industrialized, and it had a strong political party, the Congress Party led by Jawaharwal Nehru, and a history of democracy. India’s leaders saw the state as not merely a leader in Asia but as a world leader based on a new model of security and self-sufficiency. Post-colonial India, guided by Nehru, envisioned itself as a regional leader as well as the leading state of the non-aligned movement (NAM).

Nehru viewed a strong central state with powerful industrial and military components as key to a strong and modern India (Brass 1994), and the military, urban business classes and the state bureaucracy in India have all been committed to a strong central government (Bardhan 1984). These centralizing drives have fostered unrest and, ironically, have ultimately weakened the state’s institutions and capabilities.

India's public sector, rather than the private sector, took the lead in its industrialization efforts; the state was dependent in these efforts on foreign exchange and capital, as well as development aid, though it was assumed that, as industrialization took hold, the state would shift towards increasing independence. Given India's large land and population resources, coupled with a shortage of financial resources and lack of commitment to indigenous technology, this strategy was ineffective; as Brass (Brass 1994:275) notes, "[India] drew upon a model of what a modern industrial society and a big military power looked like in the twentieth century and upon the methods used in the past by the big industrial military powers to achieve their current status, and drew up the requirements for India to achieve a similar status irrespective of its own resources, social structure, and the needs of its people." Since independence, India has pursued a strategy of reduced dependence on foreign firms and states, and has been more successful in this regard than many other post-colonial states (Encarnation 1989); at the same time, it did manage to avoid the debt burdens that many other semi-peripheral and peripheral, post-colonial states faced.

India's rate of economic growth in the late twentieth century (between 1 and 2 percent a year) has been outstripped by its population growth (between 3 and 4 percent annually). At least until the mid-1970s, however, it placed economic re-distribution before growth in its development aims (Kumar 1989). Its relative lack of success in this effort (Brass 1994), however, led, in the mid-1970s, to a credibility crisis, resulting ultimately in Indira Gandhi's

implementation of suspension of democratic government institutions; this period, known as the Emergency Raj, lasted from 1975 to 1977. In the 70s and early 80s in India, political legitimacy was eroded due to the breakdown of the “moderating influence of the institutionalized procedures of the old party machine” (Bardhan 1984:81.)

Nonalignment as Nehru viewed it was more than neutrality: rather, it was a concerted effort not to allow the superpowers and the Cold War define international relations for all states (Muppidi 1999). Thus, as least initially, both the United States and the USSR viewed nonaligned India with suspicion, for each saw in its position a leaning towards the other side. According to Nehru, “Security can be obtained in many ways. The normal idea is that security is protected by armies. That is only partly true; it is equally true that security is protected by policies. A deliberate policy of friendship with other countries goes farther in gaining security than almost anything else” (quoted in Muppidi 1999:128). In addition to friendship, Nehru spelled out a nonaligned position that included anticolonialist, antiracist, and developmental goals for much of the world’s population.

In regard to defense, his initial vision of a nonaligned and secure India included a decided technological capability. For Nehru, it made more sense to produce an item of a lower standard than to import one of the highest quality from elsewhere. Nehru asked the British physicist P.M.S. Blackett to prepare a report on and strategy for Indian defenses; Blackett proposed moderation and independence, buying smaller, more practical and, when possible, surplus

weapons rather than high-profile systems. His report and suggestions, though initially praised, were largely ignored (Smith 1994). In India, civilian officials undertake defense decisions, and there is not any joint planning between the branches of the services (army, navy, and air force). Indeed, in India there is no Commander in Chief; rather, a civilian Minister of Defense oversees the three force chiefs.

India first looked systematically for foreign technology inputs as part of a development strategy following its first foreign exchange crisis in 1957 (Encarnation 1989). Indian planners prefer and rely on expensive technology licensing as opposed to foreign direct investment (Encarnation 1989; Malecki 1997). While this strategy may leave it less dependent on foreign entities, it has proved costly, with few spin-off benefits. In addition, its large and rigid bureaucracy, a preponderance of state-owned enterprises (SOEs), and little attention to potential export markets has left it slow to innovate in many fields (Evans 1995).

India, arms, and international alliances

Accounts of India's arms purchases tend to depict the country as a Soviet-bloc recipient. However, this view fails to take into account a longer buying history of the country. In fact, it was not until 1962 that India began to receive arms from the Soviet Union (Graham 1964), and while it is true that the Soviet

Union became India's primary supplier⁴⁰, India continued to receive arms from diverse sources, including France, the UK, the U.S., and other European (NATO and Warsaw Pact) states. Until 1962, India was supplied by both the United States, which continued to send considerable amounts of development aid, and the United Kingdom, with fighter aircraft and with other military equipment. However, in 1962, just prior to China's invasion of India, the latter country completed negotiations with the USSR for licensed production of both engines (MiG-21 engines, to be fitted in the indigenously-produced HF-24) and fighter aircraft, the MiG-21, marking both India's move away from Western suppliers and its acceptance of military aid. The motivating factors included Pakistan's receipt of American F-104 Starfighters, an attempt to deepen the division between China and the USSR, an effort to develop an indigenous industry, and a need to negotiate payment terms in rupees, rather than the dollars or sterling required by the U.S. and the UK, respectively. India continued to receive Western equipment, and began as well to accept military *aid* from the West, but this acquisition, and especially the terms (licensed production, ruble-rupee payment) marked a turning point not only for India's arms purchases but for arms transfers world-wide. India certainly was important to the broad Soviet international agenda after the early 1970s, backing it, for example, in the UN. Until the 1971 war with Pakistan, however,

⁴⁰ India in essence allowed many multinationals access to the Soviet markets by acting as a trade and currency conduit, while the USSR for its part exported to India sophisticated military equipment, crude oil, industrial commodities, and petroleum products. However, India's trade relations with its largest trading partner, the Soviet Union, were never especially

India had equally good relations with both the USSR and the USA, receiving economic and military aid from both. Until 1961 India accepted aid from both the United States and the USSR, and these funds gave it some autonomy and capacity for developing heavy industry.

India was one of the first non-aligned states to pursue favorable terms aggressively, and after its successes many other states increasingly sought such terms as part of arms transfer deals. Now the majority of transfers are marked by offsets, production arrangements, and technology transfer in various combinations. Not only are these deals an effort to increase security through territorial defense, they are also efforts to acquire advanced technology legitimately and then to incorporate it into domestic industry to the greatest degree possible. They also serve, in effect, to bind the buyer and seller, albeit loosely, particularly if the buyer is able to obtain a production or buy-back clause, and thereby indicate a move towards increasing integration. I will return to a discussion of the degree to which industrial development efforts are successful in recipient states, and how these programs might compare to similar investment in other sectors of the economy, in the concluding chapter of this dissertation.

rosy: India regularly accused the USSR of selling Indian goods obtained via barter to third

Fighter planes in India: Seven-year itch, eight-year scratch

Fighter planes I

In 1971, India announced plans to acquire and produce under license another, next-generation, aircraft (1972b) (the other was the MiG-21, mentioned earlier). This search for a fighter lasted seven years, and for another eight years after signing the original contract for the British Jaguars, India renegotiated the original deal as well as signed on to new deals with both France and the Soviet Union. In 1971, India already had a relatively robust aerospace industry based on foreign technology, producing under license the French (Aerospatiale) Alouette-3 helicopter, the Soviet MiG-21, and Soviet and British engines (the Tumansky R-11 turbo jet and the Rolls-Royce Orpheus 703, respectively) for aircraft produced locally. Defense Minister Jagjivan Ram reported to Parliament in August of that year that India was considering the French Mirage F-1 fighter aircraft for licensed production (1972a); the "top-secret" MiG-23 was also widely considered a candidate, as were the British-French SEPECAT Jaguar International and the Swedish Viggen.

Meanwhile, early in 1973 India announced plans to build an indigenous "top technology" fighter aircraft by the 1980s; while the design and production were to be Indian, India was nonetheless open to offers of both French and Soviet assistance (1973). This project would become the ill-fated LCA (Light Combat Aircraft), a project still struggling towards completion in 2000. Sustained efforts to acquire fighter planes and the related technological

parties, thus profiting at India's expense.

know-how from a range of states, as described below, were driven in part by a growing recognition that foreign technological input would be crucial to the completion of the LCA and in part by local demands to diversify suppliers and thus, hopefully, to avoid the double trap of technological dependence on and sustained alliance with one state.

In December 1973 India, led by Indira Gandhi and the Congress Party, and the Soviet Union signed on to the terms of a 1971 15-year economic cooperation deal. This deal marked a turning-point in Indian-Soviet relations, for several reasons. First, the scope of activity covered was greater than any deal signed by India in the past, and the ruble-rupee trade was an important aspect, as well. Industrial activity and trade were to be stimulated, and the military aspects, while not immediately apparent, were assumed to be significant. Given India's interest in not only the MiG-23 but other aircraft, surface-to-air missiles, and help with naval vessels, closer Soviet ties were useful and probably unavoidable (Weinraub 1973a; Weinraub 1973b). Second, the deal forged a stronger, more durable alliance with the Soviet Union than India previously had experienced.

The deal was the work largely of Indira Gandhi, and though Gandhi's Congress Party was in general support, opposition planners and legislators feared India had secretly offered up basing rights to the USSR and forged a more generalized dependence on the Soviet Union; said one, "We need friends. Not only the Soviet Union, but also we must cultivate the U.S. and China. We cannot be dependent on just one big power." While Indira Gandhi

was beginning a shift towards closer alignment with the Soviets, a great many within the country maintained a vision of India more in line with that articulated by her father, Jawaharlal Nehru, who envisioned India as a secular, non-aligned, modern democratic state with regional primacy and a strong voice internationally; this deal was seen as a negation of that vision.

In 1974 the search for a new fighter aircraft accelerated. The British Jaguar was favored by the military, but an inability to pay for the plane hampered its acquisition prospects. A lack of funds combined with British unwillingness to negotiate on the price continued to hamper India's quest for the British Jaguar, the preferred model, for several years. The French plane Mirage F-1, also was well-liked in India, and the terms, including production rights and favorable interest and repayment schedules, were good: France confirmed both a willingness to establish production lines in India and an abandonment of similar plans in Pakistan. Lingering doubts over the Indian ability to pay for the plane remained, however.

Thus the Soviet MiG-23 seemed an attractive alternative, although a recent restructuring of repayment terms by the Soviets requiring payment in dollars complicated that prospect somewhat (1974), and by 1975 it was thought unlikely that India would seek the Soviet MiG-23 (1975a). A number of factors were at work against the Soviet plane: repeated devaluations of the rupee against the ruble were making it more expensive (though it was still cheaper than equivalent Western planes); a Soviet preference for payment in dollars, which were in short supply in India; and a chronic backlog of spare

parts from the USSR, making servicing difficult and leading to costly delays in training. The Soviet defense establishment made two promises for assistance to encourage procurement: an increase and speed-up in weapons deliveries to all three branches of the Indian forces (Army, Navy, and Air Force), and the establishment of new ordnance factories within India. At the same time, India was to get an undisclosed number of the "latest" MiGs to fill the gap in their forces (the MiG-25, a reconnaissance plane).

Late in 1975, the Soviet Union reversed its earlier decision to restructure payments in hard currency, and the ruble-rupee trade again became a point in the MiG's favor. However, Indian officials remained disgruntled over what they perceived as bullying tactics on the part of the Soviets: demands for bases (especially warm-water ports, which would allow the Soviets easy access to the Indian Ocean), breaches in diplomatic protocol, and stalling in parts supply and building contracts to prevent self-sufficiency in India's armaments industry. Further, Indian analysts argued that, despite the obvious advantage of the ruble-rupee exchange, in the long run Soviet weapons were no cheaper than Western ones once the cost of spares, currency devaluations favoring the ruble, and poor reliability of the systems were taken into account.

It became increasingly clear that India's decision would rest primarily on the payment options that could be agreed upon. Military planners continued to state their preference for the British-French Jaguar, and in November 1975, a deal for 100 Jaguar Internationals, financed at least in part

by a \$203.4 million British trade loan, was eminent (1975a; 1975b; Rikhye 1975; Weinraub 1975).

France continued to express interest in selling its F-1, citing India's high-tech capabilities and infrastructure as factors that would allow easy licensed production locally. French government officials also cited historic ties between the two states and a Western need to counter-balance the Soviets as compelling reasons to press for a sale. Represented at various times by Jacques Noetinger, spokesman for the industry group GIFAS (Groupement des industries francaises aeronautiques et spatiales), defense representative General Raymond Guillou, businessman Olivier Dassault, and Foreign Trade Minister Norbert Ségard, France offered to establish a production line for up to 250 copies of the F-1 in India. France's concerted and coordinated efforts to establish a strong presence in overseas arms markets are indicative of the degree to which the French state overtly supported its defense firms, as described in Chapter Three. The United States and the Soviet Union, of course, also encouraged, prodded and wheedled, but their major arms exports tended to come as part of larger aid packages, and often with (pro forma) contingencies about use and production rights.

Following a regime change in mid-1977, from Prime Minister Indira Gandhi's Congress Party to the Janata Party and Prime Minister Morarji Desai, Defence Minister Jagjivan Ram announced an intention to diversify weapons suppliers, ending India's primary reliance on the USSR. He noted first that India already was receiving Western armaments – reported in the press to be

French AAMs – and would be getting more. He stated, furthermore, that the Soviet MiG-23 had been rejected as India's next-generation fighter. (The USSR continued to promote the MiG-23, with a visit to New Delhi by Commander in Chief of Land Forces Ivan Parlovsky (1976; 1977; Sharma 1977; Tandoor 1977)). Finally, Ram indicated that agreement for an Indian acquisition of up to 40 Jaguar Internationals, including licensed production of up to 100 more copies, could be reached by year's end. By mid-1977 reports of a British deal grew more frequent, and the UK's chances of securing the order were all but guaranteed if they agreed to India's requests for long-term credits and manufacturing rights.

In January 1978, British Prime Minister James Callaghan visited India to promote British exports and to pursue the Jaguar deal. India continued to bargain for better terms, seeking not only the right to produce the plane under license, but also arrangements to sell spares produced in India back to the UK. In February a high-level Indian delegation visited France, the UK, and Sweden (and conspicuously avoided the Soviet Union). Defense Minister Ram anticipated a final decision upon the group's return and reiterated that the decision would turn on such factors as the terms of payment and unit costs. In particular, India insisted on producing 70% of the spare parts for the chosen plane; all potential suppliers (France, the UK, and Sweden) agreed to this arrangement.

Meanwhile, Soviet Marshal Pavel Kutakhov traveled to India to offer the latest version of the MiG-23 for production under license, with a unit price

of about \$3 million, substantially less than the approximately \$9.6 million per plane for the Western aircraft. France offered India rights to produce up to 50% of all future Mirage F-1 orders and promised assistance in establishing a servicing center for hundreds of Middle Eastern and Asian Mirages, as well as substantial technology transfer to assist in production of India's indigenous fighter, the LCA. Britain expanded its offer to include a buyback of old IAF Canberras and Hunters and possible advantageous terms on future Sea Harrier purchases. India stated an interest in purchasing 40 copies of the British-French Jaguar outright, then assembly of another 60, followed by production of another 100 copies from increasingly indigenously-manufactured parts. As offset offers continued to roll in from the various producers, the Indian Political Affairs Committee of the Cabinet seemed set to announce the Western Mirage F-1 and the Jaguar International -- and not the Soviet MiG -- as finalists.

In October 1978, after seven years, India's search for a lightweight fighter appeared finally to come to an end. India and the UK agreed to a £1.2 billion deal for approximately 200 Jaguars, with deliveries to begin in July 1979. The planes included upgraded engines (Rolls-Royce Turbo meca Adour 804) and the capability to carry overwing Matra 550 Magics. Fifteen to twenty planes were to be delivered from RAF supplies and then returned; approximately forty would be built by BAe until 1982, when HAL production was set to begin. Crucial to the decision were the terms of the British loan, the

military preference for the Jaguar, and the production terms calling for indigenous manufacture.

Fighter Planes II

Resolution in the search, however, was short-lived. In addition to supplier pressure and the strong preferences of the Indian military, domestic politics also played a role in acquisitions decisions. The reasons for this are two-fold: despite the significant input into military acquisitions decisions Indian armed forces have had and a notable separation of government and the military, Prime Ministers have nonetheless held the defense portfolio. They have, therefore, been able at times to exert strong influence on acquisitions outcomes. Clearly, finalizing a deal for high-profile weapons systems is a way both to make a mark and establish particular alliance patterns and to distance an new administration from the previous government. Thus, following the mid-1979 installation of Charan Singh's government (Janata Party), the new leadership indicated that the whole Jaguar deal, negotiated under Indira Gandhi and signed into effect by the previous caretaker government, would be reviewed for improprieties. The new Janata party leader, Raj Narain, claimed that bribery and influence had played a part in the deal. Specifically, Narain charged that the deal was finalized by former PM Morarji Desai's secretary, V. Shenkar, and Desai's son, Kantild on a trip to London in early autumn of 1978, before the official closing of the deal, that £58.6 million in bribes were paid to ensure a British rather than a Swedish or French choice.

Finally, he indicated his own preference for the French plane and his feeling that India should have opted for the "superior" F-1. However, although the Swedish Viggen had been a contender throughout India's search, it was ruled out by 1978 because it contained American components (engine technology) for which the U.S. would not authorize transfer. More to the point, the Mirage F-1 likely was not pursued both because Pakistan already was flying Mirages of an earlier generation and also had shown interest in the F-1 and thus was familiar with the plane and its capabilities.

Meanwhile, opposition leader (and former Defense Minister) Jagjivan Ram charged that the new Prime Minister, Charan Singh, approved the deal when he was Finance Minister in the previous government; Singh, who faced a parliamentary vote of confidence on August 22, 1979, denied an early approval of the deal. In the end, the controversy proved little more than a diversion prompted by the vote of confidence that Singh faced (1978a; 1978b; 1978c; 1979a; 1979b; 1979c; Ram 1978; Sharma 1978a; Sharma 1978b; Sharma 1979a; Sharma 1979b).

In the midst of the Jaguar controversy, Defense Minister C. Subramanian outlined a need for more aircraft beyond the Jaguar and expressed interest in Indian manufacture of the Soviet MiG-23. By 1980 India's interest in the MiG-23 had grown, and delegations visited the Soviet Union for flight testing. In January, following quick on the heels of sending its troops to Afghanistan, the USSR offered India a major arms deal, in part hoping that the Jaguar deal might be canceled. A large aid and arms package helped the MiG-

23's chances. Such a deal would return India to a single-source relationship with the Soviet Union and obviate the Janata party's efforts to diversify suppliers over the past 33 months in office. Critics of the deal, mainly in the U.S. and Pakistan, charged that the Soviet offer was an effort to ensure Indian support of its actions in Afghanistan. Whether or not this was true, clearly a sole-source relationship was to the USSR's advantage, and India had, by this time, a long-standing record of acquiring Soviet armaments.

Following the 1979 Soviet invasion of Afghanistan, the U.S. lifted its ban on sending arms to Pakistan and India, opening the door for aid offers to Pakistan (see previous chapter). However, the U.S. also agreed to supply enriched uranium to India, perhaps to show that its reaction to the Soviet invasion was not merely pro-Pakistan.⁴¹ The United States also proposed selling aircraft guidance systems and smart bombs to India; Indian politicians, pointing out that this equipment had been requested prior to the invasion, condemned the American military credits and equipment transfers to Pakistan.

In February, noting the market demand created in large part by the "fickleness" of the USSR and the USA and their political goals, Indian military planners stated an aim eventually to export indigenously-designed helicopters and fighter planes. In April Indira Gandhi, recently returned to office, announced, not surprisingly, that she would not investigate the Jaguar deal,

⁴¹ While the State Department and the Carter Administration supported this enriched uranium transfer, it was not to be; the Nuclear Regulatory Commission failed to approve it

and the next month, a USSR-India arms deal was signed in Moscow, covering tanks, patrol boats, missiles, aircraft, electronics, and rockets. The terms included a 17-year loan at 2.5 percent interest. These terms were generous, even by the sometimes give-away standards of the day: Western deals carried higher interest rates and generally were for a maximum of ten years. For example, the nearly simultaneous offer of U.S. aid, rejected by Pakistan, was for \$200 million in credits at 11% interest. Some analysts noted the timing of the Soviet-India deal: it was announced on May 28, when legislative polling began in several states in which Indira Gandhi was trying to strengthen her Congress-I party's control. American commentators, however, called the deal "scandalous" and accused the Soviet Union of buying Indian sympathy towards the Afghan invasion.

Scandalous or not, the Soviet move paralleled the American offer of aid to Pakistan. Clearly geopolitics shaped regional acquisition strategies and options. At the same time, it is also clear, especially in the Indian case, that domestic politics played a key role in shaping procurement decisions. India's acquisition of the Jaguar was at least in part a Janata Party effort to move away from a single-source weapons relationship with the Soviet Union. Corruption charges were levied just as the government was facing a vote of no confidence, and Indira Gandhi's move back to the Soviet Union indicated a return to Indian preference for dealing with the USSR.

because of what it cited as India's unwillingness to abide by international controls (namely, inspection and monitoring).

The Jaguar program continued to experience difficulties. In June, a British Aerospace official said he could neither confirm nor deny a rumored cancellation of the Jaguar program, as did an Indian Air Forces spokesman in London. However, France had been maintaining constant pressure on India to produce under license first its Mirage F-1 and then the Mirage 2000. Already benefiting from the 130-plane Jaguar deal (the Jaguar was a British-French co-production), French military planners, inside and outside the government, wanted India to cut procurement to 40 more outright, which would leave total procurement at 80 bought outright, with no assembly or licensed production. Rumors circulated that the Jaguar program, if not canceled, would be halved so as to open lines for production of the MiG-23, by now widely believed to have been included in the May deal with the USSR. In response to charges of an arms buildup, India cited numerous factors influencing its decision, including tension in Pakistan and Afghanistan, Pakistan's nuclear program, and American arms in the region, both in Pakistan and China.

In July France made another "irresistible" offer to India⁴²: licensed production of the Mirage-2000, with production rights for buyers in the Gulf and Southeast Asia, if India would sign on for at least 150 aircraft. (France was set to pique India's interest by publicly offering the same terms to Pakistan, which had already requested 35 of the aircraft.) France would go on to offer India full access to Mirage-2000 technology for the LCA project, but

⁴²The Jaguar was originally a joint BAe-Breguet project, inherited by Dassault when they bought out Breguet in 1969. Marcel Dassault reportedly hated the plane and called it "the

the price and the terms were too high. Most technical experts agreed that production of the Jaguar already represented a stretch for HAL's capabilities and that the Mirage 2000 would be quite difficult for India to produce. French officials denied charges of trying to undermine the Jaguar deal. At the same time, Indira Gandhi for the first time confirmed that she was reconsidering the £1.6 billion, 1979 deal for 130 Jaguars (40 bought outright, 45 more assembled, and another 45 manufactured). She mentioned, without providing details, reports of payoffs and said India had decided to produce the Soviet MiG (type unspecified as yet but inarguably some version of the MiG-23; it would turn out to be the MiG-27, or ground-attack version) at its HAL facilities in Bangalore because it would enhance India's industrial base more than the Jaguar program would.

Late July brought confirmation that India was set to acquire the MiG-23, at a unit price (in current dollars) of \$5 million (as compared to the Jaguar, at \$8.5 million, in current figures). Some in Indian defense circles maintained that the Mirage-2000 (pegged at approximately 50% more expensive than the Jaguar) remained the preferred plane. France's next offer was the possibility to get the F-1 now at a "throw-away price" and produce the 2000 later. However, as noted, India did not have the capability to produce the Mirage-2000. France persisted, offering -- as of August 1980 -- to buy back F-1s from Libya or Tunisia which would then be passed to India until the Mirage-2000 was ready; France also agreed to buy helicopter parts produced in India and

ugly camel" and it was assumed that the French had been pursuing an all-French aircraft deal

to allow licensed production of another of their helicopters, the Dauphine (1980a; 1980b; 1980c; 1980d; 1980e; Housa 1980b; Mascarenhas 1980; Niesewand 1980).

In November India finalized an agreement with the U.S. for \$228 million worth of American arms, including tow missiles, launchers, and ammunition, and an offer of another \$190 million more, for howitzers, was pending. At the same time, programs for the MiG-23 UM Flogger C and MiG-23 BN (air to ground) Flogger F programs were finalized, for a total of 85 of the Soviet aircraft, some of which were bought outright and some assembled from knock-down kits. Following a visit by Soviet President Leonid Brezhnev to Prime Minister Indira Gandhi, newspaper accounts reported that India was under pressure to stop receiving American arms; part of this pressure came in the form of material inducement: India was set to receive an unspecified number of MiG-25 Foxbats (reconnaissance planes, along the lines of the American SR-71) (1980f; 1980g; 1980h; 1980i; 1980j; 1980k; 1980l; 1980m; 1980n; Gwertzman 1980; Housa 1980a; Kaufman 1980; Loudon 1980a; Loudon 1980b; Loudon 1980c; Marshall 1980; ; Sharma 1980a; Sharma 1980b; Wilson 1980).

In January 1981 India received its first batch of MiG-23 BNs, which were part of their May 1980, \$1.6 billion deal with the Soviet Union. The ten planes arrived two days before Soviet President Brezhnev visited India. At this point, it was anticipated that India would need to produce up to 350-400

with India since before the Jaguar contract was finalized.

aircraft to replace its aging fleet. Seventy more of the BNs were on order, along with 15 copies of the two-seat trainer version, the MiG-23 UM.

In June India made clear its interest in the Mirage 2000, and an agreement in principle was reviewed by both the Indian Defense Ministry and Dassault-Breguet. As if things weren't complicated enough, however, August brought puzzling reports of an American offer of F-16s, along with production and export rights to the F-5G, to India. The offer, if indeed ever truly extended, came just prior to a visit by Indira Gandhi to the U.S. and marked one of the more out of character overtures of the decade. India was still evaluating the Mirage 2000, along with the Panavia Tornado and the Swedish Viggen. The Tornado was thought by some to be favored due to its two-engine configuration, but it would, as a consortium product, require approval from the UK, France, and Italy, making its acquisition more difficult.

In October, Indian Defense Secretary P.K. Kaul led a team to Paris to discuss acquiring 150 Mirage 2000s (40 to be bought outright, 45 more assembled from knocked-down kits, and another 65 manufactured indigenously, though licensed production would in fact be unlikely due to limitations of Indian industry). Negotiations had been under way since April, with the Indian government wrangling for the best possible terms for the aircraft. Every effort was made to finalize the deal before PM Gandhi visited France on November 12, but this push to close the deal was unsuccessful because of its complexity.

A Memorandum of Understanding for 40 Mirage-2000s was signed January 24, 1982, in a deal worth \$2.4 billion. The deal was for purchase outright, with a license manufacturing option. India purchased the planes, it claimed, to counter Pakistan's F-16s. While Indian planners eventually hoped to assemble a further 40 and then produce under license another 70, only the first part of the deal had been agreed upon at this point. Pakistan's President Zia was also expressing interest in the Mirage 2000, most likely to make trouble for the impending India-France deal.

In October HAL began tooling for MiG-27 production, making it likely that this run would cut into plans to manufacture the Mirage-2000 after the initial purchase of 40; the cost of producing a MiG-27 was estimated at 25% of that of buying a Mirage-2000 (1981a; 1981b; 1981c; 1981d; 1981e; 1982a; 1982b; Sharma 1982).

In 1983, India again juggled its commitments. Production possibilities for the Mirage-2000 were dropped. At the same time, it was confirmed that India was to produce a large number -- rumored between 150 and 200 -- of the Soviet MiG-27, the ground-attack version of the MiG-23 and a top-technology fighter which would enter service in India at the same time as it did in the Soviet Union, at an estimated cost of \$6.5 million per plane. In May 1983, India announced plans to manufacture the MiG-27 at three facilities, Bangalore, Nasik, and Koraput, making manufacture of either the Mirage-2000 or the Jaguar unlikely. Talks already were underway for licensed production of the MiG-29, a successor plane to the MiG-23/27.

By January 1984, it was clear that India would not exercise the production option on the Mirage-2000; the MiG-29 was still under consideration. Officially, India had until June to exercise its Mirage-2000 production option, and France in March took advantage of a postponement (due to the anticipated death of Soviet President Andropov) in a Soviet visit to India by Soviet Defense Minister Dimitri Ustinov to pressure India to buy an addition 40 Mirage-2000s, for local assembly with full technology transfer . (1983a; 1983b; 1983c; 1983d; 1984; Copley 1983; Elliott 1984; Sharma 1983a; Sharma 1983b).

India's first domestically-produced MiG-27 flew in December, 1984, and on January 11, 1986 the MiG-27, renamed the Bahadur (or, Valiant) was formally inducted into service with fly-pasts and a supersonic run. In April 1986, India announced its intention to procure nine Mirage-2000s in addition to the 40 already purchased; this followed Pakistan's announcement of its intention to seek another 60 F-16s.⁴³ Thirty of the Mirage-2000s, armed with Matra Super 530D and Magic Missiles, and DEFA 30mm cannons, had been supplied as of April 1986. In July, France, in an effort to persuade India to produce under license the Mirage-2000, offered a share of Dassault Rafale technology for India's Light Combat Aircraft (LCA), but this offer was rejected by the Indian Minister of Defense.

⁴³ It also came to light that, in response to the earlier batch of 40 Pakistani F-16s, India in January 1980 had taken delivery of Soviet MiG-29s; India was the first state outside the USSR to get the planes.

Afterburn

In March 1987 India approved a counter-trade (offsets) policy requiring all future arms imports to be offset by between five and 100 percent of the procurement package (1985; 1986a; 1986b; 1986c; 1987; Ali 1985; Brown 1986; Gupta 1986; Roy 1987; Sharma 1987).

In 1990 the U.S. again offered the F-5 to India, including tooling, local manufacturing, and exclusive worldwide production and repair rights. The cost to India, for administrative expenses only, was reported to be \$1.5 million; the estimated replacement cost of the tooling alone was \$140 million. India did not take up the offer, at least in part due to concerns that it would be seen as a political slight, given that the F-5 was a 1970s-era, export-only aircraft. The LCA continued to experience delays, and India considered upping the number of MiG-27s produced (in the end, India did not increase MiG-27 production). By 1992, the rupee-ruble trade had ended, and the Soviet Union was demanding payment in a convertible currency. India also found it difficult to keep its MiGs serviceable due to the unreliability of CIS (Commonwealth of Independent States, many of which inherited parts of the Soviet defense industry) suppliers, and in 1993 it turned to Israel for upgrades on aging MiG-21s and -23s. In 1994 India considered teaming with European and Israeli partners to sell Soviet weapons (Su-30, MiG-29) abroad, but this effort did not come to pass (1990a; 1990b; 1990c; 1992a; 1992b; 1993; Cooper 1994; Gidathubli 1992).

Between 1973 and the end of the 1980s, India contracted with three major suppliers on both sides of the East/West divide for close to 500 fighter aircraft. These deals ranged from taking delivery of planes designed and produced in the exporting state (Mirage-2000, MiG-23) to assembly from knocked-down kits (Jaguar) to licensed production based on indigenously-manufactured parts (Jaguar) to complete transfer of technological know-how (MiG-27).

Competing Models Of Technology And Development: India And Japan

As part of its self-sufficient developmental and militarization agenda, India was and remains committed to developing a fighter aircraft indigenously, the LCA (Light Combat Aircraft). (The following discussion draws on Smith 1994.) While ideologically committed, successive Indian governments failed to implement policies, funding practices, and infrastructural linkages necessary to the LCA's success, as described below. A lack of horizontal links between various industries (both civilian and military), a lack of coordination between the armed forces and industry, and a scatter-shot search for technology, rather than alignment with one or two partners, undercut the efforts Hindustan Aeronautics Limited (HAL).

While initial foreign participation on the LCA was intended to be kept to a minimum, by the mid-1980s it was clear that significant involvement would be required. In particular, engine technology is crucial in aircraft development, as other design specifications require knowledge of engine

capability and therefore are dependent on some general understanding of the intended powerplant. Hindustan Aeronautics Limited (HAL) set out to design an engine for the LCA entirely in India. However, they have not yet managed to do so. Other states, including Sweden, Brazil, Canada, and Israel, also draw on foreign, mainly U.S., British or Soviet, technology for engines, and it is unlikely that India will succeed where others do not. Once it was acknowledged that some outside support in engine development would be required, BAe seemed a likely candidate for involvement due to its presence in India with the Jaguar program. Additionally, Indian manufacturers were disappointed by their experience with the French Mirage-2000, which was never produced locally, making a turn to France seem unlikely.

In 1984 India solicited proposals for increased foreign involvement, not just in engines but in systems ranging from fire-control radar to electronics, composite materials, and fuselage development, and had received offers of help from France, the UK, Sweden, Germany, and the Soviet Union.⁴⁴ The Indian government remained committed to indigenization in principle, and set up the necessary infrastructural shell, namely a design office exclusively for aeronautics (Aeronautical Design Agency, or ADA) but the linkages, authority, coordination, and direction to see the program to completion were never instituted. Through the mid- and late-1980s, the LCA languished, falling behind schedule and budget.

⁴⁴ The following discussion of the LCA draws heavily on (Smith 1994:169-176).

Additional foreign design help was solicited, and BAe (British Aerospace), Messerschmidt-Bolkow-Blohm (MBB), Dornier (Germany) and Aerospatiale (France) all submitted design proposals, and in 1986 the United States also became involved in the project by agreeing to the export of General Electric's F404 engine. Three American aerospace firms (Northrop, Grumman, and Lockheed) also began to show interest LCA collaboration. Despite continued government insistence on the LCA's development, critics inside and outside India condemned it as ill-timed, ill-conceived, under-funded, and a burden on the rest of India's defense budget. One of the LCA's biggest stumbling blocks, however, was deep-seated preference among Indian Air Force officers for proven foreign technology and a tendency to set unattainable design requirements for indigenous projects. In 1987 American Secretary of Defense Caspar Weinberger pledged American support for the LCA, but his announcement was followed by public negotiations with France (for both the SNECMA M88 MkII and more generalized close links with the Rafale fighter plane, which uses the GE F404 engine) and the UK (for the Turbo-Union RB199). In 1988 the U.S. offered access to advanced technology through Indian participation in American laboratories, and the Soviet Union offered to overhaul and update the MiG-21. As part of its late-1980s offer, Soviet industry offered to assist in establishing six plants for spares which could then be sold to third-party recipients via the USSR in a deal estimated to be worth up to \$1 billion (a boon when compared to HAL's then-current export income of \$260 million a year). A strike against the Soviet offer, however, was a

widely-perceived worry over poor export potential; India was hoping to turn the LCA into a money-making venture. Given the high foreign technology content of the plane as it currently stand and the unlikely prospect that all states contributing technology would approve re-export, its chances as an income-earner are quite dim. According to one scholar (Smith 1994:143), “Indians now joke that the only indigenous aspect of the LCA by the time it enters production will be the pilot.”

“In the current climate the long- and short-term prospects for the Indian aeronautics industry look bleak. Hampered by bureaucratic infighting and rendered less capable than it really is by the unrealistic demands of the Air force, deprived of an input into the decision making process and lacking the necessary political patronage, HAL is unlikely to develop its technological capabilities far enough to fulfil its undoubted potential. In this milieu there is no opportunity to close the gap between present levels of capability and the increasing rate of technological change in the defence industries of the West” (Smith 1994:176).

As the LCA program makes clear, India has failed to develop a successful local aerospace industry. A number of factors contributed to this failure. First of all, the technology gap has hurt India’s prospects in several ways. Not only does India lag in technological know-how, the government has yet to implement those other aspects of technological success found in the core: strong horizontal links between firms and across industries, clearly-articulated goals and appropriate leadership to achieve it, and an inability to acquire advanced technology along with inability to integrate that which they do have. The rhetoric, then, of self-sufficient non-alignment was hollowed by both systemic developmental inequities and domestic inabilities to steer the

course Nehru charted. According to Smith, India's inability to indigenize has led to an erosion of not only economic security, through a weak technological base and a dependence on others for weaponry, but also its sovereignty more generally.

Japan's development experience has been quite different, due at least in part to a strong national ideology promoting not just military technology, but technological capability more generally. This strategy has allowed Japan to edge ahead of its major supplier: the U.S. (Samuels 1994). Samuels traces the rise of Japan to prominence in technological innovation to what he terms a "technonational" ideology, or one linking development success to technological – largely civilian – success. Noting Japan's consistently low spending on defense, Samuels documents Japan's rise to prominence in a number of "dual-use" technologies, or technology with both commercial and military applications. He attributes this to an overarching ideology in Japan which equate national security with economic strength *and* technological superiority. Thus, in Japan there is no distinction between the "civilian economy" and the "military economy" such as is found in the United States. Rather, firms compete for and cooperate on both military and commercial research and design and contracts, and there is tremendous vertical (within firm) and horizontal (between firm) diffusion of technology and process know-how; the military economy is part and parcel of the civilian economy.

On the other hand, the United States has had the world's largest military research and design complex yet has not maintained competitiveness

in a number of areas with significant military applications (including ceramics, electronics, and compound materials). Rather, American military technology in certain sectors has failed to remain competitive because it is increasingly removed from the civilian economy and thus not subject to competition or the benefits of advances found there.

These choices were made according to very different conceptions of national security – security ideologies – in the two countries. In the United States, national security strategy was based on territorial defense, and there was an ideological and tangible gulf between political and military strategy and economic development. In Japan, “technology and production, as well as territory, are each seen as national interests that can and must be defended” (Samuels 1994:4). “The Japanese may have demonstrated, like the Venetians and the Dutch before them, that butter is as likely as guns to make a nation strong and, further, that nations cannot be strong without advanced technology. In essence, the Japanese story is one in which ideology and institutions are linked, shaping strategic choices based on different conceptions of national interests than are widely accepted in the United States” (Samuels 1994:4). The U.S. made massive R&D outlays in specialized military firms without serious efforts to link the processes or results to civilian applications. Thus while instances of “spin-off” abound, in recent years military innovation has increasingly “spun-away” from civilian applicability. In Japan, however, the notion of “spin-on” was a guiding principle, and only a small and ever-decreasing percent of its state R&D expenditure went to

military firms. While Evans (1995) argues that the institutional infrastructure and development of economies impacts the role of technology, Samuels concludes that the “institutional development of whole economies (and thereby the trajectories of innovation and growth) depends on the way technology is understood strategically and the role it plays ideologically” (Samuels 1994:3). “If strategists have not fully grasped the way ideology can precede strategy, neither have theorists fully comprehended how political and military choices shift the trajectory of national economies. Different choices in Japan and the United States, derived from different ideas about national security, have altered the institutions of the two economies. National security was the central fact of U.S. science and technology policy, whereas Japan experienced just the reverse” (Samuels 1994:337).

Japan, like India, clearly linked technological prowess and development success. However, Japan was able to align with the U.S. in ways that India never managed with any of its suppliers. Clearly, Japan’s development and distributional needs have not been nearly so great as India’s, but its unified vision of technological development, along with state-guided support for horizontal linkages and alliance, have been important to Japan’s technological success. “The evidence ...is that Japan does indeed possess a coherent national system of innovation and production. That system is not driven by a universal economic logic, rather, Japan’s national system reflects a national ideology. The Japanese teach us that nations count, even in a global economy. They foster the geographic collection of skills and resources, generally, but by

no means exclusively coextensive with their citizenry. Ideas about national security “sell” these choices, and ideas about justice and security enable a people to define and then defend themselves.” (Samuels 1994:330).

CONCLUSION

Left out of accounts of Indian arms acquisitions are complete accounts of India's seven-year search for its new fighter plane: the test-flights of the French Mirage F-1, the Swedish Viggen, the British-French Jaguar International and the Soviet MiG-23/27; the high-level visits between defense, Foreign Ministry, and industry official from India to each of these countries and vice-versa; the pouring in of offers from the competing sellers, with each round bringing more generous terms than the last; the signing of a £1.6 billion deal for the Jaguar in late-1978, to include licensed production and parts-sales rights; the charges of corruption following the regime change in 1979, and subsequent, sweeter offers from the Soviet Union and France for upgraded equipment; the signing of new deals for the Mirage-2000 and the MiG-23/27, all followed by serious reconsideration of the original Jaguar contract. All told India acquired or produced 135 Jaguars, 49 Mirage-2000s, and 300 MiG-23/27s. India was the first state outside the Soviet Union to receive the MiG-27 and the MiG-29 (and the first to get offers of co-production for the latter) and the first importer of the Mirage-2000. India in all cases tried to get rights to all technology, even if it did not manufacture or produce locally, so as to

avoid possible difficulties with spares down the line (as happened, for example, with Egypt vis-a-vis the Soviet Union).

In India's case -- a particularly difficult and compelling one -- arms and in particular fighter planes are not merely symbols of sovereignty but tools of sovereignty whose uses changed over time. At first glance India seems an exemplary case of collecting symbols of sovereignty, what Smith terms an *ad hoc* arsenal. A close look at the Indian case suggests that leaders were trying to enhance sovereignty through production of sophisticated aircraft; the production capability rather than the aircraft was key to this process. Articles and editorials regularly appeared singing the praises of both the Indian Air Force and its defense industries, especially Hindustan Aeronautics Limited (HAL). India, along with South Africa and Israel, was one of the earliest states outside the industrialized core to engage in licensed production, and it did so with a range of producers⁴⁵ for a range of products.⁴⁶ India in some ways pioneered the process, as least in defense technology, and a number of states (Greece and Spain, for example, as will be discussed in the previous chapter) would later use it in more sophisticated ways. India didn't make some of the links that Greece and Spain did, but in many ways this doesn't make sense in the India context. India was committed to three things in relation to its national security: defense of its extensive borders; development of sophisticated weapons production capability; and non-aligned self-

⁴⁵ Including France, Germany, Japan, South Korea, the Netherlands, Singapore, Switzerland, the United Kingdom, and the USSR.

sufficiency. While its defense goals may not have been clearly articulated, we see India trying to do what other states did without the political and economic linkages that those states enjoyed and/or cultivated. Indeed, as producer states were ramping up exports to help their own flagging industries, India was targeted, less as a partner in some larger sense of a durable alliance, but as a partner in the narrowest sense: as a market. India then tried to bank this interest and turn it into its own vision of itself as a regional (or more) hegemonic state.

A long history of varied acquisitions and suppliers makes coordination and supply difficult. Furthermore, indigenization of systems has not been achieved (Smith 1994), so that the overall impression is that military objectives have had little impact on India's actual arming strategies. Rather, "symbols of power rather than the principles of defense [are] responsible for defining what the country imported (Smith 1994:128). Brass (1994) notes a strong "leftover, postcolonial desire of India's forces for prestigious foreign equipment" (Brass 1994:49). While India aimed for self-reliance, efforts at indigenous technological advances were under-supported; non-core countries routinely under-invest in R&D but strive nonetheless to develop an indigenous capacity as part of their development strategies (Malecki 1997); India is no exception. Finally, in the end its military officials preferred proven technology developed in major supplier states. In recent years, India has made some efforts at shifting to a major weapons exporter, but it has paid little attention to

⁴⁶ Among others, transport aircraft, fighter aircraft, trainer aircraft, patrol craft,

developing either the necessary markets or technological base to do so. The result was inchoate force supplies coupled with no strong local industry.

In India, the push for indigenization of military technology was not a wide-supported goal in either the military or in the government, and both capacity and even basic support for it varied by regime and as a function of foreign exchange reserves. At the same time, India was severely limited by an almost stunning lack of coordination between a) branches of the armed forces, b) government and military officials, and perhaps most importantly, c) foreign policy and defense policy. India has not had much continuity in its acquisitions strategy, and basically has gotten as much as it could when it could (when it could exploit the geo-politics of the Cold War, or when its foreign exchange reserves were relatively more flush), and during these times it has bought some of the most expensive and advanced military equipment (fighter planes, to be sure, but also naval equipment) with little regard for the threat environment India claimed it faced; rather, with hindsight, it looks like the key continuity in its strategy has been getting as much of the best that it could. In fact, some of the key technology transfer arrangements it negotiated were dropped (e.g., licensed production plans for the Mirage-2000 were never followed through; nuclear-powered submarines were returned to the USSR). So while it is fair to say that many of India's purchases were symbolic, it is much less clear that diffusion is at work, as the institutionalists would argue. Rather, the strategy has been almost a default one adopted in part as a

minesweepers, submarines, main battle tanks, missiles, and various radar systems.

function of semi-peripherality: efforts to avoid technological dependence, India's ability to exploit the USA/USSR/China situation, currency problems, and chronic budget concerns have all contributed to the "drift" in its acquisitions. However, there certainly are states which, through tremendous organization, capacity and alliance links have been much more concerned with (and have prompted concern among suppliers over) military technology, such as Japan. Paradoxically, at least in part because of its alliance with the US, it could pursue technological advances, and even autonomy in technology, in ways that an ostensibly more autonomous state -- India -- could not.

India, along with other non-core states, has claimed that a new Cold War is emerging, a North-South struggle, based on the control of high-technology and dual-use items (Brzoska and Pearson 1994), and this technology gap clearly has worked against Indian efforts at local technological success. At the same time, India's strategy of pursuing weapons – and technology – from many sources hampered its goals of developing a military industry. The Soviet Union was a necessary partner due to India's foreign currency crises and its reluctance to align with the West, but it did little to boost India's technological capabilities: the USSR was "habitually disinclined to release technology and know-how" (222). It was required to keep Western and Soviet technologies (systems, tooling, blueprints, etc.) separate, requiring them to build duplicate facilities with no points of contact. The pursuit of

multiple technologies didn't free India developmentally, as had been hoped; rather, it was a limiting strategy which constrained India's larger development goals.

CHAPTER SEVEN

CONCLUSION

The question of whether states are best seen as rational actors, world-cultural vessels, or components of a world capitalist system is a prominent theme in the sociology and political science of international relations today. At the same time, the field of security studies itself is undergoing a reevaluation in light of both recent real-world changes and development in international relations theorizing. While some theorists argue in favor of maintaining a narrow definition of security and security studies, that is, one informed by the realist pre-occupation with military preparedness and defense of territorial integrity, a number of new works argue for widening security as a concept to encompass such factors as ideational pressures, sustainable development, human welfare, and environmental concerns (see (Buzan, Waever and de Wilde 1998) and (McSweeney 1999) for two approaches to this debate). I have aimed in this dissertation to address both of these debates from a new perspective, that of the political economy of the world system, and from new methodological vantage points, drawing on both quantitative and qualitative analyses of major weapons system in a broad range of states and over the course of their product life-cycles.

This study has focused on one aspect of the international weapons trade -- seemingly anomalous transfers of lightweight fighter planes between the years 1970-1990 -- with two broad goals. First, in examining what is

essentially irrational militarization behavior by states, I hope to speak to gaps in the traditional security studies literature, which is overwhelmingly dominated even now by realist (geo-political and national security) understandings of security, by developing an explanation which moves away from the focus on levels of analysis and rationality and incorporates aspects proposed by the "wideners," including the possibility of normative components of security and the importance of economic goals and pressures. Second, in looking at the interplay between changes in the world economy and states' adoption of global norms, I explore avenues for theoretical linkages between sociology's "new institutionalism" and theories of international political economy.

As a way to begin parsing out states' goals in any given weapons transfer, I have focused on the domestic identity concerns of recipient states. In doing so, I have drawn on recent work in world systems theory which focuses on power and the subjective component of hegemony. If the current hegemony has been marked by the idea and the fact of economic and political integration as well as the perceived triumph of the liberal project (Buzan, Waever and de Wilde 1998) then the implication is a shift in the conception of the sovereign state and its security requirements such that integration and development are indeed national security concerns.

In Chapter Two I delineated changes in the world arms trading system over the course of the twentieth century and tried to make clear the links between the arms trade and the larger world economy. This discussion

substantiates my claim that, much like the trade patterns of other commodities, the arms trade mirrors changes in the economic and political fabric of the modern world system. I also presented a political-economy framework for arms transfers based a definition of domestic identity derived from an understanding of a state's location in the world-system as well as its regional threat environment and its domestic developmental goals and political power configurations.

The statistical analyses presented in Chapter Four make clear the limitations of existing theories of arms transfers. The case studies presented in Chapters Five and Six make clear the limitations to adopting any one narrow approach to arms transfers and national security. Rather, as described in Chapters Five and Six, states have a broader agenda of inter-state linkage and economic growth which can, at times, be cast as national security concerns. The acquisition of sophisticated, high-technology, high-prestige weaponry, such as fighter planes, is one area in which states can successfully link these three diverse goals. A review of the findings follows, and a discussion of the theoretical implications ends the chapter.

Pakistan

Geo-politics clearly put the F-16 within Pakistan's reach. Had the United States not felt compelled to send arms to Afghanistan, Pakistan would not have received the generous aid package and advanced weaponry it did. At the same time, it was Pakistan that requested – demanded – the F-16 as a

condition of accepting aid and acting as a conduit for arms to Afghanistan. Geo-politics framed the availability of aircraft, but Pakistan set the terms – for its first batch of F-16s – for its acceptance of them until the availability option ran out (i.e., the Soviet Union pulled its troops out of Afghanistan) and domestic politics, as described below, made continued American support untenable. Finally, from a supplier perspective, there is always some degree of pressure from industry and the Department of Defense, both of which stand to gain from foreign transfers (even when they are granted as aid). In the case of Pakistan, however, there was also a great deal of reluctance to send arms on those grounds alone, and an explanation based solely on supplier profit motive does not capture additional goals and pressures associated with the aircraft transfers.

Pakistan's primary defense concern and impetus for arming was – and is – India. The deployment locations of the F-16 aircraft, nearer to India than to Afghanistan, indicate that Pakistan's neighbor, rather than the Soviet "threat" in Afghanistan, drove this particular acquisition. The planes were militarily useful, but they were also, as Eyre (1997) and Anthony (1990) have described, symbols. This symbolic role of the acquisitions is discussed below.

Given the state-supported fanfare greeting the arrival of Pakistan's first F-16s, and the overall level of awareness and outrage surrounding the embargo of the second batch, it is safe to say that as symbols the aircraft were important to a domestic audience. Thus it is likely that there was some attempt to use the aircraft as either tools of regime legitimation or as tools of

appeasement (of the military), or both. The degree to which these efforts were successful is more difficult to say with certainty, but this study is less concerned with the eventual effectiveness of a strategy than with the question of why states acquire particular weapons systems. Domestic politics, or factional interest, theories do not, in and of themselves, explain the particular choices Pakistan made when seeking the F-16, or when bargaining later with other states for other aircraft.

In the Pakistani case, the F-16 aircraft were symbolic of two things. First, they were an indication of U.S. support for a government and its nuclear weapons program. Second, they were symbolic of a cutting-edge military (though Pakistan's overall military was not cutting-edge, despite the addition of new equipment). These symbols were intended for consumption by a domestic audience and by India, respectively.

Few political-economy concerns evident in the other case study states hold in the Pakistani case. There are a number of reasons why this might be so. First, while Pakistan sought the "approval" or recognition that the acquisition of advanced weaponry would imply, its leadership did not seek formal integration into existing military or political structures, as did Spain and Greece. Second, Pakistan has been dependent on foreign aid for its military needs and has neither a developed military-industrial complex (save its military nuclear program) nor the desire to develop one. The pursuit of technology transfer and production rights was less integral to Pakistani national security than were flying and displaying the aircraft.

Spain

Spain was not located along a fault-line of the Cold War. Although it was strategically important enough to the United States for it to supply Spain with weapons, the US did not pour arms into the country as it did, for example, into Egypt after that state first kicked out Soviet advisors and then made a “cold peace” with Israel. At the same time, Spain did in the 1970s and 1980s develop a cordial relationship with the Soviet Union, which it was able to use occasionally to pique the interest of the United States. It is safe to say, though, that geo-politics did not shape Spain’s acquisitions in any significant way.

While Spain has had several potential threats of conflict against which it has armed, including the Strait of Gibraltar, its holdings in North Africa, and the Basque nationalists within its own territory, it has not faced a major conflict for which it required advanced fighter aircraft. Rather, its need for advanced weaponry was defined by its aspiration to join NATO.

The two centrist governments in office after Franco’s death were committed to NATO entry, and as such, were committed to an American plane. The Socialists were, while in opposition, opposed to NATO entry and to either American plane; rather, they insisted that a European plane, preferably the Panavia Tornado, was appropriate. Once in office, however, the Socialists maintained Spain’s recent NATO membership and signed on to the American F/A-18 deal, from which Spain received considerable offsets and production rights; they also used the American bases on Spanish territory

as a tool for gaining maximum terms for the transfer, the importance of which are discussed below. So while factionalism surrounded the fighter planes deal, it did not shape the final decision.

Spain was slated to join the EEC/EU, and much of the Spanish population supported this link. The bid to join NATO was much less popular, however. The Spanish government effectively linked NATO membership to joining the EU for a domestic audience, and linked acquiring American fighters to American support for Spain's NATO bid. Thus not only was the fighter plane deal an issue of national security, but its NATO bid, logically, and its EU bid, less intuitively, were also cast as such.

The Spanish government effectively linked four foreign policy issues: basing rights for the US, Spanish accession to the EEC/EU, NATO membership, and fighter aircraft acquisitions. In the end, it was offsets, technology transfer and production arrangements that shaped the final decision, a recurring pattern in recent semi-peripheral aircraft acquisitions.

Greece

Like Spain, American military bases were housed on Greek territory, and NATO bases also were located there. While it was geographically important to both the US and NATO, and was an important part of NATO's Southern European defense planning, it, like Spain, was not along a Cold War fault line. Greece was reliant but not dependent on the US for arms. Unlike Spain,

Greece felt a real threat to its territorial integrity from Turkey, and events in Cyprus crystallized this concern.

While sections of the Greek population were strongly anti-American, I have found little evidence for party politics that would explain Greece's split purchase. The Socialist party opposed an American plane purchase while in opposition, but did not maintain this position once in office.

Unlike Spain, which linked its fighter aircraft to other, controversial goals (integration) for a domestic audience, Greece linked its acquisitions to goals for supplier consumption. Thus its split purchase, the American F-16 and the French Mirage-2000, catered to two of its key supporters in recent Greek bids to enter the EEC/EU and to reenter NATO. France also had been an ally in Greece's ongoing altercations with Turkey. The acquisitions also were intended to send a message to Turkey, which had recently acquired the right to manufacture the F-16 under license; not only could Greece acquire the F-16, it could also acquire the Mirage-2000.

Like Spain, Greece linked its acquisitions to state-building goals, namely industry development and political and economic integration. It received generous offsets from both its suppliers.

India

India was, in many ways, in a unique geo-political context. While not at war, it was in a state of readiness for war with two different adversaries: Pakistan, which it could handily defeat, and China, which it likely could not but which

was in fact quite unlikely to stage a conflict with its southern neighbor. India also had developed a robust relationship with the Soviet Union, and each looked to the other in the area of arms, one for a market and the other for supply. Despite this relationship with the Soviet Union, as well as a tendency to support its positions in international arenas (such as the United Nations), India maintained a non-aligned position and cannot be characterized as a client state, nor even as a state with a sole-source weapons relationship with the USSR. Geo-political factors alone, then, do not account for India's acquisition of a number of fighter aircraft types, part of what Smith has called an "ad hoc arsenal" (Smith 1994).

As indicated above, India arms against two primary adversaries, China and Pakistan. Its borders are long and its terrain varied, so India has, by some measures, a range of defense needs that might be met by acquiring a range of aircraft. But its willingness to seek a variety of suppliers, which can be costly in terms of operational efficiency, is not accounted for by defense needs alone. In particular, the acquisition of the Mirage-2000 can be interpreted as a direct response to Pakistan's F-16s. However, the Mirages were less a military response – India already flew a range of advanced British and Soviet aircraft and certainly had access to additional Soviet types – than a symbolic one.

Looking at India's domestic political situation goes a long way towards accounting for its almost erratic weapons collecting between 1970 and 1990. During this time, the Congress Party lost power for the first time in modern India's history and, following two successive Janata governments, regained it.

It was the first Janata government that placed the order for British Jaguars, and the second that threatened to cancel it. Indira Gandhi, returned to office when Congress regained power, did not cancel the contract, although she did alter the number acquired. It was under Gandhi that India reestablished ties with the USSR in armaments, ordering first the MiG-23 and then producing under license its ground-attack version, the MiG-27. Factional interest theories do, then, answer some questions about India's diverse acquisitions, but do not explain an additional aircraft purchase, the Mirage-2000, or India's bargaining for production rights.

As just indicated, India's acquisition of 40 advanced Mirage-2000 fighter aircraft from France can logically be seen as a symbolic response to Pakistan's F-16s. The Mirage's symbolic import as a new, Western fighter plane exceeded its strategic rationality.

India has developed a sophisticated indigenous military-industrial complex, partly through technology it has developed on its own but largely through technology it has imported. It has also tried to achieve its development goals as a non-aligned state. Its non-aligned status, however, did not preclude its developing a semi-dependence on the USSR for military technology. The Janata Party's decision to purchase and produce the British/French Jaguar International was an effort to diversify India's supplier and technology base. The resumption of major Soviet arms and aid deals, of which the MiG-23/27 was a part, ensured Indian access to sophisticated weapons on reasonable terms.

India was not the first state to forge technology transfer and licensed production deals with its suppliers, but it has been at the forefront of embedding these processes in arms transfers to the semi-periphery in general. Few states outside the core have developed their domestic defense industries to the degree that India has (South Africa and Israel are notable exceptions, and Sweden, a small core state, also exhibits an advanced military production capacity). The cost in developing the necessary technological base and productive capabilities are daunting for any state, and those without the resources, both in terms of skilled work and financial inputs, to devote to the project are at a distinct disadvantage. As Green (1995) notes, no state is independent in its military production, but some states are more dependent than others, and this is particularly true in the area of technological advances. However, India has seen only limited success in actually acquiring full production rights and, more importantly, integrating and indigenizing technology from an array of sources into its own military industry. Thus its developmental goals have been hampered rather than boosted by its wide-ranging quest for technology as well as consistent lack of domestic political support for local industry.

Is there a global norm of national security? How can theories of the political economy of the world system strengthen such a view? It is easy to use culture, in effect, as a residual category, assuming that those transfers that are not

explained by existing theories – theories which although perhaps incomplete have been useful nonetheless – must be the result of cultural factors. It is more difficult to discern the outlines of a global culture, and that is particularly true in a study that focuses on a particular industry segment and commodity, as this one does. Is there a middle ground, moving beyond culture as a residual category yet stopping short of claiming, with little empirical evidence, that an overarching and overriding global culture guides state action?

Cultural theories as applied to arms transfers are applied in two ways, one that might be characterized as a “thin” view of culture and the other a “thick” view, with the former an attempt at partial explanation and the latter an attempt at fuller explanation. In a thin, or weak, application of the theory to arms transfers, weapons can be seen as symbols; they are, in this view, symbols of a number of things, including strength -- alliance, and the modern state -- to be deployed for a variety of audiences -- including suppliers, domestic constituencies, and regional adversaries. This weak application of the theory readily augments the standing realist interpretations of arms transfers, all of which are borne out in varying degrees in this study (and in other arms transfer studies critical of unreflective realism, such as the work of Eyre 1997). However, such an application is unable to support the stronger assertion of a global culture, one which includes normative components of the modern state *unrelated to other systemic processes*. It is short-sighted to think that an object as “real” – as destructive, expensive, regulated, and potentially controversial – as military aircraft would be purchased, time and again, purely

for symbolic reasons. Even if that were the case, to say that aircraft are symbols does little to move towards a systematic understanding of the ways that symbols – a cultural artifact – come to be such.

A thick application of the cultural or ideas perspective seeks to overcome this weakness by positing a global culture that determines a number of processes, including arms acquisitions. A growing body of literature finds some support for a normative component of national security, and the relatively widespread appearance of multiple systems in a range of states suggests factors beyond rational, defense-driven goals. Ultimately both of these efforts, the thin and thick applications, come up short. If it is not possible to discern a global culture of which symbols might be a part, are there other processes at work that might animate normative components of what is in large part a realist concern?

Inroads can be made by paying closer attention to two goals not expected by existing theories of arms transfers that were evident in three of the four case study states and that are easily understood from a political economy or world systems perspective: industrialization and integration. India, Spain and Greece all linked fighter plane acquisitions to technology transfer and production rights, and they all attached explicit political and economic linkage and integration goals to the transfer. In Spain and Greece these included integration into the EEC/EU and NATO, and in India these included first distancing itself from its primary supplier (with the Jaguar deal) and then returning to it (with the MiG-23/27 deal). Spain and Greece were

particularly successful in using reverse leverage, based on their geographic position, historical circumstances, and the presence important military bases on their territory, to negotiate long and hard for these terms, and India was to a lesser degree, successful largely because of the potential size of the market it represented and the Soviet need for trading partners.

While other analysts have made a connection between weapons acquisitions and developmental goals in recipient states (see Mullins 1987 for a critical review and a sophisticated statistical debunking of the literature as it relates to peripheral and semi-peripheral states, and Green 1995 for its limits in Japan), the more complex link between development goals, political and economic integration efforts, evolution in the terms of transfer, and reverse leverage has not been made. One factor has emerged as being particularly important: the changing nature of the way that arms transfer deals are conducted. As indicated in Chapter Two, it was not until the 1970s that the commercial aspect of arms transfers assumed importance in the post-war trade; until that time, the bulk of transfers were gifts, loans, and sales from the US to its European allies. By the 1970s, however, a range of states across Europe as well as the United States and the Soviet Union were increasingly needing to transfer weapons for hard currency, and the group of recipient states was growing more sophisticated in its demands for arms. Semi-peripheral states, including those in this study, either with access to cash or with geo-strategic importance, came to expect not just weapons transfers, but weapons transfers with additional benefits for the receiving state.

States have a slew of goals cast as national security, goals that fall outside security in the narrow, realist sense and the one-size-fits-all definition offered by the institutionalists. Rather, national security is made up of two major parts: domestic identity and global constraints, such as geographic location and technological capacity. Based on the cases summarized above, and expanding on existing work on the arms trade, security and sovereignty, I suggest that national security is composed of a military/security component (as described by international relations theorists), and a normative, or ideological component (as has recently been hinted at by the new institutionalists, *as well as* developmental (economic) and political linkage components, which theorists of international political economy would expect. More specifically, these factors contribute to the definition of national security as a global idea variously, changing both by state and over time, so that the acquisition process for high-technology weapons systems comes to be defined not by security needs based strictly on the assessment of credible threats, but is influenced in part by norms regarding the secure and sovereign state. However, the idea of norms makes little sense outside of a larger political-economy framework. Only by taking into account power relations between states, including the capacity for reverse leverage and the constraints of technological dependence, and the development trajectories of individual countries, do the diverse security goals evident in this study begin to appear coherent. And only in the context of the world system of a given historical

moment can a particular conception of security – in this case, developmental and political as well as military – be said to operate.

If national-level theories describe push and pull factors, system-level processes can be said to be definitional and sub-national ones mitigating. Domestic politics transform norms through local dialogue regarding economic and political linkages external to the state by casting the dialogue in terms of national security. The realization of national security needs, though they may be part of a global institution regarding the modern military and the modern state, is set in motion by the economic and political needs of both suppliers and recipients. These needs are framed by the world-system within which states must operate.

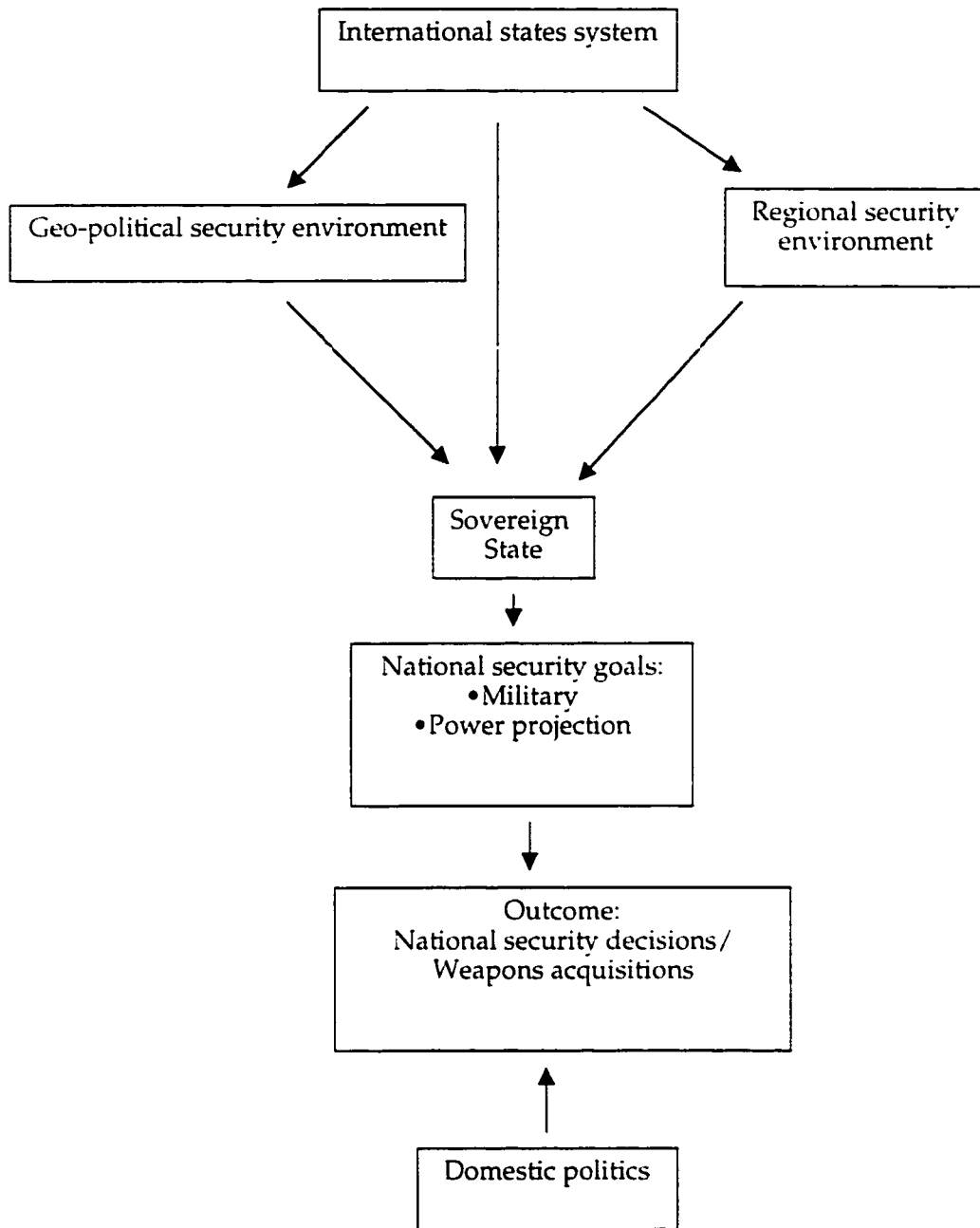


Figure 2.1
Realism and National Security

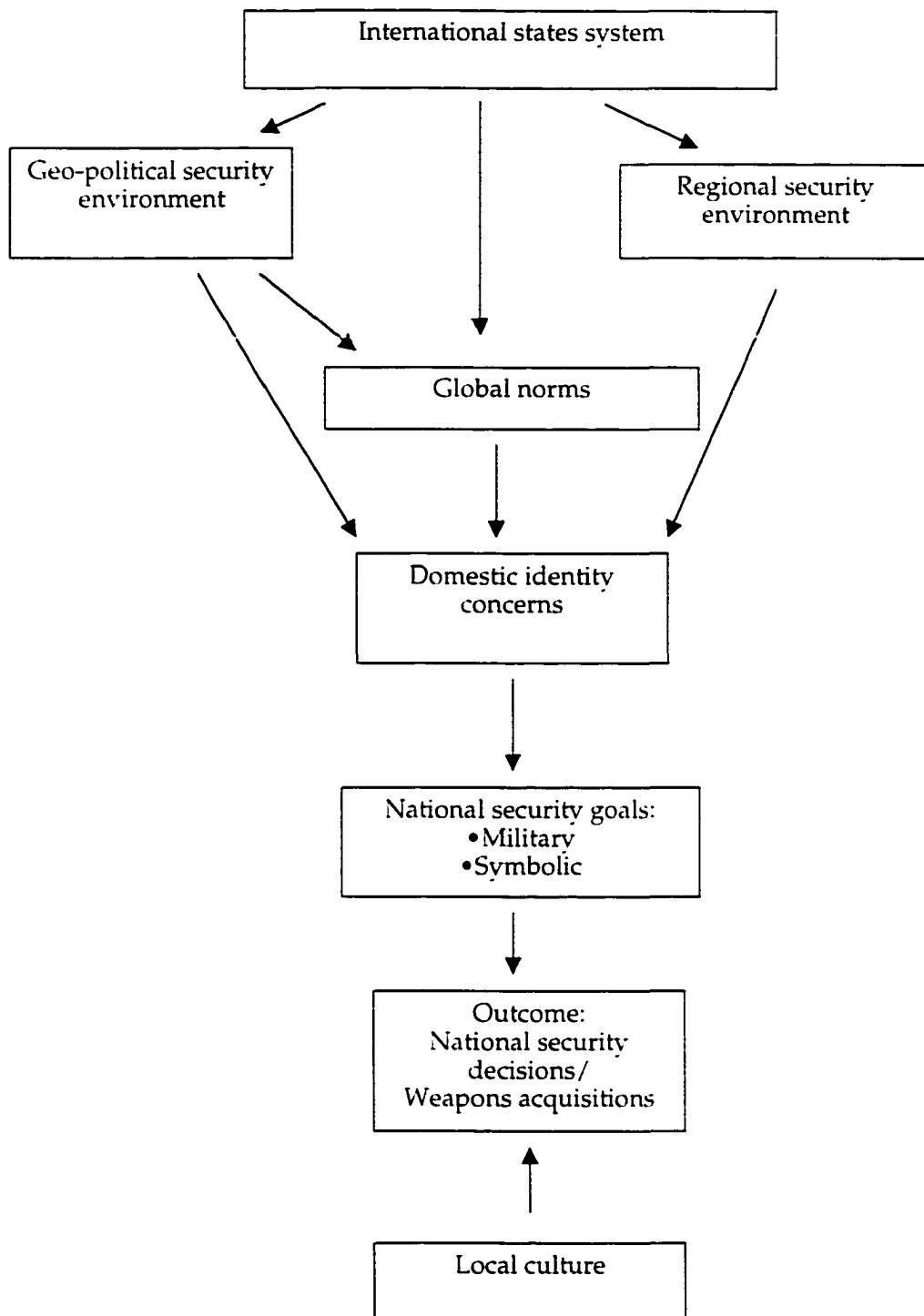


Figure 2.2
Institutionalism and National Security

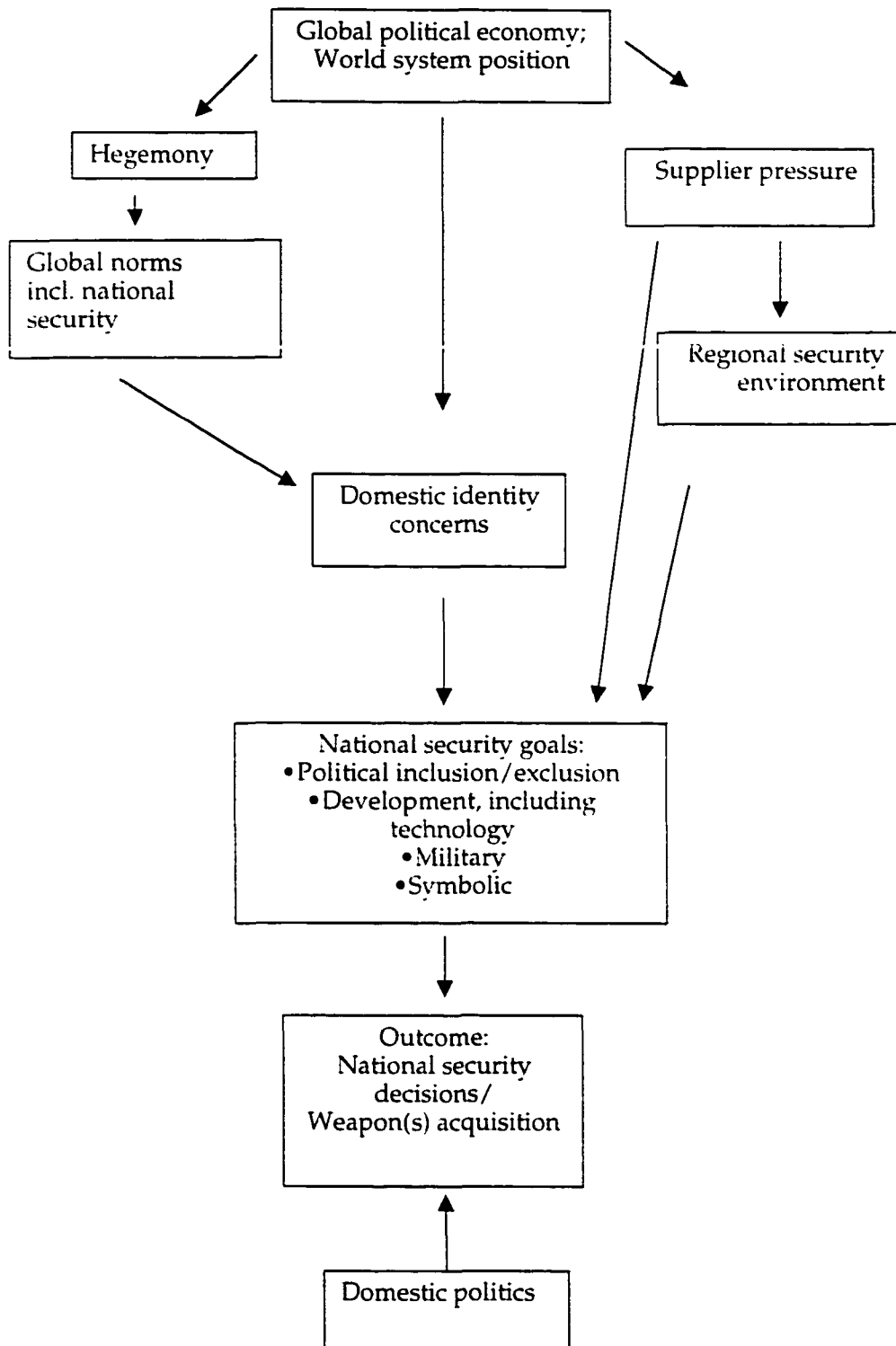


Figure 2.3
The World System and National Security

Key to countries:

AFG	Afghanistan	JAP	Japan	TAI	Taiwan
ALG	Algeria	JOR	Jordan	THA	Thailand
ANG	Angola	KON	Korea, North	TUR	Turkey
BAH	Bahrain	KOS	Korea, South	UAE	Un. Ar. Emir.
BEL	Belgium	KUW	Kuwait	VEN	Venezuela
BUL	Bulgaria	LYA	Libya	VN	Vietnam
CHI	China	MAD	Madagascar		
CUB	Cuba	MAL	Malaysia		
CZE	Czechoslovakia	MOR	Morocco		
DEN	Denmark	MOZ	Mozambique		
ECU	Ecuador	NET	Netherlands		
EGY	Egypt	NOR	Norway		
ETH	Ethiopia	PAK	Pakistan		
FRG	Germany, Federal Republic	POL	Poland		
GDR	German Democratic Republic	QAT	Qatar		
GRE	Greece	ROM	Romania		
HUN	Hungary	SA	South Africa		
IND	India	SAU	Saudi Arabia		
INS	Indonesia	SIN	Singapore		
IRA	Iran	SPA	Spain		
IRA	Iraq	SRI	Sri Lanka		
ISR	Israel	SYR	Syria		

Chronology follows on next page.
Sources: SIPRI yearbooks, 1971-1995 and the SIPRI arms trade database.

Figure 4.1
Chronological Listing of Fighter Aircraft Deliveries, Broken Down by Plane
Model and Recipient State

Table 3.1
States Receiving *or Negotiating for More Than One of the Three Fighters*
(or other fighter aircraft)

Greece	F-16, Mirage F-1 (plus Mirage 2000)
Egypt	F-16, Mirage F-1, MiG-23/27
Iraq	Mirage F-1, MiG-23/27
Libya	Mirage F-1, MiG-23/27
Jordan	F-16, Mirage F-1
Morocco	Mirage F-1, F-16
Iran	Mirage F-1, F-16, MiG 23/27
Spain	Mirage F-1, F-16 (plus rec. F-18)
India	MiG-23/27, <i>Mirage F-1</i> (plus rec. M-2000, Jaguar)
Pakistan	F-16, <i>Mirage F-1</i>

Table 3.2
 Recipients of the US F-16, First Order Date, and Number Ordered

US Air Force		about 2000
Belgium	1977	160
Denmark	1977	85
Netherlands	1975	303
Norway	1977	75
Iran	1977	300, no deliveries
Israel	1978	260
Spain	1980	60, no deliveries
Egypt	1980	266, partial deliveries
Jordan	1981	16, no delivery until 1996
South Korea	1981	160, partial deliveries
Pakistan	1981	111, partial deliveries
Austria	1981	24, no deliveries
Venezuela	1982	20
Turkey	1984	286, partial deliveries
Greece	1985	80, partial deliveries
Singapore	1985	45, partial deliveries
Thailand	1985	36
Indonesia	1986	12
Bahrain	1987	12
Malaysia	1988	12, no deliveries
Portugal	1990	20
Morocco	1991	20, no deliveries
Taiwan	1992	150

Table 3.3
 Recipients of the MiG-23/27, First Order Date, and Number Ordered
 (or delivered, where order size unknown)

USSR		at least 1400
East Germany	1973	84
Egypt	1973	20
Syria	1973	108
Iraq	1974	185, partial deliveries
Libya	1974	114
Cuba	1977	62
Ethiopia	1977	24
Afghanistan	1988	(53)
Algeria	1978	(65)
Bulgaria	1978	80
China	1978*	2
Czechoslovakia	1978	80
South Yemen	1978	25
USA	1978	18, from Egypt and later Germany
India	1979	300
Vietnam	1979	36
Hungary	1980	19
Romania	1980	46
Angola	1982	(71)
Israel	1984	1, no delivery
North Korea	1985	60
Sudan	1987***	12
Poland	1991**	2
UK	1991	1, from Germany
Belgium	1992	1, from Germany
Iran	1994	12, no deliveries
Belarus	?	?
CIS	?	?
Kazakstan	?	?
Ukraine	?	?

*Two from Egypt

**Two from FRG

***12 from Libya

Table 3.4
 Recipients of the French Mirage F-1, First Order Date, and Number Ordered

France		none produced for France
South Africa	1971	48
Spain	1972	91, partial delivery
Greece	1974	40
Kuwait	1974	33
Libya	1975	40, partial delivery
Morocco	1977	75, partial delivery
Iraq	1977	129, partial delivery
Jordan	1979	48, partial delivery
Qatar	1980	19, partial delivery
Iran	1991*	24

*Flown from Iraq during the Gulf War and never returned

Table 4.1
Results of Chi-square Test of States' Military Alliance by
Plane Model

ALLIANCE	Count Exp Val Tot Pct	PLANE MODEL			Row Total
		U.S. F-16	Soviet MiG-23/27	French Mirage F-1	
NATO States	32 19.3 17.3%	4 13.5 2.2%	5 8.2 2.7%	41 22.2%	
Warsaw Pact States	0 5.2 .0%	11 3.6 5.9%	0 2.2 .0%	11 5.9%	
Unaligned States	55 62.5 29.7%	46 43.9 24.9%	32 26.6 17.3%	133 71.9%	
Column Total	87 47.0%	61 33.0%	37 20.0%	185 100.0%	
Chi-Square		Value	DF	Significance	
Pearson		40.81366	4	.00000	
Likelihood Ratio		44.22392	4	.00000	

Table 4.2
Results of Chi-square Test of States' Historical Weapons
Acquisition Pattern by Plane Model

PATTERN	Count Exp Val Tot Pct	PLANE MODEL			Row Total
		U.S. F-16	Soviet MiG-23/27	French Mirage F-1	
1	50 30.4 27.3%	6 21.3 3.3%	8 12.2 4.4%	64 35.0%	
2	15 7.1 8.2%	0 5.0 .0%	0 2.9 .0%	15 8.2%	
3	12 9.0 6.6%	0 6.3 .0%	7 3.6 3.8%	19 10.4%	
4	10 20.0 5.5%	12 14.0 6.6%	20 8.0 10.9%	42 23.0%	
6	0 3.8 .0%	8 2.7 4.4%	0 1.5 .0%	8 4.4%	
7	0 16.6 .0%	35 11.7 19.1%	0 6.7 .0%	35 19.1%	
Column Total	87 47.5%	61 33.3%	35 19.1%	183 100.0%	
Chi-Square	Value	DF	Significance		
Pearson	161.14972	10	.00000		
Likelihood Ratio	179.38671	10	.00000		

Coding:

- 1: sole or predominant weapons source: West bloc
- 2: predominant source: mostly West bloc, some East bloc
- 3: multiple source: within the West bloc
- 4: multiple source: West and East blocs
- 5: multiple source: within the East bloc (none in this study)
- 6: predominant source: mostly East bloc, some West bloc
- 7: sole or predominant source East bloc

Table 4.3
Results of Chi-square Test of Plane Model by Delivery Year
Minus Base-line Year, Broken into 5-year Intervals

Plane Model	Count	Exp Val	Delivery Year Minus Base-line Year, Broken into 5-year Intervals					Row Total							
	Tot Pct		5	10	15	20	25								
F-16	10	13.4	7.3%	10	19.1	7.3%	26	20.0	19.0%	15	10.9%	0	0%	61	44.5%
MiG-23/27	14	10.1	10.2%	22	14.4	16.1%	9	15.1	6.6%	1	5.7%	0	0%	46	33.6%
Mirage F-1	6	6.6	4.4%	11	9.4	8.0%	10	9.9	7.3%	1	7%	2	1.5%	3	21.9%
Column Total	30	21.9%	21.9%	43	31.4%	31.4%	45	32.8%	32.8%	17	12.4%	12.4%	2	1.5%	100.0%
Chi-Square		Value		DF		Significance									
Pearson		35.57025		8		.00002									
Likelihood Ratio		36.29934		8		.00002									

Table 4.4
Results of Chi-square Test of Military Alliance Status by
Delivery Year Minus Baseline Year, Broken into
5-year Intervals

	Count	Exp Val	Tot Pct	DELIVERY YEAR MINUS BASE LINE YEAR, BROKEN INTO 5-YEAR INTERVALS					Row Total
				5	10	15	20	25	
ALLIANCE STATUS									
UNALIGNED	20	31	33	13	0			97	
	21.2	30.4	31.9	12.0	1.4			70.8%	
	14.6%	22.6%	24.1%	9.5%	.0%				
ALIGNED	10	12	12	4	2			40	
	8.8	12.6	13.1	5.0	.6			29.2%	
	7.3%	8.8%	8.8%	2.9%	1.5%				
Column Total	30	43	45	17	2			137	
	21.9%	31.4%	32.8%	12.4%	1.5%			100.0%	

Chi-Square	Value	DF	Significance
Pearson	5.53644	4	.23654
Likelihood Ratio	5.61881	4	.22948

Table 4.5
Results of Chi-square Test of War Experience 5 Years
Prior to Order Date, by Plane Model

WAR IN PAST FIVE YEARS	Count	PLANE MODEL			Row Total
	Exp Val	U.S. F-16	Soviet MiG-23/27	French Mirage F-1	
Tot Pct					
No	60	29	15		104
	48.9	34.3	20.8		56.2%
	32.4%	15.7%	8.1%		
Yes	27	32	22		81
	38.1	26.7	16.2		43.8%
	14.6%	17.3%	11.9%		
Column Total	87	61	37		185
	47.0%	33.0%	20.0%		100.0%

Chi-Square	Value	DF	Significance
Pearson	11.30437	2	.00351
Likelihood Ratio	11.44920	2	.00326

Table 4.6
Results of Chi-square Test of States' Military Expenditures,
as a Percent of Gross Domestic Product, at Time of Order Date,
by Plane Model

Count Exp Val Tot Pct	PLANE MODEL			Row Total
	U.S. F-16	Soviet MiG-23/27	French Mirage F-1	
MILITARY EXPENDITURE AT ORDER DATE (% of GDP)				
0-2.5	10 15.0 5.9%	12 10.1 7.1%	9 5.9 5.3%	31 18.3%
2.6-5.0	42 32.0 24.9%	17 21.5 10.1%	7 12.5 4.1%	66 39.1%
5.1-7.5	22 15.5 13.0%	2 10.4 1.2%	8 6.1 4.7%	32 18.9%
7.6-10.0	3 5.8 1.8%	7 3.9 4.1%	2 2.3 1.2%	12 7.1%
10.1-12.5	1 2.9 .6%	5 2.0 3.0%	0 1.1 .0%	6 3.6%
12.6-15.0	2 3.4 1.2%	4 2.3 2.4%	1 1.3 .6%	7 4.1%
15.1-17.5	0 1.9 .0%	4 1.3 2.4%	0 .8 .0%	4 2.4%
17.5 +	2 5.3 1.2%	4 3.6 2.4%	5 2.1 3.0%	11 6.5%
Column Total	82 48.5%	55 32.5%	32 18.9%	169 100.0%
Chi-Square	Value	DF	Significance	
Pearson	47.76767	14	.00001	
Likelihood Ratio	51.05294	14	.00000	

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