INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

U·M·I

Order Number 9325988

The development of Brazil's arms exporting industry and its roots in geopolitical and national security doctrines

Schwam-Baird, David Michael, Ph.D.

Tulane University, 1993

U·M·I
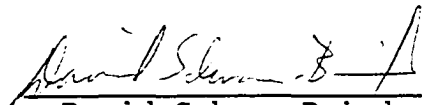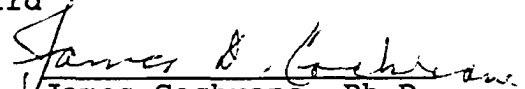
300 N. Zeeb Rd.
Ann Arbor, MI 48106
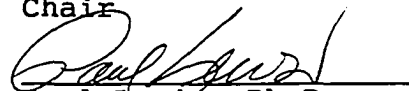
THE DEVELOPMENT OF BRAZIL'S ARMS

EXPORTING INDUSTRY AND ITS ROOTS IN

GEOPOLITICAL AND NATIONAL SECURITY DOCTRINES

A DISSERTATION

SUBMITTED ON THE TWENTY-NINTH DAY OF MARCH, 1993

TO THE DEPARTMENT OF POLITICAL SCIENCE

OF THE GRADUATE SCHOOL OF

TULANE UNIVERSITY

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

_____
David Schwam-Baird

APPROVED: _____
James Cochrane, Ph.D.
Chair

_____
Paul Lewis, Ph.D.

_____
Henry Mason, Ph.D.

_____
Raymond Taras, Ph.D.

ACKNOWLEDGEMENTS

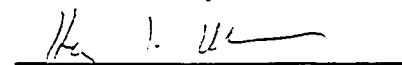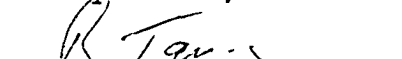First and foremost, I thank Dr. James Cochrane for his invaluable help in directing, advising, and editing this dissertation. It was Dr. Cochrane who had to wrestle with my baroque writing style and force me to get it under control. If this dissertation is at all readable, it is largely due to his efforts. I must also thank Dr. Paul Lewis also wrestled with my prose and helped to rein it in. In addition, it was Dr. Lewis who suggested treating the theoretical and ideological background to the development of Brazil's arms industry as an approach that would be interesting to me. He was right. I also thank Dr. Henry Mason and Dr. Ray Taras for their editorial sufggestions and encouragement.

I must also thank my wife, Shira, not only for her technical help with computer-related matters, but for putting up with moods, grumblings and tantrums which were unanticipated and unpleasant aspects of the writing process. And thanks to my son, Mikush, who also had to be patient when I claimed I had to work, rather than go bowling or play catch. I think he understood.

ii

CONTENTS

iii

iv

INTRODUCTION: BRAZIL AS ARMS PRODUCER

It was during World War I that the Brazilian military first keenly felt that its dependence upon foreign sources for its critical supplies was a burden it could not afford to carry any longer. Many supplies ordered before the outbreak of hostilities, including items such as machine guns and cannon, never arrived, having been diverted to serve the suppliers' own war needs. Even after formally joining the Allies in World War I, in the hopes of receiving aid for its efforts, Brazil was unable to outfit its new conscripts. Beginning in the 1920s, and accelerating in the 1930s, the Brazilian military and government pursued a dynamic policy for developing a domestic arms industry.[1]

By the mid-1980s Brazil had become the leading Third World arms exporter. It has been estimated that there are now some 350 firms in Brazil, state-owned, private, mixed public-private, and foreign, that are involved in arms production. Some sources estimate that as many as 200,000 people are directly employed in the defense industry, and it is assumed that there is appreciable "indirect" employment due to this sector. The value of the products from this sector are in the US$12 to US$15 billion range, representing about 5% of Brazil's GNP.[2]

The emergence of Brazil's impressive arms exporting sector has provided the country with advantages beyond the achievement of freeing the military from its suffocating dependence on the major powers for arms supplies. The fact that the bulk of its arms is sold in the lucrative international arms market has helped Brazil in its efforts to achieve balance of trade surpluses. As Brazil moved to be a major arms supplier to oil producing states such as Libya and Iraq, it was able to "barter" weapons for petroleum supplies, essential for maintaining its industrial growth. Arms exports have proven to be valuable instruments in establishing strong relationships with potential allies. Brazilian arms, many of which are ideal for the armed forces in developing countries, have been used to open up Sub-Saharan Africa to Brazil's influence.

PART I - IDEOLOGICAL ROOTS OF BRAZIL'S INDUSTRIALIZATION

It is not enough to explain the outstanding development of Brazil's arms exporting industries, or indeed its entire industrialization program, by merely detailing the Brazilian generals' desire to reduce their dependence on foreign arms sources. When the military took its first steps to try and rectify this situation in the 1920s, Brazil's industrial base and technological level were alarmingly underdeveloped, too weak to even remotely think of building even the most rudimentary munitions. For Brazil to achieve any degree of

weapons independence, or more importantly, to create the industrial base to support it, an entire program for the modernization of the nation's economy would have to be undertaken.

The economic, political and military doctrines that began to take root in Brazil in the 1920s were of course not solely due to this singular desire of the military to achieve some measure of weapons independence. The then influential currents in European military and strategic thought which caught the imagination of the military elite in Brazil (and of the other powers in the Southern Cone, Chile and Argentina) would become the ideological bedrock for the development, and later the actual institutionalization, of the doctrines which would lead to Brazil's industrialization, and finally to the development of Brazil's dynamic arms industry.

The development of geopolitical thought in Brazil in the decades before World War II was the first important stage in this ideological-cum-political process. Influenced mainly by European thinkers such as Friedrich Ratzel of Germany, Rudolf Kjellén of Sweden, and Halford J. Mackinder of Britain, military thinkers in Brazil and other Southern Cone countries applied geopolitical concepts to the South American situation and kept geopolitical thought alive after it had been almost universally discredited after the War because of the concept's appropriation by the Nazis. The central ideas of geopolitics include the notion of the nation-state as an organic entity which must assert its need for "living space", for resources,

and for national Purpose. The nation-state found itself in a quasi-Darwinian competition with other organic states, and had to develop its people, resources and economy in order to insure its survival and to protect, or even expand, its frontiers.[3]

After World War II, the Brazilian school of Geopolitics took pains to distance itself from the aspects of the ideology used by the Nazis. The main thrust of Brazilian Geopolitical thought revolved around the idea of grandeza, which was the unchallenged assumption that Brazil's destiny -- due to its size and vast resources, strategic location, and uniqueness -- was to become the first Superpower of the Southern Hemisphere. The watchwords of Brazil's progress would be segurança e desenvolvimento (security and development). Brazilian geopoliticians pragmatically asserted that through a close alliance with the United States their country could receive the assistance, technology and guidance necessary to realize grandeza.[4]

Geopolitical concepts formed the core of the National Security Doctrine, which evolved throughout the 1950s, and in effect became institutionalized during the years of military rule following the 1964 coup. The National Security Doctrine incorporated the geopolitical concept of the organic nation-state, but emphasized the aspects of the nation-state's power. The determinants of a state's power were its territory, population, economic capability, military strategy, national strategy and national will. For the state to develop its

power it had to constantly pursue an integrated program enhancing its political, military, economic and psycho-social elements. National power was seen as unitary and indivisible; therefore elements within the society which sought to challenge the existing order were viewed as diseases in the organism of the nation-state which would sap its power unless removed.[5]

PART II - FROM IDEOLOGY TO INDUSTRIALIZATION TO ARMS PRODUCTION

It is not enough to formulate ideologies and doctrines in order to effect the dramatic changes which Brazil has undergone in the last decades. Along with the evolution of Brazilian geopolitics and the National Security Doctrine, institutions evolved which insured that these new modes of thought would be disseminated among the members of the military, political and economic elites of the country. Besides becoming the core of the curriculum in advanced training for officers in the armed forces, institutions such as the Escola Superior de Guerra (Superior War College, or ESG) served civilians as well as officers. Some of the ESG's civilian participants would later fulfill highly influential roles in government and economic circles.[6]

After the coup in 1964 and the subsequent establishment of the military government (guided in part by prominent geopolitical theorists such as General Golbery do Couto e Silva), the political and economic programs based upon these

concepts and doctrines were put into effect, accelerating industrialization, expanding the state's infrastructure, and enhancing the role of the armed forces in the political, economic and social spheres.

PART III - HYPOTHESES CONCERNING THE ROLE OF IDEOLOGIES

The central theme of this work concerns the role of ideology in the pursuit of arms independence in Brazil, and in the phenomenal success of the Brazilian arms industry. Though some important groundwork was laid before 1964, it was only after the military assumed power on March 31, 1964, that the arms industry "took off".

Two hypotheses relating the role of ideology to the policies of the military government can be derived from the literature. The first hypothesis gives great explanatory power to the role of the National Security Doctrine. Simply stated, this hypothesis sees the Brazilian version of the National Security Doctrine as developed in Brazil as providing the framework for the decisions of the military governments in areas of economic development and industrialization. The Brazilian arms industry was the centerpiece for these governments' industrialization programs. According to this hypothesis, the doctrine's dispassionate scientific approach, with its emphasis on economics, technology and development, thoroughly permeated government and military decision-making in this period. Furthermore, the approaches derived from the doctrine are seen as responsible for the economically

efficient operation of defense enterprises and their relative autonomy from the kind of political control which often undermined other Third World arms industries. Seen from this perspective, the Brazilian arms industry not only developed along the lines advocated by the National Security Doctrine, but the industry's successes also played a part in achieving the goals inherent in the doctrine. The industry brought in technology, skills and funds essential for Brazil's over-all industrial development, and gave Brazil the means to become more independent and influential on the international scene.

The second hypothesis gives greater explanatory value to the corporate ideology of the military. The military institution had begun its pursuit of arms independence long before the National Security Doctrine penetrated military circles. The military is one of many institutions in Brazil vying for scarce resources, political influence and prestige. In its quest for arms independence, it should be more properly seen as pursuing the means by which it can better fulfill its own role as the institution entrusted with the preservation of Brazil's security. A successful domestic arms industry would also enhance the military's prestige and political standing. Once the military found itself in power, it could hardly be surprising that it would elevate the arms industry to a government priority.

In order to contrast these two hypotheses, it will be necessary to examine the development of these two ideologies. Chapter I will trace the development of the National Security

Doctrine. Beginning with the emergence of geopolitical thought in Europe and the United States in the 19th century, the influence of geopolitics in the Brazilian military will be discussed. From its roots in geopolitics, the intellectual development of the National Security Doctrine within the Brazilian military will be examined, as well as the means by which its influence was spread.

The evolution of the corporate ideology of the Brazilian military will be discussed in Chapter II. The task of determining the nature and elements of the corporate ideology of an institution, elite or class is more elusive than that of examining an articulated or "official" ideology. The corporate ideology of a given group refers to a deeply ingrained set of attitudes which define the interests, self-image and roles of that group in society. In the case of the Brazilian military, there are general attitudes which are common to all military institutions. In addition, the Brazilian military has undergone experiences which are unique. It has its own experiences in warfare; it has had to struggle to assert its role as the preeminent institution charged with safeguarding Brazilian security against the persistent opposition of politicians and state militias; it has sought to modernize both its personnel and its arsenal within the confines of an underdeveloped nation. These and other experiences have helped forge the particular world-view of the Brazilian armed forces.

Chapter III provides a narrative of the critical events during the 1964-1985 period of military government. This narrative stresses the overall economic and industrial policies of the military regime; the specific policies relating to the establishment of the arms industry, as well as of Brazil's computer industry (considered as a sector vital to Brazil's national security); struggles within the military between those officers most closely identified with the National Security Doctrine (the so-called Sorbonne Group) and those officers associated with the "hard-line" faction (who will be seen as consistent representatives of the military's corporate ideology). It is necessary to provide such a narrative in order to allow an examination of the extent to which one or the other ideological trends influenced the policy decisions of the regime, especially with regard to the arms industry.

Chapter IV will provide an analysis of the key events discussed in the preceding chapter. Throughout this period the various factions within the military struggled for influence. The effect was that the Sorbonne Group held the presidency during the first administration (1964-1967); lost its hold to the hard-line during the next two administrations (1967-1974), then regained control for the last two presidential terms (1974-1985). Each major faction had its opportunity to put its own stamp on policy. This analysis will also discuss the effects of the group referred to by Emanuel Adler as the "subversive elite"[7]: the emerging class

of civilian <u>tecnicos</u>, with their own corporate ideology, who managed to gain considerable influence in economic and industrialization policy-making under the military regime.

In the last chapter, the conclusions to be drawn from this analysis will be discussed. It will be shown that the two initial hypotheses have some relevant explanatory value, but neither suffices to explain the success of the Brazilian arms industry alone. It will be asserted that the actual decision to establish the arms industry was based on the corporate interests of the military. This decision was not, at first, an integral part of a long-term, multi-faceted development policy for Brazil. However, the industry was able to achieve its phenomenal success because of the way in which it was promoted, nurtured and managed, which was more in line with the approach inherent in the National Security Doctrine. This is not satisfactorily explained solely by the influence of the Sorbonne Group within the military. The success of the arms industry should be viewed as stemming from a tacit alliance between the Sorbonne Group and the civilian <u>tecnicos</u> they brought into key planning ministries and enterprises. But for the policies of the hard-line officers, an extensive arms industry may not have been established. Without the influence of the Sorbonne Group, Brazil would not have developed from a country exporting no arms in 1964 to being the largest Third World exporter of arms by the mid-1980s.

The fifth chapter will also discuss the extent to which some of the advantages claimed for arms industries in

developing countries are valid, based on the Brazilian
experience. This includes examining the issues as whether the
arms industry actually achieved "spin-off", that is, transfer
of the technological advances acquired through the arms
industry to other industrial sectors; whether arms production
enhanced Brazil's political independence and security; and to
what extent the gains made by the Brazilian arms industry were
long-lasting or ephemeral.

ENDNOTES - INTRODUCTION: BRAZIL AS ARMS PRODUCER

1. Frank D. McCann, "The Brazilian Army and the Pursuit of Arms Independence, 1899-1979," in Benjamin Franklin Cooling, ed., War, Business and World Military-Industrial Complexes (Port Washington, N.Y.: Kennikat Press Corp., 1981) pp. 173-186.

2. Clovis Brigagão, "The Brazilian Arms Industry," Journal of International Affairs. Vol. 40/Nr. 1 (Summer 1986), pp. 109-111; William Perry and Juan Carlos Weiss, "Brazil," in James Everett Katz, ed., The Implications of Third World Military Industrialization: Sowing the Serpents' Teeth (Lexington, Mass.: Lexington Books, 1984) pp. 103-104.

3. Geoffrey Parker, Western Geopolitical Thought in the Twentieth Century (New York: St. Martin's Press, 1985) pp. 8-10.

4. Jack Child, Geopolitics and Conflict in South America: Quarrels Among Neighbors (New York: Praeger Publishers, 1985) pp. 34-35.

5. Antonio Saturnino Braga "Introducão ao Estudo da Segurança Nacional" Revista Brasileira de Estudos Politicos. Nr. 21 (July 1966) pp. 23-25; Mike Burgess and Daniel Wolf, "The Concept of Power in the Brazilian Higher War College (ESG)" LARU Working Paper Nr. 27 (1979) p. 3.

6. Child, Geopolitics and Conflict, pp. 69-71; Antonio Rengifo, "New Institutional Ideology in Latin American Military Coups: Brazil and Peru," Diss. Texas Christian University, 1979, pp. 45-46.

7. Emanuel Adler, The Power of Ideology: The Quest for Technological Autonomy in Argentina and Brazil (Berkeley: University of California Press, 1987) pp. 83-100.

CHAPTER I: THE DEVELOPMENT OF GEOPOLITICAL THOUGHT AND THE NATIONAL SECURITY DOCTRINE IN BRAZIL

By the time the military took power in Brazil in 1964, the National Security Doctrine was fully elaborated. Its influence touched not only all levels of the officer corps, but also certain civilian elites who would play a role in governmental decision-making during the following two decades. It has been asserted that the implementation of the themes of this doctrine were key elements in the establishment and success of the Brazilian defense industries. It is therefore necessary to discuss the evolution of this ideology, and to examine its central assumptions. The roots of this doctrine reach back to the philosophies of the European and North American geopolitical thinkers of the 19th century, whose ideas would become very influential in Brazilian military circles prior to World War II.

PART I - THE ROOTS OF GEOPOLITICAL THOUGHT

It is not uncommon for writers studying the development of influential political theories to delve deep into our intellectual past to try and trace the pedigree of those theories to the authorities of bygone eras, whose names imbue

the subject with respectability. Geopolitics as a specific school of thought holds this attraction no less than other theories, for writers of a certain bent.[1] Nevertheless, to discuss Geopolitics as an identifiable set of theories and ideas, and especially in relation to the body of geopolitical thought which has had an undeniable influence in the Southern Cone of South America, one can gainfully focus attention on its emergence in the Europe of the 19th Century.

Many intellectual currents of the 19th Century were influenced by the development of new scientific discoveries and theories. Advances in the physical and biological sciences made a great impact on the social sciences. The influence of the theories of Charles Darwin, for example, though clearly concerned with biological questions, nevertheless provided stimulation for social philosophers, who emphasized what they saw as a strongly deterministic thrust in nature, an inevitable march toward higher and higher levels of development, and such biological Darwinian observations as the "survival of the fittest," in the realms of history and international politics. In the search for scientific explanations of economics and society, the ideas of the Social-Darwinists rivaled those of Marx and Engels as the most well-known exemplars of these trends.[2]

Another common intellectual assumption, especially important to thinkers concerned with the connections between geography and politics, was the "closure" of the globe. With the European powers having extended their empires to every

corner of the world, and the knowledge that for all intents and purposes, there were no more lands left to discover and relatively few left unexplored, the ramifications for international politics were likely to be enormous. This realization was what marked the beginning of what one of the most important of the new geopolitical philosophers, Halford J. Mackinder, called the "post-Columbian Age."

> From the present time forth, in the post-Columbian age, we shall again have to deal with a closed political system, and none the less that it will be one of world-wide scope. Every explosion of social forces, instead of being dissipated in a surrounding circuit of unknown space and barbaric chaos, will be sharply re-echoed from the far side of the globe, and weak elements in the political and economic organism of the world will be shattered in consequence. There is a vast difference of effect in the fall of a shell into an earthwork and its fall amid the closed spaces and rigid structures of a great building or ship. Probably some half-consciousness of this fact is at least diverting much of the attention of statesmen in all parts of the world from territorial expansion to the struggle for relative efficiency.[3]

This perception of the "closed world" engendered an intellectual movement toward more inclusive, holistic theories concerning social and political issues: Geopolitics. The four thinkers universally cited as the formative minds behind the emergence of 20th Century geopolitical thought were Friedrich Ratzel (1844-1904) of Germany; Rudolf Kjellén (1864-1922) of Sweden; Alfred Mahan (1840-1914) of the United States; and Halford Mackinder (1861-1947) of Great Britain.

Friedrich Ratzel, who had studied extensively in biology, chemistry and anthropology as well as geography, applied many of the concepts cited above, borrowed from science, to the study of the behavior and growth of states.

His writings describe such behaviors in an almost biological language. He coined the term "Anthropogeography," suggesting an approach which combined the fields of anthropology, geography and political studies. This term would be incorporated into the lexicon of later Brazilian geopolitical writers. Ratzel also claimed to have identified laws which governed the life and growth of states.

According to Ratzel, in primitive pre-state societies social organization was based on the family, the clan and the tribe. The connection of the people to their society was based on identification with these units, and only marginally, if at all, to the land upon which the society happened to be located. The dislocation of such a group, perhaps through warfare or drought, did not directly affect the identity of the group in question. The area inhabited by such a group tended to be isolated from other such groups, with little or no value attributed to territory situated between groups.[4]

As societies began to enter into a more permanent relationship with the land upon which they dwelt, primarily through the development of agriculture, social identification deepened, and territory itself assumed value. Social organization became more complex as well, as the need to tame nature to protect settlement areas or to extract more produce from the soil (e.g., irrigation projects, dikes) demanded greater degrees of organization and cooperative effort. Such complex organizations became identifiable as states.

Ratzel asserted that states can be seen to grow in the wake of the expansion of the influences of their peoples' cultures. In some sense, this is not necessarily a conscious process:

> Certain developments have been alluded to which progress more rapidly than the state and prepare the way for it.... This lies in the ideas and wares which are passed on from one people to another. It is seldom that a state has been able to set the limits to their wanderings; as a rule, indeed, they have drawn the states after them. Animated by the same impulse and following the same path, are frequently found together ideas and wares, missionaries and merchants, drawing peoples closer and assimilating them, and thus preparing the ground for political approach and union.[5]

Political expansion of the state occurs only after the expansion engendered by these other activities and interests. States begin to grow through the annexation or absorption of smaller, weaker peoples.

At one and the same time, the struggle to expand, subdue and absorb the peoples and territories of neighboring states, and the struggle to produce more from the land upon which the state rests, deepen not merely the political and economic value of the land, but also the emotional, cultural relationship between the people and the land. Clearly using biological concepts Ratzel claims:

> It is not a mere metaphor to speak of a people taking root. A people is an organic body which in the course of its history is fixed more and more firmly in the soil on which it lives.... [A] people struggles with its territory and makes it even more and more its own by shedding its sweat and blood on its behalf, until the two cannot even be thought of apart. We cannot think of the French apart from France, or of the Germans apart from Germany.[6]

A state and its people's culture now necessarily assuming a territorial dimension, the state's borders now become crucial. In most cases, states which have progressed beyond the primitive tribe or clan-centered stage are not alone. Several states will be vying for land, especially that land with special economic or strategic value. This land will usually be inhabited (an indication of its value), whether by primitive states or more developed states. These borders are most vulnerable to influence, if not outright attack, by other states, and therefore begin to receive special attention (e.g., fortification, colonization, development). Frontier regions become "filled with more vigorous life than the rest of the periphery."[7]

For Ratzel, the development of culture and civilization does not necessarily result in an adequately structured state organization, but such an organization cannot exist without it. The achievements of civilization at any stage are a result of both material and intellectual factors. The development of agriculture is one of the most basic building blocks of civilization, especially when the fruits of such development can be extracted only through exertions which demand organization and cooperation. But once the system rooted in agriculture begins to flourish, the intellectual component begins to develop on its own. At this point Ratzel points to more global clashes between two types of culture (in a way which is taken up more fully by Mackinder). There are some elements in settled, agriculturally based societies which

promote a certain type of "natural weakness, which may be explained not only through want of familiarity with weapons, but through the desire of possession and a settled life enfeebling to courage and enterprise."[8] In contrast, active and mobile societies, based on nomadism and hunting, tend to be much more politically aggressive.

At the early stages of state formation there is a constant clash between settled societies and "hunter and shepherd races" from the political margins of the settled world. Ratzel assumed that the earliest proto-states lacked what he called the "spatial conception." Before states expanded to the point where their populations were coextensive with their (at first) poorly defined boundaries, and before the frontiers of states began to impinge upon one another as unclaimed or disputed territories came to be seen as politically advantageous, territory as such did not define the political entity. Because the genesis of states lies in structures such as family, clan and tribes, these proto-states tended to avoid either spatial or organizational growth beyond the tribal limits. Ratzel claimed that all historical great states were brought to greatness through, first, the in-migration and, then, the seizure of power, by these peoples from the geographical margins, as they move into culturally more homogeneous areas.

> There is a difference in the historical progress of mankind. Some remain stationary, while others push on, and both conditions are favored by the nature of the country, wherefore from seas and steppes, the regions of movement, state formation advances into the forest and

arable lands, the regions of fixed settlement. In a stationary condition weakness and decay creep in, whereas aggression demands organisation....[9]

These larger states, which shall carry forth this "spatial conception" invariably expand from natural geographical boundaries, such as coasts or great deserts, or from areas where different cultures border one another. The expanding states will, as expected, come to annex the smaller states, but as this happens, other large states will begin to follow suit. The expansionist tendency will accelerate, and the competition between expanding states will increase. As inter-state rivalry increases, those states which will emerge victorious will be those that can take advantage of the struggle between rivals, and those which can adapt themselves to engage in battle, commerce, or diplomacy under a variety of conditions.

The main features of Ratzel's work which have influence on Geopolitical thought include the description of societies and states in organic, quasi-biological terms; and the positing of a necessary relationship between the growth of states and civilizations with the territory upon which they grow and into which they expand. Though Ratzel clearly believes in the importance of the influence of individuals, especially political leaders, in the development of states, there is nevertheless an undercurrent of geographical and historical determinism. These latter factors set the laws by which, and the parameters within which political growth occurs. His description of the conflict between societies

located in arable regions and societies emerging from the steppes anticipates the basis upon which Mackinder developed his idea of the "Geographical Pivot of History."

Rudolf Kjellén, a Swedish political scientist and politician (he was a member of the Swedish parliament), was the writer who invented the term "geopolitics," as well as the term "Autarchy." The extent to which he subscribed to a biological interpretation of the behavior of states is evident in the title of his most influential book, The State as a Life-Form, in which the influence of Ratzel and of social Darwinism are palpable.

Kjellén first of all sought to redress what he felt were serious shortcomings in the study of the state and international politics. He developed his theory of the state as an organism against the backdrop of the inadequacies of political science of his time, which he felt centered solely on one aspect of the state: the study of its formal institutions and its laws. This all too narrow focus he traced to the dominant classical liberal conception of the state as merely a "legal skeleton" [Rechtsskelett], which allows individuals to pursue their own progress and goals. Yet the action and behavior of states in the international sphere, especially in times of crisis and war, do not fit with such a simplistic view of states. Kjellén points out that one observes at such times, indeed at all times, that states themselves seem to act as if they were themselves individuals, possessed of wills, needs, interests and goals.[10]

Kjellén identified five aspects of the state which he likened to the state's organs. These aspects were: Geopolitics, in which the life and power of a state is influenced by its relationship to the land upon which it is located, and its location as it affects the state's power over, or susceptibility to the power of other states; Demopolitics, which covers the relationship between the people of a given nation, with that people's unique qualities and history, and their state; Eco-politics [Wirtschaftspolitik], which concerns not simply the economic aspects of state institutions, but also includes the economic facets of the geographical location of the state; Sociopolitics, which concerns the interplay of social, anthropological and cultural forces and organization, and the state; and Kratopolitics[11] [Herrschaftspolitik], which concerns the state's functioning as a unified "personality", based on the national unity of the people and the regime-form of the state. While the importance of the land upon which a nation and its state develops would clearly be seen to be central to the Geopolitical aspect, geographical factors also play important roles in the explication of the form of the other "organs" as well.[12]

Above all, the state is necessarily bound to its land.

> The state cannot leave its place. It has its firm abode and its claim to its homeland .... Indeed, it is on its once-and-for-all known and decided ground. It is fastened to its soil, and dies should it be torn from it. It is "in bondage" to its territory.

...The state cannot float in the air, it is like the forest, bound to its ground, from which it drinks its nourishment, and under its surface its individual trees find their roots intertwining.[13]

The borders of a state ideally both protect the life of the state and allow the state to deal with neighboring states in such a way as to enhance its own vitality. Kjellén's Law of Autarchy asserts that a state must strive for maximum self-sufficiency through establishing itself on fruitful land and exploiting it fully. The state must take advantage of land and water routes which facilitate commerce and the expansion of its political and economic influence. The state must establish itself within natural and defensible borders. A state is bound to its land, but in striving for autarchy it will tend to expand outward from its original territory, either absorbing the lands of other states or projecting its influence upon its neighbors to achieve its goals. Therefore the state's borders become the focus of pressures exerted by the states located on either side of the border.

> The border question is moreover partly a question of pure political power relations on both sides .... Therefore the border will not be fixed solely by its own natural qualities, but above all by the evolving power of all states, and behind this through the equilibrium of the state system .... Strong states will not simply remain within their natural borders, but will rather to seek to move on these 'bridgeheads'.... If a member of the state system loses its power, this means that there will be a weaker pressure at this point, which means that the pressure from the other side will increase. Then the border will show its ability to hold against this increased burden - and then the poor border will give way ... like the door of a derelict house.[14]

Since Kjellén claimed that a state is a living entity, he also asserted that, like other organisms, a state is born,

grows, weakens and dies. States are born as a people, developing on its own land, is able to assert itself and wrest control from the erstwhile dominant power over that land. The state grows (if it is not resisted by other, stronger states) as its relationship to the land grows stronger, and the state learns not only to exploit its own land, but also to assert itself against its neighbors. The strength of the state and its ability to develop depends not only upon the richness of its soil and the political advantages of its location, but depends also upon the health of its cultural, social, economical and organizational organs. As an example, Kjellén cites the inability of the Polish people to maintain an independent state. Of course, the Poles have the misfortune of being situated between three powerful and aggressive states (Prussia/Germany, Russia, and Austria-Hungary). However, Kjellén attributes much of their plight to the Polish nation's unhealthy propensity to fractionalize, preventing the growth of a healthy nationalism, which is necessary for the development of a viable state. The absolute size, strength and health of a nation is not as important to its ability to develop as the relative size, strength, and health vis-a-vis a nation's neighbors.[15]

Like other organisms, a state can wither and die as well. A people and its state can exhaust themselves, or, being set in their ways through historical development, traditions, etc., they can fail to adapt as newer, more aggressive states appear on the scene. The weakened state can

be absorbed by a stronger neighbor, or be chipped away by several.

Like other organisms, a weakened state may be able to find the means to revitalize itself and to prolong its life. This revitalization can be consciously promoted, but it depends upon the continued inter-relationship of the individual citizens which make up the state and the life of the state itself.

> The life of the state lies finally in the hands of individuals.... We don't know whether a given state or a given nation has been given eternal life: but we can well see that at decisive moments it is up to the individual whether his state will live long on earth.[16]

From this point Kjellén comes full circle, returning to his original criticism of the classical liberal understanding of the state. Insofar as individuals can enjoy their freedom, they depend upon a healthy state. If the state is to be healthy and strong, individuals must necessarily equate their freedom with that of the state and recognize that their own freedom depends upon their willingness to accept limits on it for the sake of the state. If individuals are imbued with the proper nationalist attitudes, they will understand that their interests are identical with those of the state as a whole. According to Kjellén, too great an emphasis on individualism can fragment a state. When the unity and strength of the state is sacrificed for the sake of individual freedoms, the state may become too weak to resist the ubiquitous expansionist pressures of other states.

Alfred T. Mahan was an admiral in the U.S. Navy as well as an influential naval historian. In terms of his writings which were concerned with geopolitical issues, he wrote from the point of view of a naval officer, confident in the need for and capabilities of modern navies. The aspect of his thought which constituted Mahan's contribution to geopolitical thought was that which tied a nation's potential naval power to the nation's geographical features, political structures and national character. While Mahan was most concerned with an analysis of those features which would describe a nation's potential to develop into a sea-power, aspects of this sea-oriented approach highlighted important facets of the concept of national power that would be influential for geopolitical thinkers.

Mahan identified six basic factors as critical to a nation's potential and ability to develop its sea-power.[17] The first of these concerned the general geography of the nation in question: its location on sea or river lanes; the extent of its coastline; its proximity to friendly, enemy and potential enemy states.

The second factor concerned the "physical conformation" of the state's coastline. As a naval officer Mahan might be expected to place great value on outlets to the sea, harbors and estuaries, which are important items in this category. But beyond this, these same geographical assets could be potential bridgeheads by which hostile nations might

penetrate. (This observation will be shown to be a major preoccupation of the Brazilian geopoliticians.)

> The seaboard of a country is one of its frontiers: and the easier the access offered by the frontier to the region beyond, in this case the sea, the greater will be the tendency of a people toward intercourse with the rest of the world by it.... Numerous and deep harbors are a source of strength and wealth, and doubly so if they are the outlets of navigable streams, which facilitate the concentration in them of a country's internal trade; but by their very accessibility the become a source of weakness in war, if not properly defended.[18]

Mahan's third factor expands upon the second, relating the length of the coastline to the size and characteristics of the population. An extensive coastline can be a great advantage to a state, but only if its population has the wherewithal to exploit it. Using the example of the Confederacy in the American Civil War, Mahan points out that whereas one would consider its coastline to be highly advantageous, the Confederacy lacked the resources to make full use of it. The Union forces were able to blockade the South with a minimum of effort, due to its relative advantage in population and industrial and naval capability, which in turn gave the Union undisputed naval superiority. The Union's blockade was "... a very great feat; but it would have been an impossible feat had the southerners been more numerous, and a nation of seamen."[19]

The fourth factor directly concerns the size of a nation's population. A large population, even if it does not necessarily mean that the nation will be a "nation of seamen," at least guarantees that the nation has the potential to

harness its population in time of crisis to increase agricultural and industrial production, commerce, raise an army and navy, and produce munitions. Mahan's fifth factor concerns the character of the people of a nation. Critical to a nation's ability to develop into a power to be reckoned with is its people's aptitude, above all, for commercial pursuits, that is, the extent to which its people are imbued with the creative entrepreneurial spirit. Mahan cited the inherent weakness of the politically mighty Spanish and Portuguese Empires. At one time controlling almost all of the New World, and parts of Africa and Asia as well, the Iberian peoples sought riches without concern for its investment or wise exploitation. The greatest emphasis was given to the immediate benefits to be derived from the importation of precious metals from the colonies, with relatively no thought given to the need to enhance the local economy by means of that wealth. Spain and Portugal were unprepared to meet the economic and commercial advances made by the English, French and Dutch, and eventually relied almost entirely on the latter nation to conduct their commerce. According to Mahan, the Iberian people lacked the necessary character traits to translate their immense imperial wealth into long term power.[20] As a further example Mahan cites the French, who, though wiser than their Iberian rivals, were yet much too unwilling to take the necessary economic risks to deepen their own economic development. By contrast, though they never achieved a colonial empire comparable to that of the Iberians

or the French, and despite the much smaller size of the Dutch nation, the commercial accomplishments and consequent naval power of the Dutch people made them serious competitors.[21]

Mahan's sixth factor concerns the character of the government of a state. This is not the strict equivalent of the character of a nation's people. For example, Mahan admires the entrepreneurial daring of the Dutch, but he faults the disunity of the Dutch government, whose seven provinces were unable to unite sufficiently to avoid repeated crises arising from the designs of more powerful neighbors. That government is most effective which not only succeeds in uniting the nation politically, but which also sees the extent to which all aspects of the nation are inter-related, and takes pains to implement policies which will simultaneously stimulate all sectors: domestic agriculture and industry; internal and international commerce; the preparedness of the military. There is no single area to which a government can decide to devote all of its energies without allowing other sectors to become weaker. Allowing some sectors to decline inevitably creates a weakness for the state as a whole.

There is much less of the element of determinism in Mahan's thought than in that of the other three formulators of twentieth century geopolitics. Mahan's analyses are essentially historical, and the lessons he draws from these analyses are translated into strategic policies, military and political. Obviously for Mahan, peoples and their governments have a great deal of control over their own destinies.

Halford Mackinder originally pursued biological studies before becoming passionately involved in the study and teaching of geography. He strove to bring to the study of geography the academic respect and prestige accorded to other disciplines such as history and philosophy, eventually succeeding at creating chairs of geography at Oxford, the University of Reading, and the London School of Economics. Despite his relatively conservative political views he was an associate of such leading leftist British intellectuals as H.G. Wells, Bertrand Russell, and Sidney and Beatrice Webb. Mackinder was also a politician and diplomat, having been a member of the parliament for over a decade, first for the Liberal Party, then switching to the Conservatives, and having served as High Commissioner in southern Russia at the time of the Bolshevik Revolution.

In spite of the influence of Ratzel's ideas on the development of Mackinder's thought, Mackinder never sought to reduce the behavior of states to quasi-biological laws as had Ratzel and Kjellén. Though he would employ biological analogies in his writings on occasion, his geopolitical views were essentially derived from historical and geographical observations. The deterministic element of his thought was also tempered by his belief that once the trends of history, shaped by inescapable geographical features, were understood this understanding could be used to devise strategies to take political advantage of these geographically-based trends. As a British patriot, much of his writing assumes an exhortatory

tone as he urges his compatriots, and the West in general, to counter the growing strength of Germany and Russia.

Mackinder's most influential work was an essay, "The Geographical Pivot of History," published in 1904, which lay down the basic themes which he would continue to develop.[22] Though an advocate of British imperialism and of Western European interests, Mackinder parted ways with contemporary European thinkers in that he did not derive his analysis of world events on a European or 'Mediterranean'-centered interpretation of history.[23] He saw the history of the development of civilization as a constant struggle between land-based and sea-based powers. He identified the Euro-Asian-African land mass as the World Island. The core of the World Island was found in the steppes of what is now Russia, extending from the regions of Mongolia and inland China, pressing against the desert regions of the Middle East, and finally pressing into Eastern and Central Europe. This region was designated the Pivot Area. The margins of this area, including coastal China, India, extending to Southern and Western Europe, was designated the Rimland, or the Inner Crescent, while sub-Saharan Africa, together with the Americas and Australia, were designated the Outer Crescent. Great Britain, due to its geographical position and the relative independence of movement it enjoys as a result was placed in the Outer Crescent. Peoples moved from the Pivot Area outward, taking advantage of the freedom of movement afforded by the vast expanses and relatively unpopulated, unsettled

nature of its steppes and deserts, as well as its major strategic riparian arteries and inland seas (e.g., the Caspian, Black and Baltic Seas), and pressed against the settled and more densely populated and developed areas of the Inner Crescent.[24] In this, Mackinder is somewhat reminiscent of Ratzel when the latter spoke of the clash of nomadic and agricultural peoples. The peoples of the rimlands are led quite naturally to develop their countervailing sea power, drawing upon the traditions and skills developed over time because of their proximity to the open sea. As these two forces meet, the struggle between them becomes focused in the region where the furthest extent of the influence of land-based powers and sea-based powers overlap: the Heartland of the World Island. As the Western European sea-based powers have become, in modern times, the dominant sea-based forces of the world, controlling or otherwise politically dominating other rimland areas (e.g., the Middle East, India, China), the ultimate political struggle of our times was being played out in the Heartland area under Russian control, an area which the Germanic states, poised on the very border of the Pivot Area and the Inner Crescent, struggled to gain. As Mackinder summed up in his perhaps most oft-quoted words:

> Who rules East Europe commands the Heartland:
> Who rules the Heartland commands the World-Island:
> Who rules the World-Island commands the World.[25]

This succinct articulation of the Heartland Theory, quoted above from his book Democratic Ideals and Reality, was written in the aftermath of World War I, a war which Mackinder

felt proved the veracity of his views. Not only did the war occur as a result of the German-Slavic struggle over the Heartland, but two other political observations arose from this. First of all, according to Mackinder's analysis, one of the reasons that Germany ultimately lost was because its leaders had been unable to decide whether to follow a sea-power or a land-power policy in the years leading up to World War I. The German defeat was not merely due to the perennial German problem of being forced to fight on two fronts at once. It was a matter of the Germans making a poor choice in how to develop their own resources and then channel them effectively. Had the Germans chosen the land-power course in order to defeat Russia and extend German control over the whole of the Heartland, they would have necessarily have become the dominant power of the World Island.

First of all, for Mackinder the German experience in World War I not only provided evidence to support his Heartland thesis, but he also saw in this case the possibility that the understanding of geopolitical laws could allow leaders to make decisions which would allow them to bypass the apparently deterministic structures of historical and geographical trends. Had the German leadership understood the strategic importance of controlling the Heartland, they could have opted to change their war plans accordingly. Secondly, in the emergence of the Soviet state, with all its potential and its hostility to the West, Mackinder saw that the new state would continue to press against the rest of Europe (as

well as other parts of the rimlands) in much the same way as its predecessors had.[26] This observation was borne out by the events of World War II, during the course of which Mackinder wrote:

> All things considered, the conclusion is unavoidable that if the Soviet Union emerges from this war [World War II] as conqueror of Germany, she must rank as the greatest land Power on the globe. Moreover, she will be the Power in the strategically strongest defensive position. The Heartland is the greatest natural fortress on earth. For the first time in history it is manned by a garrison sufficient both in number and quality.[27]

Though Mackinder had no need, professional or otherwise, to exalt the virtues of sea-power as perhaps Mahan might have, he nevertheless agreed with the American admiral that the abilities of those nations which were oriented more toward the seas had necessarily to rely both on the productivity of their land (which, in the cases of the imperial powers, included their colonies and dependencies) and on their political acumen to distinguish between petty quarrels and vital conflicts. In the case of the latter, they ought know what strategies to adopt to prevent their true rivals from taking steps to decisively alter the balance of power in the state system.

> In 1870 Britain did not support France against Prussia.... [The British] knew what it was to enjoy sea-power, the freedom of the ocean, but they forgot that sea-power is, in large measure, dependent on the productivity of the bases on which its rests, and that East Europe and the Heartland would make a mighty sea-base. In the Bismarkian period, moreover, when the center of gravity of East Europe was being shifted from Petrograd to Berlin, it was perhaps not unnatural that contemporaries should fail to realize the subordinate character of the quarrels between the three autocracies, and the fundamental character of the war between Prussia and France.[28]

These ideas of these four philosophers of geopolitics began to influence South American political thinkers, particularly military men, in the 1920s and 1930s. The central themes of this new geopolitical school would be seen to be relevant to the study of many of the questions being explored in Chile, Argentina and Brazil. At this time these countries were striving to assert themselves as regional powers, and were eager to mobilize their human, natural and strategic resources to move up to the level of the industrialized countries.

Several of the themes examined above would lend themselves to the national projects envisioned by certain South American thinkers. (1) The inter-relationship of the characteristics of the nation, and the need to nurture each even while molding them into an integrated whole (as stressed by Ratzel, Kjellén and Mahan) would characterize not only South American geopolitical thought, but would be a major principle of the Brazilian National Security Doctrine.

(2) The need for states to strive for self-reliance, as stressed in Kjellén's Law of Autarchy, would be interpreted not only as a call for modernization and independence, but also, especially in the Brazilian case, as a call to settle and develop remote regions of the country and to tap their resources. While it has been argued that Argentinean advocates of the National Security Doctrine had taken autarchic ideas to extremes (to the detriment of Argentina's development)[29], striving for national self-reliance remained

a central theme in the doctrines of many Southern Cone military thinkers.

(3) South American geopoliticians stressed the priority of the health and strength of the nation and its government. They further emphasized the need for individuals to develop healthy nationalist sentiments, and to forgo personal freedoms for the good of the nation (ideas taken from Ratzel and Kjellén).

(4) The South American geopolitical thinkers adopted notions from all the aforementioned philosophers concerning the bonds of a people to its territory, the need to strengthen those bonds, and to strengthen the border areas in order to enhance national power and to defend against encroachments by others.

(5) Ratzel and Kjellén's interpretation of nations and states as living, integrated organisms was influential in the Southern Cone. Also influential were Mahan and Mackinder's assertions that through understanding the power of geographical and socio-political factors on a given nation's fate, national leaders could craft policies that would enhance that nation's power. South American geopoliticians, especially in Brazil, advocated activist solutions based on these ideas, which were meant to lead their countries to develop their potential.

(6) Finally, the idea of global political "closure," identified by Mackinder, would be a powerful element in South American geopolitical thought and in the formation of the

National Security Doctrine. Especially with the heightening of Cold War tensions, the inter-relation of countries in all parts of the world with the two great political camps would have a direct bearing on policies advocated by these Southern Cone thinkers.

PART II - GEOPOLITICS IN BRAZIL

The writings of Ratzel and especially of Kjellén were most influential in pre-World War II Germany. However, the Geopolitical school in Germany (with which Kjellén was involved until his death in 1922) was, because of its close association with the Nazi Regime, in large part responsible for the discrediting of geopolitical ideas in Europe after the war. The leading light of the German Geopolitical school, and founder of the influential <u>Zeitschrift für Geopolitik</u>, was army general and professor Karl Haushofer. He is presumed to have influenced Adolf Hitler himself as early as 1923, when Haushofer met with Hitler while the latter was imprisoned after his infamous Beer Hall Putsch (though some dispute this).[30] The German Geopolitical school was seen as having taken the original doctrines of Ratzel and Kjellén and progressively molded them to justify and lend academic credibility to such expansionist doctrines of the Nazi Party as that which justifies aggressive acquisition of <u>Lebensraum</u> for the dynamic German state.[31]

The thought of Kjellén was introduced in intellectual and military circles in Brazil as early as 1925 by the Brazilian geopolitician Everardo Backheuser. The writings of Kjellén, and to a lesser extent those of Ratzel, Mackinder and Mahan, had a profound influence on the development of geopolitical thought in Brazil (as well as in other South American countries). Some Brazilian geopoliticians were also associated with the scholars of the Zeitschrift für Geopolitik, and had articles published in the German journal. However, with the outbreak of World War II, Brazilian geopolitical writers first began to distance themselves intellectually from the German school. Later, with the dispatch of the Brazilian Expeditionary Force [FEB] to fight with the Allies in Italy, the break was completed. In spite of the conscious alignment of Brazil with the US in the post-war period, Geopolitics continued to be a respectable and highly influential political philosophy in Brazil.[32]

Brazilian geopolitical thought, while trying, and perhaps succeeding, to formulate a scientific view of the conditions, needs and potential of Brazil, borrowed heavily from scientific schools of thought in Europe. But though many of its themes represent unique features appearing for the first time in Brazilian intellectual circles, it also represents continuity with ideas present in Brazil from the time of the first European settlers.

> Our history - and our culture - is linked to two broad
> lines. One is our 'Atlantic vocation', accentuated by the
> great expanse of coast line, which compels our gaze

> toward the vast horizons of the ocean – toward what lies
> beyond. The other is the forests, the mountains, the wild
> undiscovered interior, the immense skyline stretching
> beyond the coastal mountains, which excited both the
> curiosity and the cupidity of the adventurers.... It is
> toward the interior that 'the collective soul must turn,
> as the needle of a compass is drawn magnetically toward
> the North.' This was to be the other broad line of our
> destiny.[33]

In the early development of Brazilian geopolitical thought, General Mario Travassos stands out as one of the most influential of its theoreticians, through his writings as well as through his positions as an officer in the FEB and as a professor in the Brazilian military's General Staff College. Travassos' writings, clearly influenced by Ratzel and Mackinder, concerned themselves with the description of the general geopolitical forces of the South American continent, and with the possibilities for adaptation to those continental forces by Brazil.

While Travassos describes the main geographical features of South America as they affect political, economic and demographic developments on the continent, from the outset he considered the conscious human modifications of geographical features (especially in terms of communications and infrastructure) as a factor of the greatest significance.

> Aspects like those of the la Plata region leave no doubt
> that political geography is not, in fact, anything other
> than geography animated by Man. One is once and for all
> convinced that without Man as a geographical factor, all
> geography becomes a body without a soul. It is in the
> political sense, in all its possible meanings, that this
> soul consists, above all, in those geographical realities
> created by Man.[34]

For Travassos, the South American continent is divided from north to south by the Andes Mountains. The fact that the Andes lie so close to the Pacific coast creates unique pressures for those countries located on that coast (Peru, Ecuador and Chile, and to a lesser extent Colombia) which are much less pronounced for those countries on the Atlantic (especially Brazil, Uruguay and Argentina). The former countries, geographically limited in their opportunities for expansion, competing for commerce and land within a narrower geographical context, and further removed (despite the opening of the Panama Canal) from the dynamic economic powers bordering the Atlantic and Caribbean, were seen by Travassos to comprise an area of great potential conflict. The Northern tier of South America, bordering on the United States' "Mediterranean Sea" (i.e., the Caribbean) are, due to their geographical location, quite open to U.S. penetration and influence. The two major riparian systems of South America, the Amazon and the La Plata Rivers comprise the other major geographical feature influencing the political development of the continent as a whole. Controlled by Brazil and Argentina, respectively, they are the lanes through which the inland countries and regions can communicate with the Atlantic, as well as the lanes through which Brazil and Argentina can extend their influence and development towards the heartland of the continent. Travassos contrasted the geopolitical forces of the two main riparian systems, claiming that the La Plata system is "centrifugal", even "concentric", and the Amazon

system is "centripetal".[35] Since the La Plata is more accessible and developed, the states and regions of the Bolivian plateau seek to tie themselves into this system. However, these same states and regions, being unstable yet critical areas in the continent (Travassos describes the Bolivian planalto as the South American pivot area, a la Mackinder) attract the development of the Amazon system into the area.[36]

After analyzing the geopolitical forces which affect general South American developments, Travassos turns to a more specific analysis of Brazil. At this point the analysis begins to take on an overtly prescriptive tone. Brazilians have already begun to consciously develop regions in the southern part of the country in response to the geopolitical influences of the La Plata basin, and with success. But he means for his analysis to guide future Brazilian development, as well.

> The geographical fatalism of the hydrographic basins is still one of the preconceptions of the old Geography in its impervious compartments- physical, political, economic, etc. In the spheres of modern geographical science, however, there is no longer a place for fatalism. This is the integrated science par excellence. The case of the La Plata basin and the communications [infrastructure] of southern Brazil are exuberant proofs of this.[37]

Travassos' main concern in his analysis of Brazil is the fact that Brazil's development has reached a crossroads. For the most part, Brazil's population, and therefore its economic centers, have "clung to the [Atlantic] coast like crabs."[38] Though there are easily understood reasons behind such a

development, the geopolitical forces which Travassos elaborately described will, according to that author, begin to assert themselves. These forces must be understood, and used to guide Brazilian developmental policies.

> When one views the whole of the territory of Brazil, set as it is in the continental mass of South America, the decisive factor lies in the notable possibilities for communications. Indeed, its clearest manifestations, whether expressed through the neutralization of the concentric power of the La Plata basin, or through the force of attraction of the Amazon, or through the coordinating capacity of the Atlantic coast in relation to both these great manifestations of economic and political potential, Brazil holds in its own hands.[39]

It is not only a matter of taking advantage of the geographical features of the country in guiding the further dispersal of the Brazilian population. One must also realize that the geopolitical forces which affect other nations as well can work against the interests of Brazil. For example, failing to disperse the population into unpopulated, unexploited areas, and failing to develop an adequate communications infrastructure to effectively unite the disparate regions of the country will leave these far-flung regions open to penetration by other South American countries, and even to extra-continental powers, such as the U.S., or those European powers which still maintain footholds on the continent (e.g., The Netherlands, Britain and France, through the Guyanas, which at the time of Travassos' writings were still colonies).

Travassos' analysis of the geopolitics of Brazil consists of an analysis of the features of the major regions

of the country: the Amazon system and the massive rain forest region [maciça]; the Atlantic coast, which is sparsely populated in the northeast, while densely populated and more developed in the southeast; the Matto Grosso area, as an extension of the Bolivian pivot region; and the region in the south bordering Argentina, Uruguay and Paraguay, which was then developing in accord with the attractions and competition of the La Plata Basin. At the time, Travassos seemed most interested in the development of the Matto Grosso region, as the region where he felt the most critical competition over the control of the continent was likely to unfold. However, he also advocated an integrated national-cum-continental development program, with specific recommendations for developing critically placed ports and rail centers to tie the Northern and Northeastern regions to the economic and political centers in the Southeast. He also called for the development of policies which would encourage population distribution into the critical areas, and, significantly, to tie in general social, educational and economic development with plans to expand Brazilian influence over all of its formally held territory.

Travassos, as the first major Brazilian geopolitical writer, though clearly influenced by the currents of European geopolitical thought, especially Mackinder and Ratzel, was mainly concerned with applying geopolitical concepts to the problems of the formulation of practical developmental policies meant to attack the problems Brazil faced in

realizing its political and economic potential. Though the other salient geopoliticians in Brazil shared these concerns, they devoted a large part of their writings both to honing the intellectual fine-points of geopolitical theory per se, as well as to popularizing geopolitical thought in Brazilian intellectual, political and military circles.

Everardo Backheuser was one such writer. Backheuser was in contact with Haushofer's circle in Germany, and was clearly influenced by the German School, and by the writings of Kjellén. Backheuser's writings exhibit a concern not only for the advocacy of the ideas of Ratzel, Mackinder and especially Kjellén, but also for the continued study of geopolitical principles, or laws (as he called them), and for the discipline's acceptance and progress, especially as it was meant to reform, or even supplant the study of political science as it was practiced at that time.

According to Backheuser, Kjellén was o grande Reformador [the great Reformer] of the study of politics, who broke through the narrow bounds of the discipline, to force students of the behavior of states to consider the dynamic forces which underlay it.[40] Contemporary political studies, bound by the concepts of modern Liberalism, considered the state only insofar as it played its role as the 'distributor of rights' and 'protector' of certain elements of society as they tend to their economic chores. In short, the state was considered as it "ought" to be, and in its juridical aspects. Kjellén,

according to Backheuser, rejected the a priori discussions of the state and sought to study it scientifically, as it is.

Though Backheuser had clearly developed some of Kjellén's ideas in the direction which the German School had taken them, especially in regard to the organic description of a state's boundaries and its tendency and need to develop, 'vivify' and expand its borders, he later took pains to distance himself from the Germans. Though his intent to disassociate Geopolitical doctrine from its connections with Nazism is clear, Backheuser's tone in doing so is neither polemical nor apologetic. Rather, it was put forth in a tone of philosophical debate, and of honest disagreement over the limits of application of Geopolitical principles.[41]

Backheuser built his explication of geopolitical doctrine squarely on the work of Kjellén. It is Kjellén's 'scientific' approach which becomes most central to Backheuser's geopolitics. He was concerned with the discovery and elaboration of the laws governing the various elements of the study of the state as an organism, and in the integration of the various concepts.

First of all, the basic elements to be considered are a state's anatomy or morphology (Morfopolitica), its physiognomy (Fisiopolitica), and its relation or comparison with other states with which it must deal, or which exert influence upon it (Topopolitica). The analysis of its morphology includes its basic natural geographic features, as well as its demography, and such features as its communications

infrastructure, the location of its major cities and its capital, "the center of gravity of national life."[42] The study of its physiology concerns the understanding of what Backheuser calls the state's Dominion (<u>Dominio</u>), which includes the extent to which a state has territorial continuity, as well as the ability of the state to extend its political and cultural influence to all corners of its territory. As Backheuser would have it, this analysis deals with the state as a 'political region' rather than as a 'natural region' (as analyzed morphologically). The comparative study of the state then concerns its geographical situation relative to other states. The study of its geographical situation then reveals the various pressures and influences, cultural, economic or political, which impinge upon the state in question.[43]

In analyzing the natural and constructed features of a state, the extent and nature of its dominion, and its geographical situation, it becomes clear that the question of the nature of borders and their study is of critical importance. Backheuser catalogues the types of borders usually studied by students of geography or politics, including natural borders (e.g. rivers, seas, mountains); demographic borders (marking linguistic, racial, religious, or cultural groupings); or 'designed borders' (<u>fronteiras</u> <u>esbocadas</u>), which have been agreed upon through political negotiation, and usually drawn by cartographers using, for example, lines of latitude and longitude. The inadequacy of relying on such

traditional notions of boundaries leads Backheuser to formulate his first two Laws of Geopolitics. The first, which he draws from Ratzel, is the Law of the Frontier Zone (_fronteira faixa_), which states that political boundary lines themselves, even if based on readily identifiable geographical features such as rivers and mountain ranges, are only abstract or symbolic demarcations. One should be less concerned with the formal boundaries than with the actual characteristics of the border zone. That state which maintains an active population, which conducts economic activity in the border area effectively determines the true border. In the event that one state may actually influence activity or reap economic benefits in the border area beyond that line drawn on the map, then as far as the geopolitician is concerned, the extent of control, rather than the formal boundary, may be considered within the dominion of the state exercising this control. The second law, that of the Artificiality of Borders, compliments the first. Even if boundaries are 'natural,' in that they conform to the salient geographical features of the border area, it is nevertheless the case that they have been determined either by bilateral conventions or unilateral impositions.

The forces which put pressure on a border region are the result of the characteristics of the population and culture of the contiguous nations. Here Backheuser posits another Law of Geopolitics: the Law of Pressure. Though not meant to be

strictly quantifiable, Backheuser illustrates the pressure imposed on a border with the following formula:

$$P = VF$$
P = latent geopolitical pressure on the border
V = the 'vitality index'
F = material force (potentially capable of moving the border)

The 'material force' includes such elements as the density and absolute size of the population, its psychological characteristics (such as the people's initiative, perseverance, organizational ability), as well as the material resources at its disposal (e.g. mineral deposits, potential agricultural production, etc.). The 'vitality index' is derived from population growth, commercial activity, strength of a nation's industrial base, per capita income, as well as more subjective elements manifested in a variety of cultural activities.[44]

The applicability of this formula is relevant to the three possibilities that exist in a frontier region. The first case, in which an arbitrary border (fronteira esboçada) has been determined in a remote region where there is a relatively small population and limited economic activity on either side of the border, is one in which there is little if any pressure on the frontier from either side, leaving a stable border. The second case, in which there is a large and active population on both sides of the border, there is bound to be friction and competition for influence, according to Backheuser. In this case, though great pressure is being

exerted on the border from either side, dislocation of the border will not necessarily occur, as both contiguous nations are likely to invest effort and resources in the area. Nevertheless, changes of the borders in such regions would clearly favor either the more dynamic nation, or that nation with the greater diplomatic skill. In the third case, where one side of the border has an active population when the other doesn't, Backheuser predicts that an 'invasion' will inevitably occur, whether that invasion be an actual military one, or 'peaceful', that is, a gradual spilling over the border of population and economic activity, effectively moving the border and expanding the more active nation's dominion. All frontier zones which exhibit demographic and economic activity from one or both sides, are inevitably points of friction between nations.[45]

Backheuser adopts a frankly Kjellian view of a nation's border as functioning as the peripheral organ of the state. The border of a dynamic state will simultaneously expand to augment the original area controlled by that state, as well as to assume a form with as few convolutions as possible (making it more defensible and less easily penetrated). Nations which are politically and culturally cohesive will tend to exert pressure, emanating from its center to its border areas, making its frontiers less permeable. Non-cohesive nations are unable to do this, leaving their frontier zones open to penetration or invasion. Continuing the biological analogy, borders serve, at one and the same time: to make the nation a

distinct entity; to clearly separate it from other nations; to protect the nation; and to help unite the nation. Yet it is, and ought to be, a permeable membrane, allowing for commerce or trade, and for the exchange of ideas. Even if desirable, the ability of borders to restrict cultural interchange or the penetration of foreign ideas is limited.

After discussing in detail the important features of geopolitical doctrine, Backheuser applies them to the Brazilian situation. First, he analyzes the geopolitical features of Brazilian history, dividing that history into four periods. The colonial period (from the Treaty of Tordesillas in 1493 to 1822) was the original colonization of Brazil, which featured a prolonged and strong extension of the frontiers, from the original coastal settlements into the forbidding interior of the South American continent. By the time that Brazil became an independent monarchy (the second phase, 1822-1889), this expansion of the frontiers had slowed, and the state was devoting more attention to consolidation (regularização) of the society and economy in the territories already clearly within Brazilian borders. The third period (1889-1918), which began with the First Republic, was characterized primarily by the efforts of the Baron Rio Branco, who undertook the legal clarification and expansion of Brazil's borders through a series of accords negotiated with Brazil's various neighbors. For the fourth period, the contemporary period, Backheuser raises the call for active development (vivificação) of the remote frontier zones.[46] As

the geopolitical analysis of the nature of frontiers clearly shows, should the frontier regions of Brazil remain undeveloped and unpopulated, other nations may take the initiative of developing their sides of the borders, creating demographic, political and economic pressures which would push back the formally drawn borders (fronteiras esboçadas) and deprive Brazil of valuable land which ought to be within its dominion. While Brazil does have dynamic border regions in the South, it needs to strengthen its relative advantage on its borders with Peru and Bolivia, and it clearly needs to implement a program to 'vivify' its formal borders in the North, from Colombia and Venezuela to the Guyanas. Backheuser calls for a Frontiers Policy, a crucial element of which is a policy of productive population settlement (povoamento produtivo). There is a need to create economically active centers in remote frontier regions, and to tie them together and to the center with an expanded infrastructure.

> The country is in need of active frontiers while it completes its Geopolitical perfection. Just as it is impossible to conceive of a country without a capital and without a system of communications, so it is also missing an essential feature if its frontiers are not fully utilized.[47]

Golbery de Couto e Silva was an influential military officer recognized as a major expositor of geopolitical doctrines in Brazil. As a senior officer involved in the 1964 coup which put the military in control of the Brazilian government for almost two decades, General Golbery was considered the eminence gris behind the early military

administrations, though he himself never served as president. (He did serve as the first chief of the domestic intelligence agency of the regime, the Servico Nacional de Informações, or SNI.) Golbery was a pivotal figure in the development of Brazilian Geopolitical Doctrines, linking geopolitical philosophy to the development of the National Security Doctrine.

Writing on Geopolitics, Golbery too examines the ideas of the founders of modern Geopolitical thought, as well as the various schools that had grown out of the original ideas. Whereas Backheuser proclaimed his "intense desire to remain loyal to the principles of Kjellén,"[48] Golbery clearly based his approach on a synthesis of the general ideas of Kjellén, Ratzel, Mackinder and Mahan.[49] These four thinkers formed the basis for that tradition which Golbery calls Political-Geopolitics (to differentiate it from another, less influential French school of geopolitical thought, which Golbery refers to as Geographical-Geopolitics).

Golbery is clearly aware of the influences and attractions of the intellectual currents of the 19th century which gave rise to Geopolitics. The great strides made in the physical sciences, and especially the impact which Darwin's theories exerted, served to imbue philosophers and social scientists with a respect for scientific methodology (and a desire to appropriate it for use in their fields), and with the sense that human society was advancing, evolving toward a higher state. That Kjellén would insist that the State must

be considered as being a sentient organism can be seen as a reflection of that. Ratzel as well saw value in such a conception, though for him it remained more of an analogy, and at that one of strictly limited utility. While Golbery sees these as useful theories, considering the intellectual and political landscape as a whole, it is not surprising to him that such biological conceptions of the state, when in the hands of those less scientifically rigorous, or blinded by national passions, become distorted into an apotheosis (endeusamento) of the State. Geopolitical doctrine should guide political policy and political action, but it should also retain its dispassionate scientific character.[50]

Golbery's comparison of the ideas of Mackinder and Mahan yield a similar lesson. Each discovered very important elements of the role and influence of geopolitical forces on political (and military) development in a related sphere of study. Yet each derived different programmatic policies from their findings. The different policies advocated by these latter two thinkers differed because of the national concerns of each. Mackinder stressed the need for his country, Great Britain, to retain its maritime supremacy and its empire, while entering into alliances and adopting policies to protect it from the potential threat which could arise in Central and Eastern Europe. Mahan stressed the need for the United States to assume what had heretofore been Britain's role, primarily by extending its naval influence to the Atlantic and to the Pacific, and uniting with Britain against the potential

threats from Central European and Far Eastern powers. From his examination of these ideas Golbery extracts two lessons. The first is that from the development of general geopolitical thought a new and valuable scientific way of looking at politics and the State has taken root. Part of its value lies in the fact that it now has altered the way in which social scientists must examine their subject because now that the world has evolved into one closed system, all states are actually or potentially affected by events anywhere in the world.

Secondly, the examples of Mackinder and Mahan, and even of Haushofer, illustrate that geopolitical events, when examined from the point of view of individual states, will reveal special lessons of value for the formulation of policies within each state. Such lessons can be distorted, with tragic consequences (as in Germany), yet each state, if it is to survive and develop, must take into account its place in the world and base its policies on the knowledge of the geopolitical forces which impinge upon it.

When Golbery moves to a discussion of the Geopolitical aspects of Brazil, in many ways he echoes the analyses of Travassos and Backheuser. Golbery's most innovative contribution is his expanding the forms of policies to take extra-continental considerations into account. Both Travassos and Backheuser had something to say about the influence of the United States in South America, or of those European countries which maintained footholds on the continent. Their analyses

of such influences were nevertheless treated within the context of South America. Golbery, in effect, reverses this, and places Brazil and South America as a whole into the context of global politics.

In his analysis of the geopolitical problems of Brazil, he divides the field into two parts: the internal and the international. Brazil's concerns in the former are those of vivifying remote border regions, enhancing the infrastructure of the state, concern over politically sensitive borders, etc. New concerns are raised in the international sphere: degree of dependence on outside powers, especially extra-continental ones; pressures from such powers; and the proximity to the centers of economic and political power. These were to be considered in addition to the continental concerns already expressed by the other writers.

Brazil's possibility for enhancing its geopolitical advantages no longer rest solely on its ability to project itself into the interior of South America. The South Atlantic has assumed greater importance with the expansion of world trade, and Brazil has a part to play in guarding its security, especially as it partly controls the "choke-point" between Brazil's Natal salient and the West African Bulge (estrangulamento Natal-Dakar). In realizing the importance of this new role, Brazil's security is now not only linked to that of Western Africa, but to the economic and political powers who value passage through the South Atlantic to the Indian and Pacific Oceans, as well as to Antarctica. More

than merely having the security of the South Atlantic in common, those powers which seek to maintain free access are also those powers with the resources which Brazil (and South America as a whole) needs in order to develop further. For Golbery, World War II proved that the Brazilian Northeast was strategically important to the United States. This region could have been a potential bridgehead for enemy penetration, had the Axis succeeded in consolidating its hold in North Africa. Furthermore, the Northeast served as an outpost for guarding the mid-Atlantic sea lanes, and as a crucial landing point for Allied supply shipments to the North African and European theatres. In the post-war period, the Brazilian Northeast should be expected to remain strategically important. Golbery insisted that Brazil cannot hide from the Soviet-American confrontation, and rejects the so-called Third Position advocated by some Latin Americans, which seeks to do just that by maintaining a hostile attitude toward the United States. Though it is in Brazil's interests to cooperate strategically with the United States, both in order to prevent Soviet penetration into the Western Hemisphere, and to induce the U.S. to provide Brazil with the necessary resources and markets, the Northeast remains inviolate Brazilian territory, to be utilized as Brazil sees fit.[51]

Furthermore, Brazil has links to several different key sub-divisions of the contemporary world. By reasons of culture, history, geography and level of development, Brazil should see itself in solidarity with the other Portuguese-

speaking nations, which span four continents; the greater Latin cultural sphere, which includes Latin America and the Latin cultures of Europe; the Catholic nations; and the underdeveloped countries. As an essential ally of the United States, but also with 'windows' (janelas) on these other cultural and political divisions, Brazil is in a position to act as an intermediary and to project its influence well beyond South America.[52]

Like Golbery de Couto e Silva, the Geopolitician Carlos de Meira Mattos was another thinker whose thought tied the tradition of Geopolitics clearly to the formulation of Brazil's National Security Doctrine. Like Travassos and Backheuser before him, he took pains to examine the development of Geopolitical thought from its roots in Kjellén's and Ratzel's writings. Significantly, his assessment of "the frightful Haushofer" (o tenebroso Haushofer) is much more critical and unforgiving than those of Backheuser or Golbery.[53]

Like Golbery, Meira Mattos looks beyond Brazil's need to establish its influence in the South American continent. Brazil represents one half of South America, and projects itself geographically towards the region designated by Mackinder as the World Island. This being so, Brazil has a critical role to play in defending both the Western Hemisphere and in maintaining Atlantic security. Perhaps more so than Golbery, Meira Mattos develops this theme in terms of Brazil's specific security interests.

> Today, within the framework of continental defence and
> Western strategy, Africa is of much more interest to
> Brazil than any other area in the world. It is by it that
> the principle lanes of maritime traffic pass, essential
> to our security, including the so-called "Cape Route." It
> is from there [Africa] that we must protect our own
> territory. Should a potentially hostile military power
> occupy Africa's Atlantic slopes, it would become a
> permanent threat to us.[54]

But Brazil's own security remains tied in with that of the
United States, for if any major force wished to attack North
America, pushing through Africa to Northeast Brazil would
provide an enemy with the ideal base from which to threaten
the U.S.

PART III - THE BRAZILIAN NATIONAL SECURITY DOCTRINE

The National Security Doctrine in Brazil developed from
the basic ideas of geopolitical thought. Through the
systematic efforts of officers and civilians principally
associated with the army's Escola Superior de Guerra, or ESG,
the elements of the doctrine were researched, debated and
refined throughout the 1950s and early 1960s. The formulators
of the doctrine strove to integrate their assumptions and
findings in the areas of politics, geography, economics,
sociology, strategy and other subjects, into one well-
integrated body of thought which could guide Brazil's healthy
development.

There are any number of questions which need to be dealt
with concerning the founding of the ESG, the development of
its doctrines, the political goals of the military, and the

another, that the intellectual roots of the doctrine lie in the development of indigenous thought in Brazil and other South American countries.[57] Writers sympathetic to the doctrine do not deny the links with North American policies either, though these writers, not surprisingly, have an even greater concern to show the continuity of development of the National Security Doctrine back to ideas that had already taken root in Brazil.[58]

Methodology is an important feature in the articulation of the various facets of the National Security Doctrine. All of its expositors are concerned with clearly defining critical terms, applying a consistent order of analysis, or reiterating the boundaries between the analytically distinct but practically indivisible subjects under study. The style of writing used by the doctrine's formulators is very systematic, ordered and meticulous often to the point of over-repetition, which immediately creates an impression of a truly scientific approach. Whether or not the formulators of the doctrine actually achieved the level of dispassionate scientific analysis that this style implies is a matter of debate. Nevertheless, noting the above, the reasons for the close attention paid to the terminology of the Brazilian National Security Doctrine in the following exposition will be more readily appreciated.

The most important intellectual tradition from which the National Security Doctrine grew is, of course, geopolitics. This is important for several reasons. Most important are the

assumptions and concepts which were developed by Brazilian geopolitical thinkers which formed an integral part of the doctrine. Furthermore, several of the important geopolitical thinkers were also among those who took part in the formulation of the National Security Doctrine, including Golbery de Couto e Silva and Meira Mattos. In the first years of the ESG, Golbery designed and led several special conferences at the ESG on geopolitics, in 1952, 1954 and 1959. Altogether, by 1964, there had been nine such special conferences. After the Revolution (or Coup) of 1964, the specific teaching of geopolitics went into eclipse, but it was revived in the 1970s by a conference arranged by Meira Mattos.[59]

Basic concepts of the National Security Doctrine, especially those which define the nation and its relation to its state, territory and constituent individuals, have a clear geopolitical stamp. While there are constant references to the need to foster the well-being of the Brazilian Man (o homem brasileiro)[60], a classical liberal concept of the individual is not a part of the doctrine. Individuals are not sovereign actors, but are defined by their place in society. Well-being for the individual, which is a stated goal of the doctrine, is defined in terms which improve the conditions of the collectivity of individuals (rather than the rights of each individual per se) so that they are able, in return, to contribute to society as a whole.[61]

The concept of Nation has a Geopolitical stamp as well:

A Nation is a historico-cultural structure formed of a determined part of humanity, in a determined space of territory, during a determined time, held together by common customs, habits, vocations, struggles and fortunes, and which seeks to preserve the values it embraces and to realize its envisaged objectives.[62]

A Nation has national interests which are indispensable to its survival. The articulation and integration of these interests constitute its national aspirations. At a given stage of development these aspirations become more definite and urgent, and the Nation must devote all of its resources to achieve its national objectives. While some of these objectives are variable, or of short duration, there are some objectives which always remain as the bedrock of national life: Permanent National Objectives.[63] These permanent objectives are based on the fundamental biological, psychological, historical and cultural formation of the Nation's population, its relation to its land with its unique qualities, and the qualities of its institutions. Specific examples of such Objectives tend to be of the most general sort: territorial integrity, national integration, sovereignty, social peace, etc. The concepts of Current National Objectives and of Permanent National Objectives are employed frequently in the formulations of the various aspects of National Security Doctrine.[64]

The concept of State is clearly Kjellénesque:

The State is the Nation in organic terms. It is the organ in which the peculiar conditions of the specific physiology of the national community are consummated.... The State is the organism of a political nature which promotes the attainment and maintenance of the National Objectives through the ordered and effective utilization

of every sort of means which are at the disposal of the Nation.[65]

The four essential elements of the State are: population; territory; government; and sovereignty. The sovereignty of the State refers both to its position in the world community and to its relationship with the society it represents. Since interdependence among states is a hallmark of the contemporary world, the notion of absolute sovereignty is problematic. In order to promote certain aspects of development the State must rely on the talents or resources of either external or domestic elements. It may be in the interest of the State, as the organ pursuing National Objectives in the name of the Nation, to acquiesce in the partial limitation of its sovereignty. This would nevertheless have to be a voluntary limitation (autolimitição) on the part of the State.[66]

The concept of Power is another of the central concepts of the National Security Doctrine, for it is through national power that a Nation has the wherewithal to achieve its objectives. Though national power is essentially indivisible, in that all of its components are dependent upon one another and act upon one another, it may be divided for the purposes of analysis into what are called its basic expressions (expressões): Political Power; Economic Power; Psycho-social Power; and Military Power. Each of these expressions is affected by fundamental elements and by factors. Elements tend to be of a more enduring nature (e.g. size of population

or basic geographical features); factors are of a more contingent or variable nature (e.g. educational level of the population or man-made modifications of geographical features). Each of the expressions may be treated analytically as factors in the evaluation of other expressions.[67]

Political Power concerns that power exercised by the government with the support of the population, through the institutional structures developed by the Nation. The concept of government is not equivalent with the concept of the State, the latter being more inclusive. Rather, the government "...is the propulsive force of the machine of the State, dynamizing the political institutions."[68] In fact, the 'support of the people' is a problematic phrase, for many authors stress the fact that historically the desires of the people are often invoked by the most venal and demagogic political opportunists as well as genuine national leaders. The only meaningful way in which the true aspirations of the people, and therefore, the corresponding actions of the State, can be ascertained and articulated, is through an in-depth analysis of the Nation's Current and Permanent National Objectives. A responsible government assumes the role of guardian, especially in the case of underdeveloped countries. Those social groups which take the helm of the government have the dual task of formulating national objectives and of winning the confidence of the people through a reciprocal process of education.[69]

The main tasks of those exercising the Political Power of the State lie in discovering the Nation's National Objectives, formulating plans of government action to stimulate the activities which will lead to their realization, coordinating and organizing all of the various actions in different fields. There is a great emphasis placed in most writings on the National Security Doctrine on planning. Regarding planning, especially on the part of the State, there arises an acute ideological problem since so much of the Doctrine is based upon the premises of the Cold War, which pits the Christian and Democratic West against the Marxist-Leninist East. The sensitivity that all of the advocates of the National Security Doctrine display concerning Cold War themes (in which they identify Brazil's destiny as unreservedly tied to that of the West) is palpable in their defense of the role of government as planner, since extensive state-planning is so strongly associated with Communist regimes. Part of the defense of the state planning is based squarely on the needs of underdeveloped states to create the conditions which will allow them to develop. The urgency of development needs are expressed not only in terms of National Objectives, which seek to enhance the well-being of all the people within the Nation, but also in terms of security. Though the aspirations of the people (in this case, the Brazilian people) are molded, in part, by their strong roots in Christian and Western European culture, the social disparities that exist within the Nation lend themselves to

manipulation by outsiders, particularly those working at the behest of the Soviets. The eradication of social inequalities therefore becomes a pressing security issue as well. If demagogues and subversives were allowed to exploit the situation, the Nation could be fragmented (for example, by pitting different social groups within the Nation against others). This in turn could lead to the imposition of a socio-economic system which contradicts the fundamental elements of the national culture (e.g., Christianity, democracy), and which would place it under the direction of the non-Western, Communist world. Therefore the government, working for the unity and well-being of all groups within the Nation, is obliged to proceed rationally and energetically to tackle all of the potentially divisive domestic problems. There is no time to allow the Nation to develop undirected. These ideological needs are further buttressed by the observation that even the developed Western democracies, with which Brazil is necessarily allied, can no longer follow a course of total _laissez_ _faire_. All have bowed, to a greater or lesser degree, to the needs for economic and social planning.[70]

Economic Power is seen as having two fundamental and interrelated aspects: development and security. It is clear that there will often be tensions between the two needs. In times of peace the needs of the security system, exemplified by the Armed Forces, and those of the productive sector of the economy will be in competition over the resources of the

Nation. But it has also become abundantly clear that, as methods of war have evolved in this century, that in times of war military power is directly dependent on the economic power of the Nation it seeks to defend. This situation has transformed the traditional dichotomy of "guns or butter" into the contemporary necessity of "guns and butter".[71]

The three fundamental elements of Economic Power are a Nation's land, work force and capital. To have real value for National Power, a Nation's natural resources, in the form of minerals, arable lands, riparian systems (for transport or hydroelectric generation) must not only be present but must be accompanied by the technological, organizational and man-power means to utilize them. The human resources of a Nation, from which the work force is drawn, include the size of the population (and of the economically active population), its distribution throughout the national territory, as well as its educational level and productivity. The capital at the disposal of a Nation cannot only be measured in straightforward financial terms, but the means to effectively employ that capital depend on the development of transport and communications infrastructure, the structure of the Nation's financial and economic institutions, and on the quantity and quality of natural and human resources. In addition to the interdependence of these three elements, for a country as vast as Brazil, concerns about the regional disparities that exist, as well as the need to tie together the disparate regions, present additional needs and goals which must be evaluated.

> In order to characterize the effect of [the economic structure] on National Security it is enough that we consider its contribution, at once indispensable and essential, for the provision of the necessities of subsistence of the population and guarantees of its mode and standard of living, as well as for the contingency of war, with direct implications for territorial integrity, national sovereignty and social peace. On the other hand, the accommodation of this structure to the national complex, sought for in its constant development and indispensable sectoral and regional equilibrium, prepares the ground on which they come together for national unity and social peace.[72]

Insofar as economic development is able to help in national unification, improving the standard of living (thereby contributing to social peace), it can then create the conditions through which the nation can begin to free itself from external dependence, which in turn enhances sovereignty, an important goal of national security.

The Psycho-social Expression (<u>Expressão Psicossocial</u>) of National Power is the most complex and controversial of the essential elements listed. The evaluation of the psycho-social characteristics of a Nation is possibly the most subjective, least given to adequate scientific measure; yet such subjective evaluations have been used, in part, to justify the assumption of power by elites which, not surprisingly, have themselves determined that they don't seem to suffer from the character flaws with which the masses are afflicted.[73]

The fundamental elements of Psycho-social Power concern the population (e.g. density, composition, growth rates); social structures (e.g. family, communities, social classes and elites, political parties, clubs); and national

characteristics.   This   latter   category   is   the   most
confounding, and yet it has been felt to exert a tremendous
influence on a Nation's capacity for progress.   At various
times, ESG conferences wrestling with this theme have produced
lists of such characteristics which describe the Brazilian
people. One conference, held in 1967, produced the following:

        Basic Qualities of the Brazilian Character
            -Individualism   -Cordiality
            -Sentimentality   -Communicability
            -Adaptability   -Pacific Tendency
            -Improvisation

        Complimentary Qualities of the Brazilian Character
            -Emotional instability
            -Tendency to generalize
            -Respect for beliefs and religions (these three are
                Portuguese characteristics)
            -A love of liberty (from the Indians)
            -Abstraction, poetic and aesthetic sense (from the
                Africans)
            -Idealism and theorizing tendency (from the Germans
                absorbed into our nationality)
            -Exuberance of gestures, cultivation of art (from
                            the Italians)
            -Critical sense and irreverent humor
            -Ornamental culture[74]

Other characteristics often cited have more deleterious
effects, to the point where they constitute obstacles to
achieving national objectives (predisposition to indolence,
lack of ambition and motivation, etc.)   Even without
considering the extent to which the participants in such
conferences might have admitted to partaking of these
particular characteristics of the Brazilian people, the
problem of the subjective nature of this subject, and of the
uses to which such characterizations would be put, become
highly problematic.[75]

Attendant on these social factors is the concept of national morale (o moral nacional - this might be also be translated as national morality, since both motivational and ethical nuances are implied in the concept's elaboration). Whereas national character has formed over a long period of time, national morale is more dynamic and subject to change. National morale is strongly affected by national character, but it is also influenced by social forces and conditions (as vigencias sociais). While some characteristics are, and may remain, obstacles to development, changes in the social reality can have the effect of enhancing the influence of positive characteristics, or even ultimately changing them.[76]

The psycho-social sphere is also most crucial to national security as that sphere where the great ideological battles may be won or lost. The tactics of subversion, of guerilla or revolutionary war, are the tactics employed in the Cold War, and are directed primarily towards the vulnerable underdeveloped countries such as Brazil. If the social grounds for national discord exist, they will be exploited by external forces or domestic demagogues. The population in an underdeveloped country is in "...an adolescent stage of the people, who want to progress, but as yet cannot distinguish between the possible and the impossible; who know what they want, but as yet do not know how to chose. Amid competing promises, demagogic propaganda grows."[77] The social chaos that may result, even when the basic demands of the groups

seeking change are justified, can only weaken the Nation, and play into the hands of the Nation's enemies.[78]

In any situation, there are obstacles to the implementation of policies designed to achieve development and security. The condition of underdevelopment itself is an obstacle. Such obstacles may be of a technical nature: poor organization; lack of facilities in a given area; geographical obstacles; etc. Or they may be of a political or psychological nature: resistance to change; defense of the interests of a certain social group; etc. All such obstacles are classified as Antagonisms. Those Antagonisms of a political or psycho-social nature are classified in the sub-group of Pressures. Though Pressures in the form of political opposition must be overcome in order for the State to implement its policies, Pressures are not necessarily all evils to be extirpated. The criteria by which to differentiate between those Pressures which are legitimate (and for which ways to accommodate them are institutionalized in the political system, through recognized political parties, for example), and those which are not, are twofold. Insofar as the opposition which constitute Pressures does not oppose the existing regime per se, but only criticizes some of its policies, and insofar as this opposition questions only the Current National Objectives, but not the Nation's Permanent National Objectives, these Pressures are deemed compatible with the system. Those that persist in opposing the regime itself and reject the Permanent National Objectives of the

Nation are regarded as *Dominant Pressures*, and are seen as threatening to the security of the Nation. Because the Nation is viewed as an organic whole, and its Permanent National Objectives as developed by its elites (<u>grupos</u> <u>dirigentes</u>) acting in the interests of the Nation, are essential to the achievement of the well-being of the entire Nation, Dominant Pressures, i.e. opposition which rejects the national goals, are seen as pathological developments, not to be accommodated, but rather to be eliminated, to maintain the health of the Nation.[79]

The Military Expression of National Power is made up of fundamental elements such as the institutionalization of the Armed Forces as a part of the State structure; the nature of the military structure itself as it affects the ability of the military to perform its functions; and the military doctrine of the Armed Forces. The factors which affect Military Power include: the capabilities and talents of the High Command; the level of instruction and training of soldiers; military morale; and the ability of the Armed Forces to adapt, to absorb, and even to initiate technical advancement in military equipment and armaments. It is the role of the military to overcome those Pressures (usually Dominant Pressures) which cannot be accommodated within the institutions of the Nation, or overcome by pacific means (e.g. counter-propaganda or education). The military, defending the body of the Nation, is a crucial element for overcoming Dominant Pressures from domestic as well as foreign sources. Backheuser, citing

Kjellén, claims that an attack on the territory of a State should not be viewed as a crime against property, but rather as analogous to a crime against a person: loss of territory by a Nation is like the loss of a limb to a person.[80] The military is the agent which protects the national organism against such crimes from an external source. It may also have to be employed domestically to extirpate the diseased segment of the national organism.[81]

National Security depends upon the skillful coordination of the four expressions of National Power. Clearly, the concept of security is much broader than that of defense, the latter having a much more limited, usually reactive sense, and remains centered on the functions of the military. National Security will be defined differently from nation to nation, from one time period to another. National Security policy should guarantee the ability of a nation to achieve or maintain its vital objectives and to overcome Antagonisms, by peaceful means when possible or by war if necessary. To develop each of the Expressions of Power adequately and in a coordinated manner, the State must adopt a National Strategy (Estrategia nacional), made up of specific strategies to develop each Expression.[82]

The National Security Doctrine developed against the backdrop of the Cold War. Brazilian National Strategy is formulated with this reality in mind. A National Strategy is necessarily a meta-policy for action, and it assumes the existence of Antagonisms and Pressures. The doctrine's

formulators assume that the Soviet Bloc is a real or potential source for such Pressures, and that the nature of the Cold War is such that it is fought (or will potentially be fought) on all levels (to which there are corresponding levels of National Power). Therefore, action must be taken at all levels -- political, economic, psycho-social and military -- to overcome the Pressures, if the Nation is to achieve Security and Development, both of these being indispensable for achieving the Permanent National Objectives.[83]

Critics of the National Security Doctrine, impugning the sincerity of its formulators, describe its evolution in such a way as to make the point that prior to 1967 the emphasis on social and economic development was primarily connected to the political and military needs and desires of the Doctrine's advocates. It was only after U.S. policy towards Latin America began to emphasize the necessity of addressing the social and economic needs of the masses, both as a means for eradicating those conditions upon which subversives prey as well as being an end in itself, that the advocates of the Doctrine adopted a rhetoric which echoed the new line of U.S. policy makers.[84]

Indeed, even writers sympathetic to the Doctrine acknowledge that this was the case.

> The doctrine therefore sensitized itself to the concerns of development. If until 1967 national problems had been treated under a permanent prism of National Security - and therefore planning of respective policies had as its goal the strengthening of National Power, in order to be prepared for the possibility of war - the view was now to be more diverse.[85]

This is not to say, however, that development, per se, was a concern adopted late in the game merely for the sake of appearances. The urgent pleas of the earlier Brazilian geopoliticians to develop the nation's infrastructure and communications, to tie together the far flung regions of Brazil, to raise the level of education and health for its citizens, had been adopted from the first by the thinkers associated with the ESG. The truth in the assertion of the critics is that the focus was on developing Brazil's potential as an emerging great power, perhaps as the first great power of the Southern Hemisphere.[86] Developmental goals, including those which would improve the standard of living for the Brazilian masses, were continuously present, but more as a means for achieving national greatness (grandeza) and prestige by improving and harnessing all of the nation's resources, including human resources. The change in tone of U.S. policy makers created a corresponding change in tone among ESG intellectuals. The long-standing assumptions that a neo-capitalist model (including the need for judicious state intervention in the economy) was appropriate for Brazil were, of course, never abandoned. But these assumptions began to be mitigated by declarations concerning the need to curb the more pernicious and greedy aspects of capitalism in order to better channel the system to achieve the well-being of all members of the nation. Development per se was always an integral part of the policies of the geopoliticians and of the advocates of the National Security Doctrine. But the explication of the

benefits of development were expanded in response to North American influence.[87]

Even with this change the National Security Doctrine remained fundamentally elitist. There is a rhetorical commitment to democracy which permeates the writings of the most geopoliticians and advocates of the National Security Doctrine. The possibility of participation in the political process on the part of all Brazilian citizens is maintained. Yet there is a ubiquitous theme which runs parallel to the concerns about extending basic education, social services, protecting the rights of workers and their families, etc. This theme stresses that because national education has been so poor and social conditions are in such need of improvement, the Brazilian masses have not yet attained the requisite political maturity to participate fully in a democratic system. For advocates of the doctrine this explains why demagogues have been so effective. This is why the nation is so acutely vulnerable to penetration by hostile ideologies. According to the doctrine, the political system must be improved (for example, to eliminate patronage, inefficiency, establish judicial independence, or to coordinate the activities of the various ministries), and some form of political party participation had to be maintained. But it was also the case that voters had to be educated, and that workers had to be taught their responsibilities as well as their rights, if the system were to function and then progress.[88]

It is the leadership of the State along with associated elites (<u>grupos</u> <u>dirigentes</u>) which are conscious of the Nation's Permanent National Objectives, and possess the ability to formulate the appropriate National Strategies based upon these objectives. Therefore, in accordance with the organic view of the Nation inherent in the National Security Doctrine, the State and associated elites will necessarily be the natural leaders of the Nation. (There are logical problems inherent in such a formulation. The doctrine's formulators seem not to have dealt with the possibility that these same assumptions about the organic nature of the Nation might logically lead to the recognition of a 'defective' regime as perhaps being the natural articulation of the needs of an underdeveloped nation. Within framework of the doctrine, however, one might still make a case for prescribing the appropriate remedy for the disease. The development of the National Security Doctrine itself, and even the coup which it arguably inspired, could be described as equally 'natural,' and legitimate articulations of the Nation's needs.) While the State interprets the needs and objectives of the Nation and adopts policies by which it will achieve them, the State is the primary but not the sole actor which will lead the Nation on the path to development and security. Interdependence, both internationally and domestically, is a reality. Linked to the West, by geography and history, but also by choice, Brazil has a role to play in its defense. Conversely, it is linked to it economically. The models, markets, technologies and capital that the nation

needs for its development are available from the industrialized Western nations. Though Brazil must struggle to maintain its sovereignty, to be able to eventually achieve full sovereignty it must develop. To develop, it must voluntarily limit its sovereignty in order to attract foreign and multi-national capital. According to the National Security Doctrine the State cannot abandon its sovereignty entirely and give free reign to foreign economic interests. It has a right and a duty to regulate such interests to some extent, to channel resources, and to assert its Nation's rights.

Domestically, in the framework of the neo-capitalist model deemed most appropriate for Brazilian development, the State has the responsibility to adopt a broad-based National Strategy, and to undertake the appropriate planning needed to implement the necessary development policies. But the entrepreneurial sector has a role to play as well. For its part, the State can stimulate investment and production in certain sectors, and may even control them in those most vital to National Security (e.g., energy, defense industries). However, it is also dependent upon the resources, skills and potential of the private sector, and must voluntarily restrict its own activity in order to allow the entrepreneurial sector to develop. Based on the National Strategies adopted, the State may legitimately offer incentives, subsidies, credit and other resources necessary to stimulate private sector activity in promising (or necessary) areas of the economy. According

to the doctrine, the State may chose to stimulate import substitution (a model with strong attractions to the formulators of the doctrine in the 1950s and 1960s), or may even assert itself more vigorously in more backward regions of the country where the private sector has not yet adequately developed. But the State cannot replace the private sector, nor can it be expected to perform as well (the Soviet system is often cited as a negative example in this regard). It is important to note that, far from this being a purely theoretical concern, from its founding the ESG included in its courses, and had among its lecturers, a great many representatives of the private, civilian sector, alongside military officers, in contrast to the French and U.S. models upon which the School was otherwise based.[89]

PART IV - SUMMARY

The National Security Doctrine was based on the geopolitical concept of the Nation as organic and unified. Its four essential features, or Expressions - political, economic, psycho-social and military - could be considered as distinct parts of the whole only for analytical purposes. In fact, each is inextricably linked to, dependent upon and influenced by the others. Especially in the context of an underdeveloped nation, such as Brazil, the need for Security and Development were inseparable. National Strategies must therefore be adopted by the State (as the 'head' of the

organism, as it were) to employ as well as to enhance National Power, in its various expressions, and to overcome Antagonisms and Pressures which stood in the way of development. The concepts of the Psycho-social Expression, as dealt with by the formulators of the National Security Doctrine, may be the most controversial, especially in light of the controversies surrounding the limiting of democratic rights and procedures, and the suppression of dissent and subversion, real and imagined, by the military regime which ruled Brazil for almost two decades. However, for the purposes of this exposition, the Economic Expression, as it concerns development and the role of the State in planning, may have received greater emphasis, as it is more germane to the subsequent development of Brazilian industry in general, and to that of the arms industry in particular.

Once the Brazilian military took power in 1964 many of its subsequent policies were influenced or molded by the concerns elaborated in the National Security Doctrine. Different elements of the doctrine were championed by various administrations and by factions within the military between 1964 and 1985. It will be asserted below that the hard-line faction based its economic and development policies based more on the corporate needs and ideology of the military than on the plan contained within the National Security Doctrine. Nevertheless, all officers had some exposure to the doctrine through the system of officer training schools. The military

administrations identified with each of the main two factions invoked the doctrine to justify their policies.

ENDNOTES - CHAPTER I: THE DEVELOPMENT OF GEOPOLITICAL
THOUGHT AND THE NATIONAL SECURITY DOCTRINE IN BRAZIL

1. See for example: Augosto Pinochet Ugarte, Geopolitica de Chile (Mexico City: El Cid Editor, 1978) pp. 45-64; Golbery de Couto e Silva, Aspectos Geopoliticos do Brasil ([Rio de Janeiro]: Biblioteca Do Exercito - Editora, 1957) pp. 18-29; Everardo Backheuser, Curso de Geopolitica Geral e do Brasil (Rio de Janeiro: Grafica Laemmert, Limitada, 1948) pp. 13-69; Andrew Gyorgy, Geopolitics: The New German Science (University of California Publications in International Relations, Vol. 3. Berkeley, Calif.: University of California Press, 1944) pp. 144-172.

2. Geoffrey Parker, Western Geopolitical Thought in the Twentieth Century (New York: St. Martin's Press, 1985) pp. 7-10; Martin Ira Glassner and Harm J. de Blij, Systematic Political Geography (New York: John Wiley & Sons, 1980) pp. 65-66.

3. Halford J. Mackinder, "The Geographical Pivot of History," Democratic Ideals and Reality: With Additional Papers, ed. Anthony J. Pearce (New York: W.W. Norton & Co., Inc., 1962) 242.

4. Friedrich Ratzel, The History of Mankind. Trans. A. J. Butler. Vol. I (London: Macmillan and Co., Ltd., 1896) pp. 129-141. See also Ratzel, "The Territorial Growth of States," Scottish Geographical Magazine. Vol. XII, No. 7 (July 1896) pp. 355.

5. Ratzel, "Territorial Growth," pp. 353-354.

6. Ratzel, Territorial Growth," p. 355.

7. Ratzel, "Territorial Growth," p. 356.

8. Ratzel, <u>History</u>, p. 26.

9. Ratzel, "Territorial Growth," pp.359-360.

10. Rudolf Kjellén, <u>Der Staat als Lebensform</u>. Trans. Margarethe Langfeldt (Leipzig: S. Hirzel Verlag, 1917), pp. 29-30.

11. Glassner and de Blij's translation of <u>herrschaftspolitik</u>. It might also be rendered as "the politics of the regime." Glassner and de Blij, <u>Systematic Political Geography</u>, p. 264.

12. Kjellén, <u>Der Staat</u>, p. 43.

13. Kjellén, <u>Der Staat</u>, p. 53. [Author's translation]

14. Kjellén, <u>Der Staat</u>, pp. 77-78. [Author's translation]

15. Kjellén, <u>Der Staat</u>, pp. 214-215.

16. Kjellén, <u>Der Staat</u>, p. 220. [Author's translation]

17. Alfred T. Mahan, <u>The Influence of Sea Power Upon History, 1660-1783</u>. 25th. ed. 1890. (Boston: Little, Brown, and Co., 1917), pp. 26-69.

18. Mahan, <u>Influence of Sea Power</u>, p. 35.

19. Mahan, <u>Influence of Sea Power</u>, p. 43.

20. Mahan, <u>Influence of Sea Power</u>, pp. 50-52.

21. Mahan, <u>Influence of Sea Power</u>, pp. 52-58.

22. An example of the importance of this work to the development of South American geopolitics is the fact that the Chilean geopolitician, general and head-of-state Augosto

Pinochet, who is clearly more drawn in the development of his own thought to Ratzel and especially to Kjellén, chose to reproduce Mackinder's essay in toto in Spanish translation, as the sole appendix to his book, Geopolitica. Pinochet, Geopolitica de Chile, pp. 229-245.

23. Parker, Western Geopolitical Thought, pp. 16-19.

24. Mackinder, "Geographical Pivot," pp. 255-264.

25. Halford J. Mackinder, Democratic Ideals and Reality: With Additional Papers. Ed. Anthony J. Pearce (New York: W.W. Norton & Co., Inc., 1962) p. 150.

26. Parker, Western Geopolitical Thought, pp. 22-26; Halford J. Mackinder, "The Round World and the Winning of the Peace," in Democratic Ideals and Reality: With Additional Papers. Ed. Anthony J.Pearce (New York: W.W. Norton & Co., Inc., 1962) pp. 271-273.

27. Mackinder, "Round World," pp. 272-273.

28. Mackinder, Democratic Ideals, p. 138.

29. Carlos H. Waisman, "Argentina: Economic and Political Implications," in James Everett Katz, ed., The Implications of Third World Industrialization (Lexington, Mass.: Lexington Books, 1986) pp. 96-98.

30. Hans W. Weigert, Generals and Geographers: The Twilight of Geopolitics (New York: Oxford University Press, 1942) pp. 8-10.

31. Antonio de Arruda, A Escola Superior de Guerra: Historia de sua Doutrina. 2d ed. (São Paulo: Edicões GRD, 1983) p. 284; Parker, Western Geopolitical Thought, pp. 58-60; Gyorgy, Geopolitics, pp. 179-186;; Weigert, Generals and Geographers, pp. 11-14.

32. Jack Child, Geopolitics and Conflict in South America: Quarrels Among Neighbors (New York: Praeger Publishers, 1985) pp. 22-23; Backheuser, Curso de Geopolitica Geral, p. 25.

33. João Cruz Costa, A History of Ideas in Brazil: The Development of Philosophy in Brazil and the Evolution of National History. Trans. Suzette Macedo (Berkeley: University of California Press, 1964) p. 24.

34. Mario Travassos, Projecão Continental do Brasil. 3rd ed. (São Paulo: Companhia Editora Nacional, 1938) p. 14. [Author's translation]

35. Travassos, Projecão Continental, pp. 97-107.

36. Travassos, Projecão Continental, p. 124.

37. Travassos, Projecão Continental, p. 103. [Author's translation]

38. Golbery de Couto e Silva, Aspectos Geopoliticos do Brasil ([Rio de Janeiro]: Biblioteca Do Exercito - Editora, 1957) p. 38. Golbery is quoting Frei Vicente do Salvador.

39. Travassos, Projecão Continental, pp. 109-110. [Author's translation]

40. Backheuser, Curso de Geopolitica Geral, p. 31.

41. Backheuser, Curso de Geopolitica Geral, pp. 59-69; also, Backheuser, "Geopolitica e Geografia Politica," Revista Brasileira de Geografia. Vol. IV, Nr. 1 (Jan.-Mar. 1942), pp. 27, 29-31.

42. Backheuser, Curso de Geopolitica Geral, p. 73. [Author's translation]

43. Backheuser, Curso de Geopolitica Geral, pp. 39, 69-78; Everardo Backheuser, Problemas do Brasil (Estructura Geopolitica: O Espaco) (Rio de Janeiro: Grupo Editor Omnia, 1933) pp. 109-124.

44. Backheuser, Curso de Geopolitica Geral, p. 156.

45. Backheuser, Curso de Geopolitica Geral, pp. 157-165.

46. Backheuser, Curso de Geopolitica Geral, p. 199.

47. Backheuser, Curso de Geopolitica Geral, pp. 263-264. [Author's translation]

48. Backheuser, Curso de Geopolitica Geral, p. 43.

49. Golbery, Aspectos, pp. 18-29.

50. Golbery, Aspectos, pp. 21-22.

51. Golbery, Aspectos, pp. 50-52.

52. Golbery do Couto e Silva, Geopolitica do Brasil. 2d ed. (Rio de Janeiro: Livraria Jose Olympio Editora, 1967) pp. 195-198.

53. Carlos de Meira Mattos, Brasil: Geopolitica e Destino (Rio de Janeiro: Livraria Jose Olympio, 1975) p. 3.

54. Carlos de Meira Mattos, "Segurança Nacional: Ideologia ou Necessidade Inerente ao Estado?" Politica e Estrategia. Vol. V No. 4 (Oct.-Dec. 1987) p. 75. [Author's translation]

55. J. Van Doorn, "Ideology and the Military," in Morris Janowitz and Jacques Van Doorn, eds., On Military Ideology (Rotterdam: Rotterdam University Press, 1971) p. xx.

56. Jorge A. Tapia Valdes, El Terrorismo de Estado: La Doctrina de la Seguridad Nacional en el Cono Sur (Mexico City: Editorial Nueva Imagen, 1980) pp. 43-65; Mike Burgess and Daniel Wolf, "The Concept of Power in the Brazilian Higher War College (ESG)" LARU Working Paper Nr. 27 (1979) p. 1.

57. Jose Comblin, Doctrina de Seguridad Nacional. 2 vols. (San Jose, Costa Rica: Editorial Nueva Decada, 1988) vol. 1, pp. 21, 29; Eliezer Rizzo de Oliveira, As Forcas

Armadas: Politica e Ideologia No Brasil (1964-1969) (Petropolis, Brazil: Vozes, 1976), pp. 24-25.

58. Arruda, Escola Superior de Guerra, pp. 274-284; Antonio Rengifo, "New Institutional Ideology in Latin American Military Coups: Brazil and Peru," Diss., Texas Christian University, 1979, pp. 39-59.

59. Arruda, Escola Superior de Guerra, pp. 274-275.

60. For example, see Juarez Tavora, Uma Politica de Desenvolvimento Para o Brasil (Rio de Janeiro: Livraria Jose Olympio Editora, 1962) p. 91.

61. Antonio Saturnino Braga, "Introducão ao Estudo da Segurança Nacional" Revista Brasileira de Estudos Politicos. Nr. 21 (July 1966) pp. 8-9. Tavora, Uma Politica de Desenvolvimento, p. 91.

62. Braga, "Introducão," p. 15. [Author's translation]

63. Braga, "Introducão," pp. 15-16.

64. Eduardo Dominguez de Oliveira, "Segurança Nacional - Conceitos Fundamentais" Revista Brasileira de Estudos Politicos. Nr. 21 (July 1966) pp. 97-98.

65. Braga, "Introducão," p. 20. [Author's translation]

66. Burgess and Wolf, "Concept of Power," pp. 4-5; Jose Alfredo Amaral Gurgel, Segurança e Democracia: Uma Reflexão Politica (Rio de Janeiro: Livraria Jose Olympio Editora, 1978) pp. 66-71; Braga, "Introducão," pp. 22-24.

67. Burgess and Wolf, "Concept of Power," pp. 4-5; Braga, "Introducão," p. 25; Eduardo Dominguez de Oliveira, Ismael da Mota Paes and Paulo Emilio Souto, "O Poder Nacional: Consideracões Gerais," Revista Brasileira de Estudos Politicos Nr. 21 (July 1966) pp. 120-122.

68. Antonio Saturnino Braga, Fernando Gonçalves Reis Vianna, Virgilio Pires de Sa and Alfredo de Almeida Paiva, "Elementos Politicos do Poder Nacional" Revista Brasileira de Estudos Politicos. Nr. 21 (July 1966) p. 140.

69. Antonio Saturnino Braga, Fernando Gonçalves Reis Vianna, Virgilio Pires de Sa and Alfredo de Almeida Paiva, "Elementos Politicos do Poder Nacional," Revista Brasileira de Estudos Politicos. Nr. 21 (July 1966) p. 137; see also Burgess and Wolf, "The Concept of Power," pp. 5, 12-15; Amaral Gurgel, Segurança e Democracia, pp. 66-80.

70. Arruda, Escola Superior de Guerra, pp. 266-268; Burgess and Wolf, "Concept of Power," pp. 15-16; Oliveira, As Forças Armadas, pp. 78-81; Tavora, Politica de Desenvolvimento, pp. 27-29.

71. Antonio Andrade de Araujo, Herick Marques Caminha, Eurico da Costa Carvalho and Omar Goncalves da Motta, "Elementos Economicos do Poder Nacional," Revista Brasileira de Estudos Politicos. Nr. 21 (July 1966) pp. 183-191; Andre Beaufre, La Guerra Revolucionaria: Las Nuevas Formas de la Guerra. Trans. Juan T. Goyret (Buenos Aires: Editorial Almena, 1979) p. 92.

72. Antonio Andrade de Araujo, Herick Marques Caminha, Eurico da Costa Carvalho and Omar Gonçalves da Motta, "Elementos Economicos do Poder Nacional" Revista Brasileira de Estudos Politicos. Nr. 21 (July 1966) p. 199. [Author's translation]

73. Burgess and Wolf, "Concept of Power," pp. 10-12.

74. Arruda, Escola Superior de Guerra, pp. 195-6. [Author's translation]

75. Arruda, Escola Superior de Guerra, pp. 200-202; Arruda et al, "Elementos Psicosociais," pp. 167, 175; Burgess and Wolf, "Concept of Power," pp. 5, 14.

76. Arruda et al, "Elementos Psicosociais," p. 167; Tavora, Politica de Desenvolvimento, pp. 25-28.

77. Braga, "Introducão," pp. 142-3.

78. Meira Mattos, "Segurança Nacional," pp. 580-583; Braga et al, "Elementos Psicosociais," pp. 142-143.

79. Arruda, Escola Superior de Guerra, pp. 48-51; Burgess and Wolf, "Concept of Power," pp. 12-15; Jose Britto da Silveira, Sylvio Caielli de Siqueira and Alzir Benjamin Chaloub, "Elementos Militares do Poder Nacional" Revista Brasileira de Estudos Politicos. Nr. 21 (July 1966) pp. 209-212.

80. Backheuser, Curso de Geopolitica Geral, pp. 56-58.

81. Burgess and Wolf, "Concept of Power," pp. 3, 18-19; Silveira, Siqueira and Chaloub, "Elementos Militares," pp. 209-213.

82. Arruda, Escola Superior de Guerra, pp. 57-68; Oliveira, "Segurança Nacional," p. 78.

83. Arruda, Escola Superior de Guerra, pp. 242-250; Amaral Gurgel, Segurança e Democracia, pp. 80-83; Caminha, Paes and Souto, "Estrategia Nacional," pp. 250-251.

84. Jose Comblin, El Poder Militar en America Latina (Salamanca, Spain: Ediciones Sigueme, 1978) pp. 168-175.

85. Amaral Gurgel, Segurança e Democracia, p. 58. [Author's translation]

86. Child, Geopolitics and Conflict, pp. 38-41.

87. Arruda, Escola Superior de Guerra, pp. 14-15; Amaral Gurgel, Segurança e Democracia, pp. 53-60.

88. Braga et al, "Elementos Politicos," pp. 138, 142-143; Tavora, Politica de Desenvolvimento, pp. 15-25.

89. Rengifo, "New Institutional Ideology," p. 46; Burgess and Wolf, "Concept of Power," p. 1; Caminha, Paes and Souto, "Estrategia Nacional," pp. 246-248.

CHAPTER II - MILITARY ROLES AND MILITARY IDEOLOGY

When the Brazilian military ousted civilian President João Goulart in 1964, it seemed to be playing the role of Moderating Power, which it had played or considered playing before. Most observers, whether in support of the ouster or critics of it, assumed that once Goulart and his chief backers were politically neutralized and the Armed Forces leadership was satisfied that there was no danger that the more destabilizing aspects of Goulart's populist policies would soon be reintroduced, that the military would turn the reins of government back to the civilian politicians.

However, this did not occur, to the surprise of everyone, including some of Goulart's bitterest civilian political enemies who had encouraged the coup. Not only did the military leadership not intend to turn the control of the government back to the civilians in the short term, but they ,seemed to have stepped into their new governing role with a far-reaching and elaborate ideology and well-formulated economic and social policies derived therefrom. Once these policies were implemented, Brazil experienced a period of unprecedented economic growth and industrial expansion, lasting from about 1967 to 1974. This period was proudly

referred to as the "Brazilian Economic Miracle." Until the world-wide oil shock of 1973 ushered in the trend of economic deceleration, many observers seemed to think that the Brazilian policies could serve as a model for other Latin American countries.

Among the military regime's accomplishments was the phenomenal growth of the Brazilian arms industry. Since the late 1800s, the armed forces launched initiatives in order to found a domestic arms industry, primarily in order to achieve some measure of independence from foreign arms suppliers. These efforts met with, at best, very limited success. Even with some of the more impressive gains made in this area under Getúlio Vargas' Estado Novo (1937-1945), the domestic arms industry was hardly able to begin competing with foreign suppliers. Yet after 1964, under the military government, not only did the development of the Brazilian arms industry succeed by almost any criteria, it also played a central role in the success of the general industrialization policies of the government. Furthermore, by the mid-1980s, Brazil had emerged as the leading exporter of arms among Third World arms producers.

On the surface of it, few people would find it particularly surprising that the long sought after domestic arms industry would be finally and firmly established under a military-controlled regime. But such a simply stated assertion begs any number of questions, whose answers are apt to give a much more complex and useful picture of the

motivations, interests and ideology of the military, and how these have affected the course of industrial and economic development in Brazil. Many scholars concerned with explaining the policies of the Brazilian military when in power (whether defending the regime or critical of it) attribute great explanatory power to the military's highly developed ideology, the National Security Doctrine.[1] The themes of the National Security Doctrine as they can clearly be seen in many policies adopted by the military regime, especially when presided over by those generals who had a direct hand in the ideology's development and dissemination, make it imperative that some familiarity with the Doctrine be brought to an analysis of the regime.

However, a strong case can be made for a theoretical approach which explains not only the development of the Brazilian arms industry, but the broader economic policies of the military government in terms of the corporate ideology of the military. Such a theory would explain the policies of the regime in terms of the armed forces' interests as a political actor and professional class, as well as in terms of its own self-image and sense of mission. Such an ideology is more general and descriptive, and perhaps more difficult to analyze than a fully articulated, prescriptive ideology like the National Security Doctrine. But not only might it provide a more convincing explanation for the policies which led to the development of the arms industry, but it could show the extent to which the National Security Doctrine is merely a reflection

of the Brazilian military's corporate ideology, rather than a persuasive, scientifically-grounded ideological blueprint for successful industrialization, suitable for adoption in other Third World countries.

This chapter will describe the essential elements of the Brazilian military's corporate ideology. This will include a discussion of characteristics and world-views common to most officer corps, as well as aspects of the military's role which are unique in Third World countries. A discussion of the Brazilian military's corporate ideology must also include an account of the evolution of the military's political role in Brazilian society. In discussing the post-World War II period, the National Security Doctrine will be seen to be a central element in one of the two contending ideological trends among Brazilian officers (the other being a leftist-nationalist trend). Illuminating the reasons behind the ascendancy of the advocates of the former will hopefully help to resolve at least some of the questions concerning the relation of the Doctrine to the corporate interests of the military.

PART I - ON THE CORPORATE IDEOLOGY OF THE MILITARY

The corporate ideology of the military (or indeed of any social or professional grouping) is best conceived as a complex and pervasive set of attitudes. In his introduction to On Military Ideology, Jacques Van Doorn writes:

Coherent and explicitly worked out ideologies are
exceptional. It is much more common for the ideological
distortion of perception resulting from threat, conflict
or frustration to serve the need for solidarity, and
justify action which has aroused criticism. These
conditions are typical of the military and their
missions....[2]

It is not uncommon to speak of the corporate interests

of the military. Since it is an institution charged with the

responsibility to defend the nation, its leaders have to

assure that the armed forces have the quantity and quality of

personnel and materiel to fulfill their duty adequately. But

it also has to compete for scarce public resources with other

institutions in the polity. Like other institutions it will

make certain claims about the priority of its needs in

relation to those of its competitors. In addition, it must

seek to satisfy its own personnel's demands for adequate pay,

job security, professional advancement, social status and

respect.

The corporate ideology of the military is a product of

the military system. It is a world-view which is not

explicitly articulated, but it does strongly influence the

political views and actions of officers. Elements of this

corporate ideology include the glorification of the past

achievements of the armed forces; interpretation of military

values into norms thought to be applicable to society as a

whole; and a justification of the corporate interests of the

military.

It is not to be expected that any military organization
should be modest about its past and present merits.
Organizational pride of the national forces is

inseparable, of course, from national pride and patriotism. The backbone of military ideology is, however... adherence to the military system itself, to its hierarchy and institutional integrity and well-being.... [T]he greatest driving force of military politics is the self-interest of the organization, both materially (pay, benefits and so on), and organizationally (fear of competition or of threats to the hierarchy).

One feature of modern military institutions that has received much attention is the growth of professionalism in the officer corps. Until the end of the 18th century, the officer corps of European armies was the preserve of the aristocracy. With the industrial revolution, the conduct of war became more dependent on technology, and increasingly the military art depended on officers trained in engineering and mathematics, as well as in organizational and managerial skills. This need for specially trained officers, combined with pressures from the increasingly influential middle classes, eventually ended the hold of the aristocracy on the officer corps. Technological progress not only contributed to the change in the social composition of the military, but the new style military's attempts to harness new technologies often put the officers themselves in the forefront of industrial and scientific innovation. The military now had a stake in furthering industrialization. Though South American armed forces understandably lagged behind, the influence of Prussian and French military ideas left their mark in this region. By the end of the 19th century South American officers felt the need to adopt a more scientific orientation. Of course, what was missing in most South American societies

was an industrial base to support the development of European-style armies.[4]

In addition to the self-image the military maintained as the defender of the nation, it took on the special status and interests of other professions. As a professional group, officers sought to protect their autonomy. That is, though they were formally at the service of the state, they asserted their right as experts in an increasingly complex enterprise to be the arbiters of the security needs of the country. Unlike most other professions, the importance of the military to the survival of the society as a whole gave them unique political influence. Like other professionals, such as lawyers and physicians, they assumed that outsiders had limited competence to judge military and security matters.

> It is natural that professionals be committed to what they consider to be the 'right' utilization of the resources of their profession, to use such resources in ways approved of by the profession itself. Opposition to professional solutions are likely to be regarded by the members as illegitimate attempts at limiting professional independence.... The professional independence of the military acquires special significance because of the size of the military economy, the scope of the military organization, and the annihilation that will follow if the full resources of the military establishments come into use.[5]

This professionalization of the military gives a special dimension to the corporate ideology of the armed forces. Van Doorn distinguishes between latent and manifest ideologies.[6] The former category, which would include the corporate ideology of the military, include those general ideological or philosophical proclivities which color the political views of

the actor in question. Though they are not expressed in an articulated form, they may help to explain why that actor could be attracted to a fully articulated, or manifest, ideology (of which the National Security Doctrine, Marxism, and fascism would be examples). Those elements of the military ethos which tend to make up its latent ideology include nationalism, conservativism, and aspects of the professional self-image of officers.

Citing nationalism as a common value among officers rarely invites dispute. The defense of the nation is the raison d'etre of the armed forces, and those charged with this duty understandably champion the nation, its traditions and values (as they interpret them). This nationalism is not always of a conservative or a reactionary sort. It is certainly not unheard of for officers to adopt leftist versions of nationalist ideologies, for example.

This last observation notwithstanding, it seems to be the case that officers tend to be more conservative in their political and social views than other sectors of society. This phenomenon stems from two primary sources. The first is the preference of the military for the maintenance of the political status quo or, at least, of social stability. This preference is rooted in the armed forces' duty to defend society, as well as in the corporate interest of the modern military, since it relies more and more on long-range planning. The second source derives from values which are

uniquely military, but which come to be universalized in the eyes of the professional officer.

> The military ethic emphasizes the permanence, irrationality, weakness, and evil in human nature. It stresses the supremacy of society over the individual and the importance of order, hierarchy, and division of function. It stresses the continuity and value of history. It accepts the nation-state as the highest form of political organization and recognizes the continuing likelihood of wars among nation-states. It emphasizes the importance of power in international relations and warns of the dangers to state security. It holds that the security of the state depends upon the creation and maintenance of strong military forces.... It exalts obedience as the highest virtue of military men. The military ethic is thus pessimistic... historically inclined, power-oriented, nationalistic, militaristic.... It is, in brief, realistic and conservative.[7]

Even in those cases where the armed forces played a role in a revolutionary struggle, once the new regime is established the military institution tends to be quite defensive of the new situation, re-establishing a stake in stability and order. While some military organizations in the Third World will continue to be identified with revolutionary ideologies, their actions and policies may cast doubts upon their unflinching devotion to the cause.

> If they genuinely hold revolutionary aspirations, their aspirations frequently clash with their corporate orientation, which overwhelms all other beliefs. And if corporatism does not diminish the commitment to progressive ideals, then the pressing problems of day-to-day government will, and over time only the rhetoric remains.[8]

It would seem that explaining officers' conservative views in terms of the professionalization of modern military organizations is more persuasive than other explanations traditionally offered. The suggestion that the views of the

officer corps could be explained in terms of the social class origins from which it is recruited does have some validity. This could explain such things as the preference for a merit-based, rather than social status-based recruitment and advancement, or the interest in technological and industrial progress while maintaining the political status quo. Professionalization has also meant a higher level of education among officers, with continuing advanced study often being a prerequisite for receiving promotions. Yet, while in general higher levels of education are usually correlated with more liberal attitudes, the views of military elites retain a higher correlation with conservative views relative to other educated classes in society.[9]

While there is relatively little disagreement among social scientists that professionalization of the modern army has affected the general outlook of officers, there has been considerable debate about whether or not this phenomenon contributes to the propensity of the military to intervene in politics. This debate is more than merely academic, since those who advocated the positive, stabilizing effects of the military exerted a profound influence on the formulation of U.S. policy towards the Third World (especially Latin America) in the 1950s and 1960s.[10]

Following Samuel P. Huntington, some social scientists argued that the increasing professionalization of the military would tend, over time, to make the military more apolitical, and less inclined to want to intervene directly in politics or

to resist civilian control over the military. This view was based in part on the assumption that as the military art became more technical and esoteric, officers would cultivate interest and expertise in areas that would be less transferable to governmental activity. Military professionalization is expected to decrease officers' interest in political and governmental affairs, except those that relate directly to military matters.[11]

Others, following the military sociologist Morris Janowitz, took the opposite view. These observers argued that the professional army was evolving into a society within a society, and the officer corps replicated (to a degree) the bureaucratic and managerial needs of government. This, coupled with the corporate needs of the military, would tend to create the attitude that the military could do government-type jobs better, and that, dealing with the very security of the state, their needs deserved priority. Such observers felt that in advanced industrial nations, the military would exert tremendous political pressure in the system, through lobbying, co-optation of politicians, and the sheer economic weight of this sector. The fact that its power is not manifested in overt use of force does not make it negligible. In less developed nations, the likelihood of actual military intervention is greater in part because other political institutions are comparatively weaker and the threat of instability (anathema to the military) is greater.[12]

Concerning the possible role of the armed forces in the development of Third World political systems and economies, those scholars who followed Huntington's line of reasoning felt that in these less-developed countries, the military was the only group with the organization, discipline, technical and managerial skills that were needed. In new nations characterized by weak central governments, beset by centrifugal social forces such as competing ethnic, tribal, regional or class interests, low levels of education (even among government workers), the military's own unity, its unifying position (drawing recruits from all groups in the state, and being stationed throughout the country), the generally higher educational level and technical proficiency of the officer corps, were seen as capable of providing a foundation for the new states.

Of course, these experts were aware of the struggles between civilian and military groups in establishing power and stability. But it was felt that when the military was actually employed in building roads and bridges, in educational projects, expanding health care (policies which became known as "Civic Action,"[13]) aside from contributing to the well-being of the country, it would also increase respect for the centralized government (of which the armed forces were presumed to be representatives). It was also felt that lack of progress in the fight against poverty, economic backwardness and social disparities would give subversive movements ample political ammunition. It would have the

additional virtue, in the eyes of the civilian advocates of civic action, of diverting the energies and resources of the military away from political involvement, and possible military intervention in the civilian political sphere.

Many of these theories became discredited as stability and development continued to elude many Third World countries. The armed forces often appeared to be major contributors to instability or civil strife rather than guarantors of stability and progress. Even as the advocates of such theories began to take into account the differences between the economic and social problems of Latin America and other regions of the Third World, the hopes that the relatively advanced state of Latin American polities would continue progressing towards democracy were dashed. While Latin American militaries did have corporate and ideological interests in expanding the infrastructure and in encouraging industrialization and economic expansion, they were often impatient with the social unrest which accompanied them. With the mission of "external defense" largely, but not wholly, inapplicable on the Latin American scene, the military began to concentrate on "internal defense," fighting domestic subversive groups and guerrillas. This latter task was soon to become its primary one.

These predictions that the armed forces would become progressively disinterested in intervening in political affairs were discredited as military interventions continued to occur throughout Latin America in the late 1950s and 1960s.

Most of these interventions followed a familiar pattern whereby the armed forces would step in to remove political leaders who had become unpopular, inefficient, and overly ambitious, or who threatened military prerogatives. Such interventions were often undertaken with the encouragement of civilian actors, some of whom would thereafter expect to be given the reins of government. This pattern persisted despite the expectations of North American policy-makers who had been hoping to nudge their Latin American allies towards adopting more democratic practices.[14] In most of these cases, even as the military organizations felt that they had a right, duty or need to intervene, they were rarely inclined to take over governing tasks themselves for long. This was generally the case until the Brazilian coup of 1964 which ushered in an entirely new pattern of military intervention. Essential components of this new pattern of intervention, as seen in the Brazilian case, included this new image which the Brazilian military had of its role in society. They also included the articulated manifest ideology contained in the National Security Doctrine, espoused by key high-ranking officers, including the first president of the military government, General Humberto Castello Branco.

PART II - THE EVOLUTION OF THE CORPORATE IDEOLOGY OF THE
          BRAZILIAN ARMED FORCES

The role which the armed forces have been expected to play in Brazilian society has always been in dispute. For various reasons there have often been tensions between civilian political leaders and the military over the latter's appropriate functions, and the resulting political struggles have been almost as critical to the military's self-image as have the actual military campaigns that the armed forces have been engaged in. Technological, scientific and economic changes have influenced the formation of the Brazilian military's ideas of its proper function, as have various ideologies which have found adherents among the members of the officer corps at different times.

While most of Brazil's leaders have expressed the conviction that Brazil has the potential to become a world power, this conviction colored the ideas of the military in unique ways. The needs for expanding and improving the nation's infrastructure and for industrial development would certainly be important for achieving Brazilian greatness in which the military clearly would like to play its patriotic role. But it would also be important for achieving specifically military goals, such as facilitating rapid deployment of troops throughout the country or establishing the basis for a munitions industry.

It is not enough to explain the armed forces' political actions solely in terms of narrow military interests, if only because, even in the eyes of the military, the well-being of the nation is one of its primary interests. The following

section will examine the formulation of the military's role in Brazilian society, the development of its self-image and sense of mission, its professionalization, and its own view of Brazilian grandeza; in short, its corporate ideology. If one wants to argue that the influence of the National Security Doctrine was decisive in leading to the Brazilian economic miracle and the development of the arms industry, one needs to be familiar with the latent ideology of the Brazilian military. To the extent that one might claim that the policies derived from the National Security Doctrine are responsible for the successful industrialization of the Brazilian economy, one would have to show how these policies had gone beyond the more narrow ones derived from the corporate interests of the military, in terms of goals, areas affected, and support from non-military groups. Conversely, should one argue that the National Security Doctrine is no more than an elaborate façade covering the goals initiated by a military regime for its own needs (and those of specific classes allied with it), then one has to account for the apparently universal scope of the Doctrine and policies derived from it.

Far from being apolitical, from the period of the Wars of Independence from Spain, South American armies were often directly involved in the political life of these new states. Though the form of civil-military relations evolved through relatively distinct phases, the question of the precise role that the armed forces would play in politics was never

resolved. Indeed, many areas of Spanish America suffered through periods of political fragmentation. Many of the soldiers and officers who had fought so successfully against the Spanish turned to banditry or fell in behind charismatic local leaders (often former officers) as these <u>caudillos</u> carved out their spheres of control.[15]

Brazil was spared the traumatic fragmentation and anarchy which plagued much of Spanish America in the years following independence. Brazil's break with Portugal was not only unaccompanied by war but political continuity and stability was assured as Dom Pedro I assumed the role of monarch, keeping the governmental structure intact. Though regionalist sentiments remained strong and though the rural areas of the country were often in the hands of the Brazilian version of <u>caudillos</u>, called <u>coroneis</u> (colonels), the unity of the country was maintained. Nevertheless, the military institution in Brazil had to struggle to claim what its officers felt should be its proper role. This struggle was primarily a political one, crucial to the development of the armed forces' corporate self-image.

The military saw itself as essential to the independence of Brazil. The roots to this conception go back to the revolt of the Pernambucans against the Dutch who had temporarily wrested control of that northeastern region of Brazil from the Portuguese in 1624. Without the aid of imperial forces, the local militia was able to drive out the Dutch by 1654. In part, this served to create the mistrust which the

peninsulares (Iberian-born officers) in the higher echelons of the colonial army bore for the crioulos, or native-born officers. This revolt gave the crioulos the sense that Brazil had been saved by Brazilians, not by Portuguese. As it turnED out, the Court at Lisbon was not exactly elated at the expulsion of the Dutch from this northeastern salient of their American colony, as they were hoping to use the area to negotiate for Dutch support in Portugal's struggle with Spain.[16]

After the expulsion of the Dutch, the Portuguese began to give more attention to the formal army in their American colony. The success of the Pernambucans had made Lisbon suspicious of the locally organized militia forces. Ironically, this concentration on the armed forces in order to politically weaken local militias in the wake of the Pernambuco episode foreshadowed later policies of civilian governments which would try to check the power of the military by strengthening state militias. Though the Brazilian armed forces would hark back to the patriotic struggle of 1654 to establish its role as guarantors of Brazilian independence, the same militia organizations which had actually expelled the Dutch would become its political rivals.[17]

At the outset of the 18th century, there was little distinction between the military establishment in Brazil and civilian society. Formally, the standing officer corps and the full-time paid soldiers (the latter often few in number and drawn from the dregs of society) were meant to be

integrated with the regional militias in time of emergency. Both the Court at Lisbon and the officer corps resented the fact that in reality the militias tended to serve local politicians. In 1699 a Royal Decree was issued to restructure the armed forces in Brazil. Officers were given technical training by European experts, and in return provided rudimentary education to recruits. The standing army acquired more effective control over the militias by making regular officers responsible for military training. The progressive integration of the militias into the armed forces continued throughout the 18th century.[18]

The events leading up to the independence of Brazil from Portugal were set in motion by the removal of the Court of Dom João IV from Lisbon to Rio de Janeiro in 1807, with British encouragement and escort, to escape the clutches of Napoleon. When the danger had passed and the king returned to Lisbon, he left his son, Crown Prince Pedro, behind. Belatedly, Dom João IV decided to call his son back to Portugal, perhaps fearing that the metropole was losing its grip on the colony. Dom Pedro's refusal to return precipitated Brazil's sudden thrust to independence in 1822.

The role of the military in achieving Brazil's independence was political rather than military. The highest ranking officers in the Imperial Army located in Brazil were peninsulares. In the years before the break with Portugal attempts were made to gain acceptance for native-born Brazilians of the landed aristocracy to enter into the highest

ranks of the officer corps, but these were successfully resisted. The predominantly crioulo middle-level officers, partly due to the frustration engendered by this discrimination, tended to take interest in republican ideas and in calls for independence. They supported Dom Pedro's refusal to return to his father's Court, despite their republican proclivities, rallied around the new Emperor of an independent Brazil.[19]

Military support for Pedro I did not last long. Despite his heroic move against Lisbon, the Emperor still favored the peninsulares who had chosen to remain in Brazil after the break. This favoritism began to alienate Pedro's native-born supporters, civilian and military alike. However, there was also a growing rift between the civilian elites and the armed forces.

In spite of the role the crioulo officers played in achieving Brazil's independence and establishing the Empire, and in spite of the tension between them and the peninsulares, the civilian elites of Brazil were highly suspicious of the entire military institution. This was due partly to the civilians' perceptions of the peninsulares' control of the military, and also to their republican sentiments which made them distrust the officers. Thus the civilian political elites tended to follow what Edmundo Campos Coelho has called a "policy of extinction" towards the military.[20] The primary tool of this policy was the creation of a rival civil militia, established in each state and placed under the command of the

state governor. Not only did the army and navy have to compete for funding, but in many states the militias were often much larger than the local army units. Furthermore, in keeping with their task of defending Brazil against possible external attack, most army units were placed in remote frontier regions. This also left the political field open for the militias, which guarded the principal towns.[21]

After the War with Paraguay (1865-1870), the military began to assert itself politically. After having won the war, in spite of having been poorly prepared due to the negligence of civilian politicians, the officers felt that they had proven their worth to the nation and should be treated with greater respect (and with a continuation of appreciably higher levels of expenditures for the armed forces).

In the period between the end of the Paraguayan War and the overthrow of the monarchy in 1889, a combination of growing concern with professionalism, an increase in political and ideological interests, and tensions between the civil and military elites brought about a change in the self-image of the armed forces.

> [The war] also contributed to fostering within the military class a sense of national mission - a conviction that the military had been destined to save its country from the evils of inept, unpatriotic civilian leadership. The 'middle generation' of military leaders...based its conviction of patriotic superiority upon its having passed through the fiery ordeal of war. Then there was a group of military ideologists, mainly instructors in the military academy, who ... found in Positivism a rationale which indicated that the preparation military men received was superior to that received by their civilian counterparts because military education stressed science

while the civilian one was more ornamental with its emphasis on law and philosophy.[22]

The rise of the professionalization of the officer class coincided with the popularization of Comtean Positivism among middle- and junior-level officers. The activities of the remarkable Colonel Benjamin Constant resulted both in a dramatic increase in the technical and scientific training of younger officers, the dissemination of Positivist and republican ideas, and an overall more politically vocal attitude of the officer corps. Officers of all ranks were still fuming about the neglect and disrespect that the government continued to show towards the armed forces. This increased as the army was increasingly called upon to perform such tasks as chasing fugitive slaves or attacking quilombos (remote settlements of runaway slaves), tasks which these men found distasteful, and otherwise inappropriate for the military.

Some of the more vocally political officers had called for the creation of a military political party, though this effort got little support and was quashed by the generals. But attempts were made throughout this period to establish organizations through which officers could tend to the specific needs of the military. The first such organization was the Naval Club, founded in 1884. Though more focused on social and recreational needs of naval officers, its establishment created an important precedent. In 1887, the Military Club was established for army officers. This club

provided a forum for the debate of political issues. While all political factions were represented in the club, the dominant group at any given time would set the overall tone of the organization. The club would come to exert significant political influence not only during the establishment of the First Republic, but would continue to do so until the early days of the post-1964 military regime. At the time of its founding, the majority sentiment among Military Club members was abolitionist and republican.[23]

Civilian liberals and abolitionists, who were also growing impatient with the slow rate of reforms, and who felt the time had come to replace the monarchy with a true republic, were agitating among the officers, urging them to action. Monarchist politicians and officers, becoming fearful of the recent organization of officers and the growing advocacy of republican positions among the younger officers, began to complain. Meeting on November 9, 1889, partly in response to alleged monarchist attempts to weaken the military, the decision was taken by republican officers to move against the Emperor. On November 15 the military stepped in, forcing Dom Pedro II to abdicate.

> The aged Emperor sailed into European exile, leaving the new republic in the hands of the military. The military also fell heir to the Emperor's role as the unifying force in the country; indeed, at the time, it was the only institution that was national in scope and prepared to play such a role. The officers took their new assignment seriously; it would prove impossible thereafter to divest them of it. They kept direct control of the government until 1894, then they turned over the presidency to a civilian and retired to the wings, from which they studiously observed and occasionally prompted.

They noted with pleasure the increase in nationalism under the republic.[24]

In Brazil, the term poder moderador was first used to refer to the role of the Emperor in domestic politics. Through his ability to dismiss the Prime Minister and his cabinet, or dissolve the parliament, the Emperor was able to extract the government from any impasse it may have stumbled into, or otherwise resolve crises or dismiss leaders suspected of unseemly corruption. Dom Pedro II, who was thought to have pro-republican sentiments while believing that Brazilian politics had not yet matured to the point where it could do without him, has been described as appointing and dismissing governments in order to assure that the leading parties all gained experience in the running of government affairs. Though this theory of the "Moderating Power" is one which contemporary political leaders would almost certainly have derided, it nevertheless emphasized the role which the Brazilian monarch played.[25]

After the fall of the monarchy and the establishment of the Republic, it was not simply a matter of inviting the military to act as the new poder moderador, however this role was modified. The various Brazilian constitutions adopted since 1889 (with the exception of that which accompanied the Estado Novo) all stipulated that the armed forces were expected to obey the president of the republic "within the limits of the law" (a controversial phrase which could provide the justification for later interventions). However, the

notion of the military as being charged with the erstwhile
imperial function of being the "moderating power" was never
formally given to them.

Furthermore, the development of this very idea that the
Brazilian armed forces would legally be expected to play such
a role was of much later vintage.

> Contrary to what the political and sociological
> literature suggests, there was no clear notion of the
> 'moderating function' in this period.... In this respect,
> the fact that all groups interested in the political
> action of the military... had used the idea, at one time
> or another to instigate, justify or condemn
> interventions, shows that the concept was open to the
> most contradictory interpretations, in the service of the
> most diverse interests. That the concept of the
> 'moderating function' has such an elastic content shows
> in its radical ambiguity its exact political utility. Or
> rather the military interventions, inspired by whatever
> faction or reason, are, by definition, executing the
> 'moderating function'....[26]

In referring to its own mission and responsibilities,
the military did not employ the concept until the mid-1920s,
and only on a regular basis in the post-World War II period.
But whether justified by an appeal to the army's role as a
"moderating power" or by other reasons, in the cases where the
military intervened to turn out a particular administration
(including the 1964 coup) one could always find civilian
elements prodding the military to intervene, usually accusing
the president of acting illegally, thereby justifying
disobedience by the army.

With the establishment of the republic new trends took
root. Officers became more involved in political matters, but
the military itself began to fragment due in part to internal

dissension. Along with differences in political orientations, there was tension between the older, more traditional higher-ranking officers and the cientificos, the younger, scientifically and professionally oriented ones. While the republican civilian political leaders had courted the military in their successful attempt to oust the Emperor, they clearly feared the political involvement of the military (as both un-republican and as prejudicial to their own powers), and sought to get the military back into the barracks. Civilian leaders practiced what Campos Coelho calls "the politics of praise" (politica lauditoria), formalizing the new role and status of the military in return for military acceptance of its subordination to the civilian government. As internal conflicts continued to weaken the unity of the armed forces, civilian politicians actively sought to co-opt the less politically conscious traditional officers.[27]

In the period before World War I Brazilian officers were influenced by the German army. Groups of junior officers were periodically sent to Germany for short terms of duty, observing and training under German officers. As these junior officers returned, they redoubled their calls for increasing the professional and scientific level of Brazilian forces. Tensions between the top brass and the "Young Turks," as these junior officers were called, increased.

This period also witnessed a public debate among civilians as to the role of the army in Brazilian society, as part of a growing Brazilian nationalist movement. Some of the

more flamboyant nationalists, such as the poet Olavo Bilac, began to expound on the nation-building task of the military, which could serve as the means to bring Brazilians of all regions together in service to their nation while deepening their sense of Brazilian identity. Others of a more practical bent warned against the dangers of a strong military to the republican ideals of the nation. In fact, regionalism was on the rise even as public figures extolled the virtues of nationalism. In contrast to the centralizing trends initiated in the 18th century, the first decades of the republic saw a growth in the strength of the state militias.[28]

With the new scientific and professional outlooks taking root among the junior officers because of their increased exposure to European military training and doctrines, the gap between the sort of warfare for which the Brazilian soldiers were training, and the actual backward level of materiel with which they were equipped, became a source of frustration and embarrassment. The more traditional senior officers rarely questioned whether something ought to be done about the fact that nearly all of Brazil's arms and military equipment were imported from abroad. Following the Paraguayan War, the army had founded its first arsenals for the manufacture of gunpowder and cartridges. Aside from this, the army had only a few facilities for making minor repairs for its small arms. Even basic military materiel that were, or could, be manufactured domestically were more expensive, and far inferior to that which was imported from Europe.[29]

Just before the outbreak of the First World War, Brazil had ordered cannons and machine guns from Germany. But due to the outbreak of hostilities, they were never delivered. Brazil later decided to join the Allied war effort, partly in hopes of receiving war materiel from the allies, and thereupon sought to expand its standing army, but it could not adequately outfit its new recruits. The domestic economy did not have the wherewithal to produce the necessary equipment and foreign suppliers in Europe and the U.S. were producing only for their own war efforts. The Great War taught Brazil's military a not very surprising lesson: that Brazil should supply its own army and lessen its dependence on foreign sources. As a first step (and for some time the only step) in this direction, the army created its own Ordnance Department in order to coordinate its arsenals and factories. In 1919 the government formally endorsed the military's goals of seeking independence through development of industry, and especially emphasized the need to develop iron and steel industries. However, little beyond the making of formal declarations was accomplished until Getúlio Vargas' regime in the 1930s. This only added to the impatience of the younger officers with civilian politicians.[30]

The technical innovations in warfare which came out of World War I redoubled the interest among Brazilian officers in scientific studies and technical advances, though now they now turned to the French for military training. The growing agitation among officers for industrialization policies was

worriseome to the civilian political leadership, which already was shaken by sporadic political incidents instigated by military radicals in remote states.[31] One heard in Brazil for the first time civilian leaders expressing support for programs to enhance the professional goals of the armed forces. These were necessarily linked to declarations (based on nervous hopes) that aside from improving Brazil's security, such professionalization would make the officer corps more apolitical.

> The acceptance of the program for the professionalization of the military did not match the expectations which prompted them. More precisely, the supposition that neutrality or apolitical attitudes were an indispensable condition for professional improvement were disproved.... On the contrary, [the officers learned] that political abstention almost always led to the subordination of the military by civil elites and the lack of compensation in terms of higher levels of modernization and professionalization.... Conversely, political involvement might not raise the level of professionalism, but it never failed to pay dividends in terms of power.[32]

Due to their frustrations with the traditional leadership of the senior officers, with the social and political status of the military in Brazilian society, and by the arrogance and ineptitude of the civilian government, junior officers became increasingly agitated and rebellious in the immediate post-war period. In 1922, the first of the revolts of the tenentes (junior officers, specifically lieutenants) occurred in Rio de Janeiro. Though quickly put down, the frustration continued. In 1924, a second revolt broke out in São Paulo. It was sparked in part by resentment over the way that the original rebels had been punished for

their mutiny, but the beginnings of broader social and political concerns was evident.

> The rebels' formal manifestos were vague, emphasizing the need for fair elections and honest government, along with attention to the nation's social needs. A more immediate complaint focused on professional concerns - anachronistic training, obsolete weapons, unresponsiveness from civilian governments, and poor prospects for promotion. This frustration was reminiscent of the late Empire, when army officers had both professional and intellectual reasons for supporting a coup against the crown.[33]

After the revolt in São Paulo, several hundred tenentes fled to the interior and trekked throughout the more remote backwaters of the country for over two years as the "Prestes Column." They experienced first hand the backwardness and misery that reigned outside of the urbanized areas. This experience heightened the social and political consciousness of these officers, reinforcing their dedication to the economic and political development of their nation. The leader of the column, Luis Carlos Prestes, would later become the leader of the Brazilian Communists. However, most of the other veterans of the "Prestes Column," while remaining committed to far-reaching social, economic and political change, eschewed the solutions of the left, many flirting with dynamic right-wing ideologies, including fascism. Many of these tenentes would become supporters of Vargas and the Estado Novo and would continue to rise in the ranks of the military.[34]

The revolt which catapulted Getúlio Vargas into power in 1930 was not, however, a result of social unrest or

ideological ferment. It was a result of the abuse of the prevailing unofficial rules of the political elites based on a balance of power between the ruling groups of the dominant states of Brazil. Since the turn of the century, the presidency had rotated between candidates from the two most powerful states of São Paulo and Minas Gerais, or candidates from other state machines allied to or agreed upon by the political leaders of the two giants. (Because São Paulo derived its wealth from coffee plantations and Minas Gerais derived its in part from its dairy industry, the system was popularly called "cafe com leite", or "coffee with milk.") In the election of 1930, Vargas, of the state Rio Grande do Sul, ran against a candidate hand-picked by President Washington Luis of the São Paulo machine. It seemed evident to most that Vargas had won, but Luis saw to it that his candidate, Julio Prestes, also from São Paulo, was declared the victor. There was a public outcry against the fraud, heightened perhaps by the unpopularity of Luis and uncertainty fueled by the onset of the Depression. The traditional senior officers, especially those from Vargas' home state, where the powerful Third Army was based, sought support from outraged political leaders who feared domination by the São Paulo political machine. With this backing, the army moved against Luis and Prestes, and installed Vargas as the legitimate President.[35]

However, it soon became clear that Vargas' presidency represented a departure from the patterns of politics in Brazil since 1889. Many of his new programs coincided with

the political goals of the junior and middle-ranking officers. Vargas sought to weaken the power of state governments (along with their political machines and militias), to increase and centralize the powers of the federal government, and to give a more active role to government in economic and social spheres. He clearly courted the military as an institution by increasing the budget for the armed forces at the expense of the militias. Vargas also courted the younger officers specifically.

Many of the veterans of the tenente revolts (who continued to be referred to as tenentes even after they had been promoted or retired from the service) formed their own political club, the Third of October Club. The idealistic younger officers dominated the club at first (though it would eventually be controlled by civilians), and through it became very influential at the outset of the Vargas regime. As some members of Vargas' original coalition began to get suspicious of the president's audacious programs, and of his personal ambitions, the tenentes of the Third of October Club provided him with vocal political support. While advocating some weak democratic political reforms, the tenentes favored a strong presidency, centralization of government powers, and ambitious economic measures, including the nationalization of vital industries. While adopting a more authoritarian political approach with corporatist overtones, many tenentes still advocated progressive social programs.

As Vargas moved forward with his new programs, politicians who favored the traditional political arrangements -- which the new president was challenging -- became alarmed. Politicians in São Paulo, backed by the best equipped state militia in the country, revolted in 1932 and managed to hold out against federal troops for several months. The revolt was finally crushed, seriously undermining the opposition to Vargas' centralizing plans. The prominent role of the tenentes in the defeat of the rebels added to their importance.

> The tenentes had succeeded in converting the 1930 regionalist revolt ... into a true revolution by 1932. By pressing for deep-going reform and guaranteeing Vargas in power, the Club 3 de Outobro achieved the tenente goals of ending extreme regionalism, bringing new urban sectors into the political arena, making the army a truly national institution, and giving the State a pre-eminent role in social and economic policy.[36]

The shock of the global Depression of the 1930s increased the officer corps' anxiety about having to rely on outside sources of supplies. It was recognized that the army would only be able to achieve its goal of independence from European suppliers through a competitive domestic arms industry, and that this could only emerge if the entire Brazilian economy were industrialized. The civilian sector did not share the officers' concerns about achieving arms-supply independence, and while it saw the importance of taking steps to expand industrialization efforts, civilians were not yet prepared to act alone. The government and the military took the first steps. The former began by granting incentives

and subsidies to encourage increased exploitation of mineral resources. The military began by dispatching officers abroad to study not only military science but just about every technical field, from economics and engineering to oil prospecting and steel production. The first efforts were made at this time to establish technical schools within the army organization. In 1931 the Ministry of War created the National Steel Commission, consisting of representatives from the military, business, and scientific communities. By 1935 the government felt that state control of the fledgling steel industry was necessary for national security, and began encouraging exports of iron ore to raise capital to expand steel production capacity.[37]

In 1935 a crucial event took place which would leave a lasting impression upon the entire Brazilian officer corps. By this time, political turmoil had increased throughout Brazil. The severity of the situation was illustrated by the intense mobilization of the extreme right, represented by the Brazilian fascist movement, Integralismo, and by that of the extreme left, in which the Communist Party played a prominent part. Strikes, protests and street brawls between these opposing extremist groups became commonplace in the major cities. Finally, Vargas sent the army to close down the offices of the Communist Party and to jail its leaders. This precipitated a revolt by leftist junior officers, many of them Communists, who took over garrisons in Natal, Recife and Rio de Janeiro. Vargas declared a state of siege, and loyal

troops soon crushed the pro-Communist officers' revolt. Vargas also eventually moved to outlaw the Integralistas, and jailed or exiled its leaders, much to the surprise of the fascists, who had thought that the regime was sympathetic with their movement. Many officers would retain a deep-seated distrust of Communists from this period, as a dangerous group which not only fostered civil unrest and instability, but also as a movement which could threaten the unity and integrity of the army itself. Despite some sympathy and even admiration which many Brazilian officers had for the apparent military prowess and economic successes of the European Axis powers, they were nevertheless wary of the mobilization, violence and extremism of the domestic fascists as well. Meanwhile, with the backing of the military, Vargas used the prevalence of social unrest to take full power in 1937, cancel the upcoming national elections scheduled for the following year, and introduce his plan for the New State, the Estado Novo.

By the time of the Estado Novo, the senior ranks of the military were composed of members of the generation between the traditional Old Guard and that of the Young Turks and tenentes who had chafed under the traditionalists' yoke of command. While still cherishing the longstanding values of the military tradition, these new commanders were consciously molding a new perception of the role of the military in society. Senior officers such as General Goes Monteiro, a major supporter of the Estado Novo, began to relate the strengths, weaknesses and needs of the entire nation to those

of the military. In contrast to Brazilian military thinking of the past, which tended to set the military institution and its values apart from civilian society, military thinkers began to project their values onto society. As Goes Monteiro wrote in 1934:

> The Army is an essentially political organ; and as such it is fundamentally interested in a truly national politics, in all its aspects, from which emanate, to a certain degree, the doctrine and potential for war. General politics, economic policy, industrial and agricultural policies, the communications system, international politics, all the levels of activity, of production and of collective existence, including the instruction and the education of the people, the socio-political regime - all in the end affect the military policies of a country.[38]

These prescriptions tended to go both ways. For example, Goes Monteiro asserted that the solution to Brazil's problems stemmed not from a lack of political models (of the Communist, fascist or republican varieties, all of which had failed the nation), but rather from a lack of an appropriate organizational model (which could best be supplied by the armed forces). Conversely, the well-being of the armed forces, so vital to the security of the nation, was directly related to the well-being of society. A well-disciplined army could not be maintained by an undisciplined nation.[39]

While such views were becoming more common among officers, which in part accounts for the strong support given to the Estado Novo by the military, more pressing political problems served to keep the divide between senior and lower-grade officers open. As the Second World War began, pro-Axis sentiment was strong among many of the senior officers, due in

part to admiration for the early stunning military accomplishments of the Germans. While Vargas, too, may have harbored pro-Axis sympathies at first, his concerns, and those of the younger officers, were of a much more practical political nature. Fully cognizant of the growing economic and political power of the United States and its predominance in the hemisphere, Vargas managed to play on American fears that Brazil would tilt towards the Axis in order to elicit significant U.S. economic help.

Though it did not formally enter the war until the very end of 1941, the U.S. was preparing for the outbreak of war. These preparations also included plans to thwart the possible penetration of the Americas by hostile forces, whether politically or physically. Even as the U.S. was shoring up its bases in the Caribbean, contacts were made between the U.S. Chief of Staff George Marshall and his Brazilian counterpart Goes Monteiro. This included a visit to northeastern Brazil by Marshall on the Navy Cruiser "Nashville" in 1939. Fearing that war could possibly affect the French and British holdings in northwestern Africa, the Americans felt that increasing defenses in the northeastern salient of Brazil would provide both critically placed refueling and resupply stations and an outpost to prevent action against South America. The Brazilians, too, seemed to be aware of their vulnerabilities, as their first efforts at achieving arms these negotiations centered on coastal anti-aircraft defenses.[40]

Brazilian demands for significant aid in developing its steel-making capacity, along with arms supplies and debt forgiveness, were resisted by U.S. Steel. Fearing for its own future investments, this corporation at first refused to cooperate as long as the U.S. government was seriously offering to forgive Brazil its debts in order to get the South American power on board. The Vargas government then made it known that it was negotiating with the German Krupp industries for a similar deal. Concerned that its plans for preventing Axis influence from penetrating Brazil might flounder, the government put pressure on U.S. Steel. In 1940 the U.S. and Brazil concluded an agreement in which the U.S. would provide the necessary technical assistance for new steel mill operations, as well as credits for appropriate capital goods. The war in fact delayed the opening of the Volta Redonda steel mill until 1946, but this would serve as the cornerstone for later industrial development, becoming by the 1970s one of the most productive steel mills in the world.[41]

The efforts which the U.S. put forth to secure the exploitation of Brazil's northeast salient for continental defense and the valuable strategic asset it proved to be during the prosecution of the war clearly made a strong impression on Brazilian military thinkers. In the globalization of political tensions which characterized the Cold War era, the strategic importance of Brazil because of its position in the mid-Atlantic and its proximity to

northwestern Africa would continue to be emphasized by Brazilian geopoliticians and strategists.

The practical political sense of Brazil's leadership at this critical time also contributed to the organization of the Brazilian Foreign Expeditionary Force (FEB), which was sent to fight alongside U.S. troops in Italy.

> After Brazil officially entered the war in August 1942, its leaders saw that if the nation was ever to realize dreams of international power and prestige, it had to do more than be a symbolic ally. The result of months of discussion and diplomacy was [a] force of 25,334 men... that saw 239 days of combat as the base unit of Fourth Corps of the U.S. Fifth Army in Italy.... The expeditionaries... gave an impressive account of themselves, and Brazilians assumed that their victories would secure recognition of power status for the nation.[42]

Brazil was the only Latin American country to send a combat force to fight in Europe. The experience of the officers who fought alongside the victorious Allies was to add new dimensions to their political orientation. For one thing, it weakened, at least temporarily, the allure which authoritarianism had for many officers, as they could hardly fail to notice that the economic and military might of the democratic Allies was more than a match for the Axis. As well, their appreciation for the strength of the U.S. in particular, both in terms of its emergence as a major world power and in terms of the economic, political and technical benefits which the U.S. could bestow upon Brazil as a treasured ally, served to strengthen their identification with the U.S. and the West during the post-war era.

As had happened in the past, close contact with a technically and materially superior military served to increase the sense of frustration of the officer corps with the backward economic conditions of their homeland and with the conditions of the armed forces themselves. But contact with U.S. forces had the added affect, felt immediately on the Brazilian political scene, of fostering disenchantment with the authoritarian Estado Novo. Support for Vargas among officers dwindled significantly by 1945 as Vargas' hold on other sectors in his coalition also began to slip. Sensing that he would not be able to maintain his Estado Novo intact much longer, Vargas began to loosen up the more authoritarian features of his regime and promised free elections. Even so, he continued to maneuver politically in such a way that his opposition feared that he might be jockeying to re-secure his hold on power, just as he had in 1937. Among other efforts, he established two political parties, oriented towards different segments of the population, and began espousing policies which marked a swing to the left, or at least to a more populist and nationalist position. It was the army which finally delivered the ultimatum to Vargas to step down. The Estado Novo was finished, and it was the army which established the New Republic in 1945, much as it had been the army which had ushered in the Old Republic in 1889.[43]

In the two decades between the demise of the Estado Novo and the military's seizure of power in 1964, the role of the Brazilian armed forces in the political sphere seemed to fit

the familiar "moderating power" model. Conversely, its role prior to 1945 usually did not. Its actions in 1930 were those of just such a moderating power, when the armed forces intervened to oust Julio Prestes after what was widely perceived to be a fraudulent election, and handed power to Getúlio Vargas. Like the deposing of the Emperor in 1889, the military's support of Vargas' coup in 1937 ushered in a significant change of regime. The provocations by isolated units at the turn of the century, and the various tenente revolts were actions by factions within the armed forces, and did not represent actions by the institution as a whole. Furthermore, while they ultimately did have unique and far-reaching effects, both within the military organization and in political society, the revolts themselves were not successful, strictly speaking.

The proud experience of the FEB led to the prominence of its veterans in the hierarchy of the post-war military. There was a new appreciation of democracy among activist officers, and a strong feeling that Brazil's new constitution should be upheld. While this new constitution included that fateful clause calling on the military to support the government "within the limits of the law," most officers, at least until the early 1960s, were inclined to interpret the military's right to intervene in a narrow, legalist sense. This is not to say that the officers were a politically homogeneous group or even that authoritarian views did not persist within certain segments of the officer corps. Throughout the 1950s

there were many passionate debates over political issues among officers. Debates and political machinations in the Military Club had definite political influence both within and without the military. For example, after the demise of the Estado Novo, the question of the nationalization of key industries, such as Brazil's petroleum industry, was hotly debated in the Military Club. Fervent nationalists who strongly favored such policies centered in the so-called "green-yellow" faction led by Generals Barbosa and Leal. When Getúlio Vargas returned to politics and ran for president in 1950 on a developmentalist-nationalist platform which advocated state monopolies over key industries, General Leal had just been elected president of the Club. Many officers who were skeptical about Vargas' commitment to democratic ideals sought to prevent Vargas from assuming office on the grounds that he had not won an absolute majority of votes. Using his position in the Military Club General Leal was able to quiet the discontented officers. When Leal was made Minister of War, the more leftist officers of the green-yellow faction came to the fore and began to level harsh criticisms against Vargas' foreign policies, which they saw as too pro-U.S. The more moderate officers chafed under the high-handed actions of the radicals in the Club, while Vargas lost patience with Leal for the latter's reluctance to rein in the leftists in his faction. Leal was dismissed from his ministry, and the moderates succeeded in electing one of their own to the presidency of the Military Club in 1952. The Club was purged of its radical officers,

and many of them also found themselves reassigned to remote posts. When at last Vargas' presidency was overcome by scandal the Military Club's leadership demanded his resignation.[44]

The prominent political factions within the officer corps did not limit their activities to debates and declarations. Those which were less militantly nationalist and looked to ally Brazil with the U.S. in the Cold War struggle were intimately involved with the founding of the Escola Superior de Guerra (Superior War College: ESG) with U.S. assistance. Those officers associated with the ESG had a decided advantage in that the school became an integral part of the military educational system. The doctrines developed at the ESG necessarily influenced all officers trying to attain promotions to senior ranks (one could only be promoted to general after successfully completing the ESG course), but ESG doctrines also filtered down to the schools for middle and lower level officers. The ESG also encouraged participation in its courses by civilians from elite sectors of Brazilian society. Civilians who had completed courses at the ESG created branches of the Association of Graduates of the ESG in the major cities of the country in order to maintain contact, disseminate the ideas of the school, and to promote its policies.

The leftist-nationalist faction, while not having the advantage of influence in official military institutions for advanced studies, nevertheless sought to expand its influence

as well, within and through the <u>Instituto Superior de Estudos</u> <u>Brasileiros</u>, or ISEB. The ISEB was founded during the administration of interim President Cafe Filho, who served in the months between Vargas' suicide and the election of President Kubitschek. But the ISEB soon took on the nationalistic and populist flavors of the Kubitschek regime. This organization, which also had chapters in several major cities, and included prominent civilian scholars and politicians (such as Helio Jaguaribe and Celso Furtado), served to articulate and disseminate economic nationalist and leftist analyses of the issues of the day. But the ISEB eventually fell victim to its own internal factionalization, and as the decade progressed, its more moderate members (including Jaguaribe and Furtado) were forced out, and what remained of the ISEB became more radical and less politically influential. It was finally dissolved after the military regime came to power.[45]

The leftist-nationalists were often influential within the Military Club in the early and mid-1950s. It was in large part due to the economic nationalism of its majority that the Club supported the nationalization of the Brazilian oil industry during the Vargas administration of 1950-1954. They not only opposed Brazilian participation in the U.N. forces in the Korean conflict, but were highly critical of U.S. policies in general during this period. Both these positions were opposed by the officers associated with the ESG.

The _Estado Novo_ provided the first opportunity for the younger, pro-modernization officers to have a significant influence on government policy. By the end of World War II, the officer corps had added to its experience, having served as combat leaders, planners, managers, and having been exposed in great numbers (and with greater intensity) to new technological, economic and political ideas. Upon returning to Brazil, these officers not only reinforced the technology-oriented trends within the army, but found themselves in great demand in the growing civilian industrial sector. As more officers took planning and managerial posts in the private sector, there was a convergence of goals and cooperation between the business sector and the military.[46]

The Vargas coalition of the military, government technocrats and the new business sector (as well as parts of organized labor) survived into the post-war democratic period. The policy of promoting industrial development required massive governmental involvement, which the government was not at all reluctant to provide. There was a great influx of foreign capital in the 1950s and early 1960s, clearly indispensable for Brazil's development at that time, yet government investment accounted for larger and larger portions of total investment. In 1956, the public sector provided just over 28% of all investments. By 1960 government investments accounted for almost half the total, and by 1964 its share had reached 60%. But the military's share of the budget also went

up, accounting for almost one quarter of the national budget by the late 1950s.[47]

According to Alfred Stepan, civilian political actors still sought to enlist the military, or sections of it, in support of their partisan political goals, which on occasion meant urging military intervention. The military, for its part, embraced many different political points of view; however, organizational unity and discipline were highly valued by officers of all persuasions. Civilian and military leaders agreed that the armed forces could legitimately intervene in certain situations, although it was understood that military rule was unacceptable. Even senior officers who would come to advocate military rule by 1964 were still opposed to the idea as late as 1961-1962.[48]

Evidence that these new rules for the role of the military held sway can be seen in the various episodes in which military action was considered or actually employed. After Getúlio Vargas was forced to resign in 1945, he still remained active in politics. He ran for the presidency only five years later and was victorious. As Vargas' was mired ever deeper in scandal, he continued his political swing to the populist left. Conservative civilian groups, as well as many officers, were fearful that he would use his successfully mobilized popular support to stage another coup. When it was clear that not only was he not going to get the backing of the military this time, but that it was the military which was demanding that he step down, Vargas committed suicide.

Again, in the elections of 1955, the populist Juscelino Kubitschek won the election for president, and more alarmingly, the radical Getulista João Goulart won the election for vice-president. As a result, the anti-Getulistas openly urged the military to prevent their assuming office. Though some officers actually mobilized to take just such action, the high command isolated these officers in what was essentially a counter-coup, and insisted that Kubitschek and Goulart be allowed to assume power.[49]

The first crisis of the 1960s came after President Jânio Quadros precipitously resigned after less than a year in office. Goulart, who had been re-elected as vice-president was legally in line for the office. Already unsure of the decidedly independent and neutralist policies of Quadros, the fact that Goulart had to fly back from a meeting with leaders of the Peoples' Republic of China was indicative for many officers of the dangers of a Goulart presidency. Again anti-Getulista politicians and officers wanted to intervene to prevent Goulart from assuming office. This time, even legalist officers were sufficiently nervous to demand some further assurances that Goulart would not endanger the nation, though still agreeing that he be allowed to take office. The compromise imposed upon Goulart changed Brazil's government into a parliamentary system, giving more powers to Congress at the expense of the president. Goulart had no choice but to accept, but chafing under this new arrangement which stymied his efforts to implement his programs, he eventually

engineered a plebiscite in 1963 which restored full presidential powers.

The events which actually precipitated the coup of March 30, 1964, which ousted the Goulart regime and established the military in power were related more to military fears of growing social instability and especially of threats to the integrity of the military institution itself than to the advocacy of military rule by the majority of officers. It is significant, though, that by this time the influence of the officers associated with the ESG was ascendent and there had been a marked decline in the influence of the leftist-nationalist officers. But even many of the more nationalist-oriented officers were willing to support military intervention against Goulart when the military institution itself was threatened.

Against the background of growing social unrest, sponsored not only by labor and leftist groups, but also massive counter-mobilizations by conservative groups, military fears about social upheaval were already exacerbated. Goulart encouraged agitation by populist non-commissioned officers, calling for political rights (enlisted men were not allowed to vote or hold political office, whereas officers had both rights). The president was hoping to enhance his influence over the military by wooing the enlisted, which would at least make it harder for the officers to move against him.

After a mutiny by air force and marine enlisted men on September 12, 1963, President Goulart promised that the

mutineers would be disciplined. But several influential Goulart sympathizers, including his brother-in-law and governor of Rio Grande do Sul, Leonel Brizola, and ex-president Kubitschek, issued statements sympathizing with the rebels. When a general issued a harsh statement condemning the rebels, he was reprimanded. Within two months most of the rebels had been released from custody. The officer corps was outraged.

The officers became even more agitated after Goulart staged a huge public rally March 13, 1964, in which many of his supporters from among enlisted men participated. Goulart announced massive expropriations and called for a drastic change in the regime, including political rights for enlisted men and NCOs. Subsequently, a special meeting of the Association of Sailors and Marines was set to meet on March 25. Since the group was organized to unionize the navy, it was considered subversive by the upper-level officers. Although the meeting was forbidden, it took place anyway. The Minister of the Navy sent troops to arrest the participants, but Goulart immediately granted the arrested men amnesty.

The last straw was the address, broadcast on national television on March 30 in which Goulart urged the sergeants to press their political demands. Leonel Brizola also publicly advocated distributing arms to popular militias, the so-called "Groups of Eleven" (public defense cells composed of eleven members each, to be organized throughout the country). This final call which, in officers' eyes, encouraged mutiny in the

ranks and the arming of civilians against the military, was the last straw. Even as senior officers were meeting secretly to decide on what actions should be taken, generals in outlying areas began to move against the government, feeling that time was short and hoping to force the General Staff's hand. On March 31, the generals formally took power, Goulart fled the country after failing to get backing even from his fellow Riograndenses, and the New Republic was replaced by military rule.[50]

It is clear that the coup took place as a direct response to these alarming incidents. Those generals, including Humberto Castello Branco and Golbery de Couto e Silva, who stepped into the government with a well articulated ideology and attendant policies, had not anticipated or plotted to take over the government in order to implement their program. Indeed, it was only because the uncommitted officers were pressed into supporting a move against Goulart as a result of the clear threats posed to the military in the last months of the Goulart presidency that the coup could be instigated. Prominent civilian opponents of Goulart, such as Carlos Lacerda and Adhemar de Barros, had been anxiously calling for military intervention against Goulart long before the army made its move. These civilians were not only surprised when it became clear that the generals planned to stay in power, but many of them were deprived of their political rights by the new regime.

The military leadership had not conspired to take over the government in 1964 in order to drastically change the structure of the Brazilian government, economy and society. Yet when finally forced to move against Goulart, they were ready and equipped to establish a long-term military government.

PART III - CORPORATE IDEOLOGY AND THE NATIONAL SECURITY DOCTRINE

Many of the elements that make up what is referred to here as the corporate ideology of the Brazilian military are common to most modern military organizations. One consistent theme in the formation of the Brazilian military's self-image is the persistent quest for professionalization, which was evident since the end of the Empire. From episode to episode, whether it was exposure to Prussian or French military training; dependence on foreign sources for arms, which could be cut off in times of crisis; actual combat experience and contact with superior fighting forces, Brazilian officers were acutely aware that their own profession, and therefore the performance of both their patriotic duty and their livelihood, suffered because of the backwardness of their beloved homeland.

Technically-oriented officers found themselves presiding over an increasingly complex system, and learning a broader range of skills; but backwardness persisted, development

progressed too slowly and social unrest increased. The military became less and less patient with the ineptitude of civilian politicians, and increasingly convinced that they could do the job better.

> Their training stresses a 'technical' problem-solving approach. Emotional issues are nonsense; the ambiguities of bargaining and politics are hindrances to 'rational' solutions; and conflict is by definition 'dysfunctional'....That which is 'efficient' is good, and efficient outcomes are those that can be straightforwardly measured; the rest is noise that a 'rational' decision-maker should strive to eliminate from his decision premises. The texture of social reality is radically (in some cases, one is tempted to say, brutally) simplified....[51]

But this scorn for civilian politicians among Brazilian officers was built on a longstanding "tradition." McCann cites opinions of leading military figures as far back as the last years of the Empire who contrasted the venality of politicians (one element of which was their hostility to the army) to the pure, self-sacrificing and patriotic calling of the military.[52] The recurring efforts of civilians to weaken the armed forces institution or to counter-pose militias subservient to political machines also served to buttress the military's distrust of civilians.

Ostensibly, the military exists to protect Brazil from foreign aggression. However, since the Paraguayan War of 1865-70, almost all of the military action which its soldiers have seen has been against domestic enemies: quelling regionalist or separatist revolts; chasing runaway slaves and attacking quilombos; quashing mutinies; deposing an Emperor and several presidents. While Brazilian military strategists

have always been concerned about threat from Argentina, this threat never materialized (though it was real enough in the eyes of some officers to be a cause for foot-dragging in the assembly of the FEB to fight in Europe). In the post-war period the new emphasis on fighting Communist-inspired subversion was one legitimation for the internal mission of the military. The threat of subversion from Cuba, backed by the U.S.S.R., was very much on the minds of Brazilian officers. That Cuba was not only asserting itself as an alternative social model, but actually exporting revolution, was an alarming spectacle. While Cuban "exportations" of their revolution never amounted to much in Brazil, other neighboring countries such as Venezuela and Bolivia had to deal directly with Cuban adventurism. In addition to the spectre of Communism as an alternative system -- frightening enough for most officers -- the lesson of the fate of the Cuban armed forces, which was totally disbanded after the 1959 revolution, was not lost on the Brazilian officers.[53] This reinforced their aversion to Communism, which dated back to the Communist revolt in 1935.

Fears about the integrity of the armed forces in the face of a possible Communist revolution were sharp. The experience of the Brazilian military in their periodic political battles with civilian elites also left longstanding impressions on the military's outlook. In the last days of the Goulart regime, this mistrust of civilian intentions combined with the alarming incitements to mutiny on the part

of leftists-populist leaders such as Goulart, Brizola and Kubitschek. The actions of the latter served to reinforce the threat to the military felt by officers from civilian politicians in general, and from leftists of any stripe in particular.

The combination of the professionalization of the military and the adoption of the Cold War anti-subversive outlook, along with the growing competence of the officer corps in non-military fields resulted in a corporate outlook that drew on the armed forces' experiences of the past, traditional military values and molded to the exigencies of the Cold War. The study of economics, finance, industrial planning, together with the influx of ex-officers into the modernizing private sector added a sophisticated dimension to the nationalistic assumptions about Brazil's potential to become a great power.

Alfred Stepan accords a great deal of explanatory value to the professionalization of the officer corps as well as to the adoption of a new idea of the mission of the armed forces to include not only containing domestic unrest, but of guiding the nation out of its underdeveloped state.

> ...[T]he new professionals had come to believe that, in comparison to the civilian politicians, they now had constructed the correct doctrines of national security and development, possessed the trained cadres to implement these doctrines, and had the institutional force to impose their solution to the crisis in Brazil. ...[M]any of the doctrines of internal warfare, formulated originally at the ESG... permeated almost all major military groups in Brazil and were accepted as a basic new fact of political and military life.[54]

The National Security Doctrine, as the articulated version of these "correct doctrines," was a result of this change in orientation and was facilitated by the officers' new competency. But the National Security Doctrine itself, as it became progressively disseminated among the officers, became persuasive as an ideology itself (according to Stepan) and was no longer a mere extension or refraction of basic corporate military interests.

> ...[T]he important point... is that many of the doctrines of internal warfare, formulated at the ESG and later institutionalized in the ESG-influenced government of Castello Branco, permeated all major military groups in Brazil.... The central idea formulated at the ESG was that development and security issues are inseparable, even when differences over specific policies developed between the Castello Branco government and the Costa Silva government... almost all military officers agreed that since labor, fiscal, educational, and other problems were intrinsic to the security of the nation, it was legitimate and necessary for military men to concern themselves with these areas. From this premise came the steady broadening of military jurisdiction over Brazilian life when the military assumed power in 1964.[55]

Frank McCann, in his analysis of the "New Professionalism" (borrowing Stepan's term) tries to show that many of the attitudes and policies which the military brought to its administration did not break with the past.

> Clearly, since 1964 Brazil's system of civil-military relations functions differently from before, but that is not to say that the military has a completely new self-definition, rather that they are applying their usual one in a more direct and forceful manner.... If you study the Brazilian military's role in politics from the perspective of the post-1964 political arena, Stepan's 'new professionalism' seems reasonable. If you approach it from a historical analysis of the military institution, it begins to lose its newness and the situation of the last fifteen years appears as the logical outcome of long-range evolution.[56]

It would seem that the National Security Doctrine, while still of some import as a guide to understanding the economic and industrial policies of the post-1964 government, does not rule out an evaluation of these policies in terms of the corporate interests or the broader corporate ideology of the Brazilian military.

Finally, Edmundo Campos Coelho adds yet another dimension to the debate by emphasizing the value of the National Security Doctrine, not so much as an ideology for affecting the society outside of the barracks (an aspect which it nevertheless obviously had) but rather as a device specifically for unifying the armed forces themselves behind a new sense of mission. Rather than remaining an institution like others in society, influenced by the many political outlooks and ideologies, causing rifts in the ranks (as the political debates of the 1950s had done), here was an ideology formulated primarily by the military organization itself, within its own institutions. Campos Coelho also claims that the National Security Doctrine facilitated the coexistence of secular aspects of the "New Professionalism" with traditional military values. It also facilitated the integration of the military with society, though clearly on the former's terms, by providing a monolithic, hierarchical view of society and government. While not denying the importance of nationalist concerns and the influence of the "New Professionalism" in the formulation and adoption of the National Security Doctrine, Campos Coelho argues that the need to prevent the contagion of

the disease afflicting the society at large from destroying

the military was the primary reason for its development.

> Just as the Communist Mutiny had brought together the
> divided military elite, the stridency of populist
> leaders, the proliferation of officers advocating
> populist programs, and the political mobilization of the
> NCOs of the three services provoked military reaction in
> 1964. Because cohesion without consensus is unstable and
> transitory, the military leadership intended to
> institutionalize, within the armed forces, a doctrine,
> that of National Security.[57]

> The identity crisis of the armed forces is today on the
> way to being solved through the institutionalization of
> the National Security Doctrine within the military
> organization. The immediate result of this
> institutionalization is a high level of internal cohesion
> and consensus. From the military perspective, such
> success was made possible through the reduction of the
> level of conflict permitted in civil society.[58]

In the following chapters the main economic and

industrial policies of the post-1964 military government will

be examined. Special emphasis will be placed on those

decisions pertinent to the establishment and success of the

arms industry and related sectors. Ideological differences

between the various military administrations, and of the

emerging factions within the military, will be related to the

development and progress of the arms industry. The corporate

interests of the military as well as the political dictates of

the National Security Doctrine will be shown to affect

different aspects of the arms industry's growth. The

examination of the adoption and implementation of policies

under the military regime should yield evidence for

determining whether one or the other hypotheses (or some

synthesis of the two) best explains the impressive development

of the Brazilian arms industry.

ENDNOTES - CHAPTER II: MILITARY ROLES AND MILITARY IDEOLOGY

1. Authors who take such an approach include Joseph Comblin, whose book El Poder Militar en America Latina (Salamanca, Spain: Ediciones Sigueme, 1978) is highly critical of all South American military regimes which advocate the doctrine; and Jose Alfredo Amaral Gurgel, whose book Segurança e Democracia: Uma Reflexão Politica (Rio de Janeiro: Livraria Jose Olympio Editora, 1978) is a sympathetic account of the doctrine.

2. Jacques Van Doorn, "Ideology and the Military," in On Military Ideology, ed. by Morris Janowitz and Jacques Van Doorn (Rotterdam: Rotterdam University Press, 1971) p. xviii.

3. Robert Wesson, The Latin American Military Institution (New York: Praeger Publishers, 1986), p. 125.

4. Bengt Abrahamsson, Military Professionalism and Political Power (Beverly Hills: Sage Publications, 1972), p. 32.

5. Abrahamsson, Military Professionalism, p. 18.

6. Van Doorn, "Ideology and the Military", pp. xvii-xx.

7. Samuel Huntington, The Soldier and the State: The Theory and Politics of Civil-Military Relations (Cambridge, Mass.: Belknap Press, 1957), p.79.

8. Amos Perlmutter and Valerie Plave Bennett, The Political Influence of the Military: A Comparative Reader (New Haven: Yale University Press, 1980), pp. 20-21.

9. Abrahamsson, Military Professionalism, Chapter 11.

148

10. Irene L. Gendzier, <u>Managing Political Change: Social Scientists and the Third World</u> (Boulder, Colo.: Westview Press, 1985) pp. 63-69.

11. Samuel P. Huntington, <u>The Soldier and the State</u>, pp.11-15.

12. Abrahamsson, <u>Military Professionalism</u>, Chapter 12.

13. See Edward Bernard Glick's book <u>Peaceful Conflict: The Non-Military Use of the Military</u> (Harrisburg, Pa.: Stackpole Books, 1967) for a sympathetic account of this theory. Henrique Paulo Bahiana's <u>As Forças Armadas e o Desenvolvimento do Brasil</u> (Rio de Janeiro: Bloch Editores S.A., 1974) is an example of the Brazilian armed forces version of its role in encouraging national development through civic action.

14. Edwin Lieuwen, <u>Generals Vs. Presidents: Neomilitarism in Latin America</u> (New York: Frederick A. Praeger, Publishers, 1964) pp. 104-107.

15. Thomas E. Skidmore and Peter H. Smith, <u>Modern Latin America</u>. (New York: Oxford University Press, 1984), pp. 39-43.

16. Robert A. Hayes, "The Formation of the Brazilian Army and the Military Class Mystique, 1500-1853," in Henry H. Keith and Robert A. Hayes, eds., <u>Perspectives on Armed Politics in Brazil</u> (Tempe, Ariz.: Center for Latin American Studies, Arizona State University, 1976) pp. 7-10.

17. Hayes, "Formation of the Brazilian Army,"pp. 10-12; Skidmore and Smith, <u>Modern Latin America</u>, pp. 27-29.

18. Hayes, "Formation of the Brazilian Army," pp. 8-10.

19. Hayes, "Formation of the Brazilian Army," pp. 12-15.

20. Edmundo Campos Coelho, <u>Em Busca da Identidade:O Exercito e a Politica na Sociedade Brasileira</u> (Rio de Janeiro: Forense-Universitaria, 1976), p. 39.

218

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

21. Campos Coelho, Em Busca da Identidade, pp. 39-46; Robert A. Hayes, The Armed Nation: The Brazilian Corporate Mystique (Tempe, Ariz.: Arizona State University, 1989) pp. 52-55.

22. Robert A. Hayes, "The Military Club and National Politics in Brazil," in Keith and Hayes, Perspectives on Armed Politics, p. 143.

23. Hayes, "The Military Club," pp. 142-146.

24. E. Bradford Burns, Nationalism in Brazil:A Historical Survey (New York: Frederick A. Praeger, Publisher, 1968), pp.49-50.

25. E. Bradford Burns, A History of Brazil (New York: Columbia University Press, 1970) pp.153-155.

26. Campos Coelho, Em Busca da Identidade, p. 69. [Author's translation]

27. Campos Coelho, Em Busca da Identidade, pp. 70-75.

28. Frank D. McCann, Jr., "Origins of the 'New Professionalism' of the Brazilian Military," Journal of Interamerican Studies and World Affairs. Vol. 21 No. 4 (November 1979), pp. 512-514; Campos Coelho, Em Busca da Identidade, pp. 75-78.

29. Clovis Brigagão, "The Brazilian Arms Industry," Journal of International Affairs, Vol. 40/Nr. 1 (Summer 1986), pp. 101-114; Frank D. McCann, Jr., "The Brazilian Army and the Pursuit of Arms Independence, 1899-1979," in Benjamin Franklin Cooling, ed., War, Business and World Military-Industrial Complexes. (Port Washington, N.Y.: Kennikat Press Corp., 1981), pp. 171-172.

30. McCann, "The Brazilian Army and the Pursuit of Arms Independence," pp. 177-181.

31. Hayes, "The Military Club," pp. 146-152.

32. Campos Coelho, Em Busca da Identidade, pp. 80-81. [Author's translation]

33. Skidmore and Smith, Modern Latin America, p. 164.

34. Michael L. Conniff, "The Tenentes in Power: A New Perspective on the Brazilian Revolution of 1930," Journal of Latin American Studies, Vol.10/Part J (May 1978), pp. 61-82; Skidmore and Smith, Modern Latin America, pp. 164-172; Campos Coelho, Em Busca da Identidade, pp. 81-87.

35. Burns, History of Brazil, pp. 288-290. Skidmore and Smith, Modern Latin America, pp. 163-165.

36. Conniff, "The Tenentes in Power," p. 82.

37. Alexandre de S. C. Barros, "Brazil," in James Everett Katz, ed., Arms Production in Developing Countries: An Analysis of Decision Making. (Lexington, Mass.: Lexington Books, 1984); McCann, "The Brazilian Army and the Pursuit of Arms Independence," pp. 185-186.

38. Goes Monteiro, Pedro Aurello de, A Revolução de 30 e a Finalidade Politica do Exercito (Rio de Janeiro: Adersen - Editores, 1934), p. 133. [Author's translation]

39. Goes Monteiro, A Revolução de 30, pp. 157, 185-6. Campos Coelho, Em Busca da Identidade, pp. 104-107.

40. Ricardo Antonio Silva Seitenfus, O Brasil de Getúlio Vargas e a Formação dos Blocos: 1930-1942. (São Paulo: Companha Editora Nacional, 1985), pp. 281-284.

41. Seitenfus, O Brasil de Getúlio Vargas, pp. 288-290; McCann, "The Brazilian Army and the Pursuit of Arms Independence," p. 185.

42. Frank D. McCann, Jr., "The Brazilian Army and the Problem of Mission, 1939-1964," Journal of Latin American Studies Vol.12/Pt. I (May 1980) p. 108.

43. Skidmore and Smith, Modern Latin America, pp. 171-172; Thomas Skidmore, "Getúlio Vargas and the Estado Novo, 1937-1945: What Kind of Regime?" in Joseph S. Tulchin, ed., Problems in Latin American History: The Modern Period (New York: Harper & Row, 1973), pp. 243-249.

44. Hayes, The Armed Nation, pp. 198-200; Hayes, "The Military Club," p. 160.

45. Caio N. de Toledo, "Teoria e Ideologia na Perspectiva do ISEB," in Reginaldo Morães, Ricardo Antunes and Vera B. Ferrante, eds., Inteligencia Brasileira (São Paulo: Editora Brasiliense, S.A., 1986); Burns, Nationalism in Brazil, pp. 102-3.

46. William Perry and Juan Carlos Weiss, "Brazil," in James Everett Katz, ed., The Implications of Third World Military Industrialization: Sowing the Serpents' Teeth. (Lexington, Mass.: Lexington Books, 1984); McCann, "The Brazilian Army and the Pursuit of Arms Independence," p. 186.

47. Luiz Carlos Bresser Pereira, Development and Crisis in Brazil, 1930-1983 (Boulder, Colo.: Westview Press, 1984), pp. 35-6. McCann, "The Brazilian Army and the Pursuit of Arms Independence," pp. 188-189.

48. Alfred Stepan, The Military in Politics: Changing Patterns in Brazil. (Princeton: Princeton University Press, 1971), pp. 62-64.

49. Hayes, Armed Nation, pp. 201-203.

50. Jordan M. Young, Brazil 1954-64: End of a Civilian Cycle (New York: Facts on File, Inc., 1972) pp. 176-181. Burns, History of Brazil, pp. 365-367.

51. Guillermo O'Donnell, "Toward an Alternative Conceptualization of South American Politics," in Peter F. Klaren and Thomas J. Bossert, eds., Promise of Development: Theories of Change in Latin America (Boulder, Colo.: Westview Press, 1986), p. 256.

52. McCann, "Origins of the 'New Professionalism'", pp. 509-510.

53. Wesson, The Latin American Military Institution, pp. 159-160.

54. Alfred Stepan, "The New Professionalism of Internal Warfare and Military Role Expansion," in Alfred Stepan, ed., Authoritarian Brazil: Origins, Policies, and Future (New Haven: Yale University Press, 1973), p. 58.

55. Stepan, The Military in Politics, pp. 185-6.

56. Frank McCann, "Origins of the 'New Professionalism,'" pp. 506-7.

57. Campos Coelho, Em Busca da Identidade, p. 164. [Author's translation]

58. Campos Coelho, Em Busca da Identidade, p.173. [Author's translation]

CHAPTER III: INDUSTRIALIZATION POLICIES AND MILITARY POLITICS UNDER THE MILITARY REGIME

In this chapter, the economic and industrial policies implemented during the military regime will be examined, with special attention given to the arms industry. This examination will not be presented as merely an economic or political history of the period. The purpose is to analyze three interrelated themes which will hopefully help to determine which ideological explanation best accounts for the course of rapid industrialization and the development of the arms industry in Brazil from 1964 to 1985.

One theme centers on alternative explanations of the so-called "economic miracle." Not surprisingly, partisans of the military regime and advocates of the National Security Doctrine credit the regime's political and economic policies for the successes in this period. Some critics of the regime and its stated doctrine implicitly support such an explanation.[1] Yet others claim that while there were certainly unique features in the program of the regime, it is nevertheless the case that the growth of the industrial sector in this period is only a continuation of the process of Brazil's overall industrial revolution, and that some further expansion of the industrial sector could have been expected to occur after the crisis of the early 1960s in any case.[2]

The second theme concerns the extent to which it can truly be said that the ideology of the "Sorbonne Group" (as the officers most closely associated with the Escola Superior de Guerra were called) was dominant throughout this period. The strongest advocates of the National Security Doctrine were continually at odds with the linha dura (hard line) officers who shared some of the general assumptions of the Sorbonne Group, but tended to be much more nationalist, more hostile to the civilian sector (especially to politicians and parties), more suspicious of foreign capital and transnational corporations, and more concerned with the specific needs of the Armed Forces per se. The task at hand is to contrast the hypothesis that the policies derived from the National Security Doctrine are responsible for the success of the Brazilian arms industries with the alternative hypothesis which explains this success in terms of the corporate ideology of the military. The two competing factions within the Brazilian military from 1964 to 1985 may each be seen to be representatives of these two ideologies: the Sorbonne Group representing ther national Security Doctrine approach, and the linha dura reflecting the corporate ideology of the military.

The third theme concerns the place of the Brazilian arms industry in the industrialization program in general, and in the politics of the regime. The implantation of this industry was expected to yield certain benefits which would dovetail with the broader economic needs of the country: attracting the most advanced technology from abroad; technological spin-off

into other sectors; and the ability to export in a particularly lucrative international market which was expected to continue to expand. And indeed, some of these goals were facilitated by Brazil's new capacity to export arms. However, as has been shown, the goals of arms production and relative arms independence have long existed within all factions of the military. Much of the politics involved with the formation of this industry can be explained in terms of specifically military interests.

PART I - BACKGROUND TO THE FIRST INDUSTRIALIZATION POLICIES OF THE MILITARY REGIME

When the Brazilian military expelled the Goulart government in 1964 it was not clear that the military would remain in power for long. Even among the leading officers there had been no clear-cut decision concerning how long it would be before the government would return to civilian hands. That the leading generals were formulators of the National Security Doctrine does not in itself prove that the military had decided to overthrow President Goulart in order to totally restructure the Brazilian economy and political system. As has been shown in the previous chapter, the fears in the officer corps that the populist government was about to seriously undermine the armed forces and lead Brazilian society into chaos, if not revolution, unified officer opinion behind the coup.[3]

However, it has also been shown that the National Security Doctrine had penetrated deeply into the mind-set of the officer corps, due not only to the virtues of the doctrine itself, but also due to the way in which officer education and advancement had been reorganized after World War II. Moreover, many of the elements of the National Security Doctrine were shared by officers, intellectuals and technocrats who were not (at least at first) adherents of the Doctrine. Such views included acknowledging the role of the State in economic affairs. Before the advent of Getúlio Vargas and the Estado Novo, the role of the Federal Government was limited, and though it did perform some crucial economic tasks, these were usually limited to a handful of key sectors. The best example in the pre-Vargas era was the role the government played in supporting the Brazilian coffee interests, which dominated the Brazilian export sector (not to say politics) in this period. Because of the tremendous weight that coffee exports had, the government committed itself to buying up the coffee surpluses which could not be marketed in order to guarantee the incomes of coffee producers, the jobs they created, and to influence the price of coffee on the world market (as Brazil was the leading producer of coffee at the time). Due to the hold that coffee interests had on the government, and because Brazil had few other exports of comparable value, this policy continued even after other countries entered the market, and after the

worldwide Depression sent the coffee market into precipitous decline.[4]

Though single-crop economic (and political) control was nothing new in Brazil, the Vargas government was the first to attempt to wrestle control of the economy and the federal government from the hands of a single dominant sector. In the process, as has been shown, the first far-reaching and successful steps were made not only to centralize powers, but to stimulate industrialization and economic diversification.

The influence of the Great Depression, the Estado Novo, and World War II served to reinforce the new attitude toward the proper role of government in economic affairs, among populist nationalists and conservatives alike. The question wasn't whether the government should be involved, but to what extent and in which sectors.

In the pre-1964 period, governmental stimulation of industry and the economy reached its height during the administration of Juscelino Kubitschek. The populist president's call for "fifty years of progress in five years" was backed by massive public sector investment in projects to develop the infrastructure and to open Brazil's interior regions (symbolized by the building of Brasilia, itself a mammoth project). The government actively pursued a policy of import substitution at the intermediate level, especially encouraging the establishment of a domestic automobile industry. There was also a tremendous flow of foreign capital into the country, both through investments and borrowing. As

industrial output achieved impressive results, averaging 10.7% growth per year from 1957 to 1961, inflation also soared, and Brazil's foreign debt grew at alarming rates.[5]

The main point to emphasize at this stage is not so much the nature of the Kubitschek regime, but that the industrialization process, and the high rates of growth of the Brazilian economy were already features of the new Brazil before the seizure of power by the military. Many analysts will argue that the "Brazilian miracle" of 1968-1974, that period of outstanding economic performance guided by the military regime and its technocratic allies, was but another cycle in Brazil's industrial revolution, which had been initiated in the 1930s and accelerated in the subsequent two decades.[6] Seen in this light, the economic crisis of the Quadros and Goulart period represents a downturn, rather than an arrest, of this development. That the crisis continued until 1967, three years into the military regime, provides some additional support for this explanation, especially since, as will be shown, the regime's own economic technocrats disagreed on the economic aspects of the crisis, and essentially made a volte face in their own policies in 1967.

Certainly the question of whether the successes of the military government were only possible under a dictatorial, authoritarian regime is important. If, indeed, the growth during the "miracle" was not significantly different than that which might have occurred under a more democratic regime, this would call into question much of the ideological rationale of

the advocates of the regime's political policies. Nevertheless, since the issue under discussion includes the relation between the ideology of the armed forces and the industrialization policies they pursued when in control of the government, it is the fact that the regime perceived the problems in the fashion it did which is important. Furthermore, except for some initial steps taken during the Estado Novo, and the critical implantation of the automobile industry during the Kubitschek administration (which was not at the time related to arms production), there still remains the critical question of the role which the military regime expected arms production to play in their own industrialization program.

The primary tasks which the government of Castello Branco set for itself upon assuming office were those of stabilizing the economy and ridding the upper echelons of public life of people suspected of being corrupt, subversive, or otherwise responsible for the reckless populism that had led Brazil into crisis since 1961.

Even before Castello Branco was formally appointed President by the Congress on April 11, 1964, the junta issued Institutional Act No. 1. In accordance with Castello Branco's hopes that the military would soon be able to get the nation back on track, this act was set to expire in January of 1966. Its stated aim was to maintain the Constitution of 1946, but with modifications. These modifications, though simple, were far-reaching. They included changing the rules to allow

military officers to serve as President and Vice-President; concentrated economic initiatives in the hands of the President, giving him exclusive right to initiate constitutional amendments and bills that would increase or create new items in the national budget; and suspended constitutional guarantees for six months. This last feature allowed the government to remove politicians and officers from their positions, and to suspend citizens' political rights without legal recourse.

The manner in which the Institutional Act was promulgated already established some of the contours of the policies to be supported by the officers associated with the Sorbonne Group. They had seized power and decided to retain their hold on power for at least a year and a half (in contrast to the 'traditional' form of military intervention as the exercise of the armed forces' moderating power, when political control was quickly handed back to civilians, albeit civilians acceptable to the military). Nevertheless, they were concerned to give their hold on power legal legitimacy. With radical and clearly undemocratic procedures in the offing, these officers intended to cleanse and stabilize the system in order to restore democracy, or at least a great degree of popular political participation, as soon as the necessary changes in the economy and political system were effected.

Questions concerning the depth and sincerity of the Sorbonne Group's commitment to democracy are certainly in

order in view of their subsequent actions. Nevertheless, their attitude toward democracy (as they defined the concept) is a distinguishing characteristic of this group. The Sorbonne Group's record of reluctance to sanction military intervention during the past two decades (when these officers discouraged the military from preventing Kubitschek and Goulart from assuming the presidency), as well as the prominence of democratic notions, however ambiguous, in the National Security Doctrine (because of its association with modernization and with the Western alliance against Communism), and its avowed intention to return democracy to Brazil as soon as possible, clearly make this group distinct from the officers associated with the linha dura. Indeed, Castello Branco's insistence on holding elections, however manipulated, and honoring their outcomes, would cause the clash with the linha dura that resulted in Costa e Silva's assumption of the presidency in 1967.

The new government was made up of officers and economists. The Minister of Finance was Octavio Gouveia Bulhões, of the Getúlio Vargas Foundation. Roberto Campos (who would be dubbed "Bob Fields" by nationalist detractors critical of his supposed deference to U.S. and other foreign economic interests) headed the newly created Ministry of Planning and Economic Coordination. Bulhões and Campos were given extensive powers to design new economic policies, subject to nominal review by Congress, but in fact only

answerable to the President and his inner circle, who were inclined to support them.

Almost immediately Campos and Bulhões announced their first Government Program of Economic Action (PAEG). This economic program was intended to rectify distortions resulting from three main sources: the public sector deficit; excessive credit available to the private sector; and excessive wage levels in the labor sector. By rectifying these distortions Campos and Bulhões expected to be able to reduce inflation from 25% to 10% by 1966. They assumed that Brazil's high rate of inflation was the result of excess demand (that is, demand-pulled, rather than cost-pushed inflation).[7]

In order to address the public sector deficit, the government increased the prices charged by state enterprises and public services, which had been kept artificially low by the preceding civilian governments. Tax laws were changed and attempts were made to make tax collection more efficient. One traditional loophole enjoyed by the larger taxpayers was closed, as assessed taxes were to be kept constant, so that those contesting their tax bills in the courts would not benefit by letting the time it took to make appeals devalue the amount owed, making it extremely profitable to refrain from paying as long as possible.

Credit was tightened for the private sector. The desired effect was twofold. First, since unemployment was a problem with social and political, as well as economic, ramifications, the government desired to temporarily slow down

the tendency to import expensive and modern equipment that had the effect of substituting labor by automation.[8] Secondly, it was intended to combat speculation, another widespread practice fueled by inflation. Tighter control over credit would hopefully enable the government to redirect investments into more productive areas.

Laws were changed concerning foreign capital. Limits on profit remittances were abolished, though a parallel system of increased taxes was overlaid on such investments.[9]

An elaborate mechanism was put into place for calculating wages. Adjustments in wages were not to be made more than once every twelve months. Increases would be calculated on expected inflation (which was systematically underestimated). The net effect was to keep wages artificially low, causing a decline in real wages for all levels of the labor sector until the formula was revised in 1968.[10]

In spite of the desire to reduce the amount of public expenditure, investment in housing and in infrastructure were part of the new program. The housing program, backed by the creation of the Workers' Pension Guaranty Fund and the National Housing Bank to coordinate the collection of funds and of investments in building, was based on capital raised by assessments on workers and employers. The government's interest in rejuvenating the housing industry was in part due to an appreciation of the need to create new sources of employment as well as to address a critical social problem

which could become a source of political turmoil. Investments in infrastructure, based on assessment of the needs of the country to ready itself for economic expansion were also expected to provide a new source of employment.[11]

During the Castello Branco administration active stimulation of industrialization was not yet a part of the government's program. Economic stabilization was the priority. The assumption was that by eliminating the causes of distortion in the economy, and bringing inflation back to manageable levels, Brazil would become more attractive to foreign investors, and local capital would follow suit.

The economic record of this period was mixed. Inflation came down, but not to the rates anticipated by Bulhões and Campos. Foreign funds did begin to flow into the country, but approximately 80% of this was in the form of USAID funds. Foreign private capital inflows, though increasing, were also much less than anticipated.[12] GDP began to grow again, but this was due in part to an exceptional coffee harvest and fortuitous coffee prices. Expansion of productive industries was still low, with many areas suffering from excess capacity. In some economic circles it was felt that the government's official analysis of the inflation problem was flawed. In fact, by restricting the spending power of the public by its wage control program, domestic markets contracted even further.

Yet another characteristic of the Castello Branco government was its ambivalent attitude toward the private

sector. In theory, it favored developing the private sector and encouraging private initiative and industrialization. Yet, in keeping with the professional attitudes of the military, and its self-perception as guardians of the national interest, the military continued to be suspicious of the capitalist class. As Luis Bresser Pereira observes:

> If this government was philosophically idealist, in the economic sphere it was immobilist and anti-industrialist. It was immobilist, not because it desired economic stagnation for Brazil, but because it placed monetary stabilization as its primary objective and was ready to sacrifice development to the fight against inflation. It was anti-industrialist not in the sense that it thought to check Brazil's industrial development, but rather because it viewed industrialists and entrepreneurs in general through the typical moralism of the middle class, mistrusting them, suspecting them of seeking to earn maximum profits, of speculating, and therefore of needing government supervision. It was also anti-industrialist to the extent that in its fight against inflation, the government did not hesitate to sacrifice industry, restricting its credit, for example, more than that of agriculture.[13]

_The economic policies of the Castello Branco government did not manage to win Brazil's private sector unequivocally to its side. The threat of populism had been removed, labor had become manageable, and inflation had begun to fall; nevertheless, investments were still too scarce, and production continued to stagnate. The nationalist sentiments of many in the private sector were also aroused by the prospect of a government so clearly committed to wooing foreign capital. Yet this group was unable to constitute itself into an effective, if loyal, opposition. The new regime, though billing itself as a pro-capitalist regime, excluded the very class it pretended to champion. For their

part, Brazil's entrepreneurs harbored mixed feelings about the regime (though they had supported the intervention of 1964), but had also not shaken itself from its tradition of political disorganization and conservatism.[14] Brazil's capitalists were not yet imbued with the aggressive entrepreneurial spirit that would be necessary if this class were to lead the country on the path of industrialization. Rather than lead, they would be led, which in part accounts for the ability of the generals to stress an arms industry-centered industrialization program.

This focus on the arms industry was apparently not an essential part of the Castello Branco government's program, in part because it did not undertake active stimulation of industry. It preferred to use monetary policies to stabilize the economy, and create a favorable business climate. Nor did it expect to govern for long. Nevertheless, some important first steps were taken under the first military president which would later be expanded upon to stimulate the arms industry.

Though it appreciated the importance of technology both for the advancement of industry in general, and for the achievement of the goal of arms independence, Castello Branco's administration approach has been labelled "technological laissez-faire" by Emanuel Adler.[15] The administration assumed that by stabilizing the economy and inviting international investment, the private sector would naturally move in the direction of acquiring higher levels of technological knowledge for its own advantage. Some centers

for research and development had already been established before the 1964 coup, such as the CTA (Centro Tecnologico da Aeronautica), founded by the Air Force in the 1950s, and the state corporation Avibras, for the development of rocket and missile systems, established in 1961. However, these would have to wait until the Costa e Silva administration before they expanded into serious arms production.

In 1964, the government created two new agencies under the National Economic Development Bank (BNDE) to facilitate the acquisition and application of technology in industry. The first, the Scientific and Technological Development Fund (FUNTEC), was to provide funds to support research meant to expand the nation's technological base and to pass that knowledge on to domestic public and private enterprises. The second was the Special Agency for Industrial Investment (FINAME). In the effort to expand the pool of capable technicians available, the government also created the Studies and Projects Financing Agency (FINEP) and the Coordination of Graduate Programs in Engineering in 1965. The latter two programs dovetailed with the educational-cum-political policies of the military regime which sought both to reorient higher education from its traditional concentration in philosophy and the social sciences toward one which would produce more "useful" graduates in science, technology, engineering and economics, and to rid the system of those activist students most likely to criticize and oppose the new ideological orientation of the regime.[16] The Castello Branco

administration capped its limited program of stimulating technology for industrial development by creating the Fund for the Support of Technology, which expressly sought to support the training of industrial technicians, within the Ministry of Industry and Commerce.

Towards the end of his administration it had become abundantly clear to Castello Branco that the restructuring of Brazilian economic and political life in such a way as to insure renewed growth and continued stability would not be possible within the time frame he had set. In addition, the linha dura, not satisfied that the nation had been thoroughly cleansed of corrupt and subversive elements, was not yet willing to return to the barracks. Castello Branco insisted on holding to the schedule of state gubernatorial elections set for October 1966. When the returns showed that the opposition had won the elections in several key states, the younger officers associated with the linha dura were incensed and called for the annulment of the election results. Faced with this crisis within the ranks, Castello Branco found himself caught between his determination to honor the results of the elections and the need to assuage the right. The President immediately launched into the drafting of a new constitution, as well as issuing a flurry of new laws and decrees, all intended to institutionalize the 1964 Revolution and to insure that his successor, who was likely to be more authoritarian than Castello Branco would prefer, would not deviate too widely from the course already set. The new

Constitution was formally proposed in December 1966, approved by Congress in January, and was to go into effect in March, by the time the new president would assume power.

The new Constitution formalized the presidential powers declared in the first Institutional Acts of the regime. But it also included several features elaborating on the economic and planning responsibilities of the government. Among other provisions, it established not only the primacy of the federal government over the states in economic policy making, but also allowed the Federal government to override or cancel state policies not in line with national programs. Though industrial production was to be in the hands of the private sector in principle, the government could take over monopolies deemed essential to national security, and could initiate state enterprises to develop essential industries that could not be profitably developed through the market.

Castello Branco also directed Roberto Campos to issue a 10-year development plan before the ascent of the next administration in the hope that his successor would be bound by it, thereby insuring continuity in economic policy. Though, in fact, Costa e Silva would abandon the plan, his administration did adopt three of Campos' essential themes. These included: an emphasis on micro-economic planning to harmonize growth, stability and balance of payments; combining social policy, in areas such as housing or education, with economic and technology policy; and a renewed emphasis on the

temporarily eclipsed agricultural sector, which was still expected to play an essential role in exports.[17]

PART II - POLITICS AND POLICIES UNDER THE HARD-LINE PRESIDENTS, COSTA E SILVA AND MEDICI

General Artur Costa e Silva was chosen to succeed Castello Branco as a result of a revolt of younger officers associated with the linha dura. Alarmed by Castello Branco's honoring of the recent elections and failure to deal harshly with politicians who were defaming the military, as well as from opposition to policies which would "denationalize" the Brazilian economy, these younger officers, led by the mercurial General Albequerque Lima, conspired to overthrow the President in October 1966. Though not yet seen to be fully associated with the linha dura, Costa e Silva was clearly not a member of the Sorbonne Group. He was seen as a down-to-earth, non-intellectual "soldier's soldier," and was very popular within the officer corps. As Minister of War at this time, it was Costa e Silva who negotiated with the would-be golpistas. While he convinced them to back down, he also made it clear to Castello Branco that continued military support for the government could not be maintained without some attention being paid to the younger officers' concerns. Though the Sorbonne Group was wary about Costa e Silva's nationalist leanings, they were especially uneasy at the prospect of the extremely nationalist views represented by Albequerque Lima gaining influence. In order to make the best

of the situation, Castello Branco and his allies backed Costa e Silva as the next president.[18]

Upon taking office in March 1967, Costa e Silva appointed a new cabinet, replacing all those who had served his predecesor. This not only gave the new administration its own character, but signalled an important change in direction. In Castello Branco's last major cabinet shuffle before leaving office, in January 1966, he had pointedly brought in several politicians, in an attempt to muster popular support for the regime and to highlight his desire to put Brazil on the path of redemocratization.[19] Costa e Silva's cabinet appointments made no such concessions to the politicians, and was composed in large part of military men, including hard-liners such as Albequerque Lima. With one exception, the officer-ministers were known to be highly nationalist, and unlike the Sorbonne Group, highly suspicious of the United States.[20] Two key civilians in the new cabinet were Antonio Delfim Netto, the Minister of Finance, and Helio Beltrao, the Minister of Planning. The free rein given to Delfim Netto and Beltrao was indicative of the military's willingness be content to leave this realm in the hands of tecnicos.

Delfim Netto proved to be somewhat more flexible than his predesessor, Roberto Campos. Though still interested in facilitating the inflow of foreign investment, Delfim Netto reversed the emphasis that Campos had placed on monetary reforms and fighting inflation. While continuing some programs such as increasing prices of public services and

rationalizing the tax system, the new Finance Minister freed up credit to the private sector, reduced taxes on consumer goods, and created an Interministerial Price Council (CIP) to control rising prices. The formula for calculating wages was modified to bring wage increases more in line with actual cost-of-living increases. Demand was to be stimulated, rather than curtailed, with the expectation that production would revive accordingly. The new policies did have the desired effect as the economy began to expand again, led by leaps in industrial growth at the levels of 12.4% in 1967 and 13.3% in 1968.[21]

Public expectations were that Costa e Silva would loosen the military's grip on society, notwithstanding the circumstances behind his accession to power. Costa e Silva himself seemed to foster such hopes, as in the first two years of his regime he fostered policies meant to give him broader public support, such as the reformulation of wage policies.[22] Until the wave of strikes and protests, and the increase in guerilla activity in 1968 the President seemed reluctant to use a strong-arm approach for dealing with an increasingly restive public. This desire on the part of Costa e Silva to "humanize" the regime was perceived as weakness by an increasingly restive linha dura. Some elements of the military, the police and secret investigation agencies began to take matters into their own hands. Death squads emerged, and investigators became implicated in torture and disappearances, often unauthorized, if tolerated, by the

government. Political events came to a head in December 1968

when the President issued Institutional Act No. 5, followed

quickly by a stream of Supplemental Acts and additional

Institutional Acts, which gave the military total control of

the government. Congress was dismissed, censorship was

increased, more opponents of the regime had their political

rights revoked, and people suspected of subversion and

endangering national security were to be tried by military

tribunals rather than by civilian courts.[23]

> The Costa e Silva government was reverting to the use of
> arbitrary powers that characterized the early months of
> the Revolution. The rationale, however, had to be
> different. In the days and weeks after the Congress had
> been suspended and Institutional Act No. 6 issued, the
> President defended the new authoritarian measures as
> necessary to "reactivate the Revolution." He noted
> bitterly that his government's tolerance had been
> answered with intolerance, and its magnanimity seen as
> weakness. He could not stand by and see democracy
> destroy itself, supposedly in the name of democracy, he
> argued. The rationale given for the crackdown was the
> National Security Doctrine, which argued that the nation,
> and ultimately the military, had as great a duty to
> protect itself from internal enemies as from external
> enemies. That doctrine was now worked to the limit as
> Brazil descended deeper into authoritarianism.[24]

It should not be supposed that Costa e Silva's actions

can be ascribed to a rigid fealty to the National Security

Doctrine. If any and all actions taken by the military regime

can be *ipso* *facto* attributed to the Doctrine, then

distinctions between the factions within the military become

meaningless. That the officers that made up the Sorbonne

Group and their allies (that is, those that formulated and

advocated the Doctrine in its entirety) were uneasy with the

choice of Costa e Silva, and frankly alarmed at the policies

advocated by the extreme nationalists such as Albequerque Lima, certainly indicates that important ideological divergences existed. Though the two presidents who represented the hardline faction, Costa e Silva and Medici, continued to let tecnicos more sympathetic to the Sorbonne Group formulate and implement economic policy, they still had the ultimate say over such policies, and often supported a more rigidly nationalistic line. As well, they diverged significantly on questions of the need to prepare the country for a return to democracy, concern for human rights, and the primacy of the interests and prestige of the military.

The "economic miracle" would take off under the regimes of Costa e Silva and Emilio Garrastazu Medici. The development of the arms industry would be an integral part of the leap forward in industrialization, and even be its centerpiece, continuing to expand even after the recession following the "miracle" set in. However, arms production was not pursued at first because it was expected to become a leading export provider, or because it was expected to be able to bring in much needed foreign exchange. It can even be doubted that the expected economic benefits such an industry would be expected to have for domestic industry in general accounts for the "take-off" of the arms industry at this point.[25] The point at which the Brazilian arms industry began to advance so that within the space of fifteen years Brazil moved from no significant arms production at all to being the leading arms exporter among Third World nations coincided with

the industrialization policies of the military regime. But other events converged in this period which must also be taken into account if one is to get a clear picture of the conditions and causes behind the success of Brazil's arms industries.

Since the end of World War II, Brazil, like other Latin American countries, relied upon the United States for almost all of its military supplies. U.S. interests in limiting the amounts and kinds of weapons in its Latin American clients' militaries, as well as the level of technology received, caused some disatisfaction among officers from time to time. But the U.S. managed to keep its role as chief supplier until it became bogged down in Vietnam. The conflict in Southeast Asia consumed more and more of the U.S.' military resources, making less available for its Latin American customers.[26] By the late 1960s Western European arms producers were also beginning to look for export markets for their products. These industries did not have the domestic absorptive capacities enjoyed by those in the U.S. Furthermore, armaments were becoming more highly technological and expensive. To achieve economies of scale, foreign markets had to be sought.

This search for markets abroad coincided with the growing fears of the military in Brazil about the reliability of the U.S. as a source of arms. Western European arms suppliers were not only willing to sell arms to Latin American countries on terms that were attractive, but they were also

not overly concerned at keeping a ceiling on the level of technology included in such items as the U.S. had always been.

The new Western European source of supplies also offered another advantage to Brazil which the new military government was already geared to exploit. In keeping with the policies of the new government to forge links with foreign corporations in order to acquire new technologies and sources of capital, the Brazilians found that many arms producers were willing to agree to establish joint ventures on the unique terms demanded by Brazil. The terms demanded by the Brazilians would facilitate the training of Brazilian technicians and engineers, transfer production of arms systems to Brazil, and limit the length of time which Brazilian firms would be expected to produce the systems under obligation and to pay royalties to the foreign firms. In effect, Brazil was able not only to diversify its sources of arms, giving it a greater degree of independence from the U.S., but to acquire much more sophisticated arms than the U.S. had previously allowed. At the same time it could acquire the financial and technical capability to begin to produce arms. Beyond the advantages that this new situation might have for general economic and industrial expansion plans, it clearly allowed the Brazilian military to achieve several of its longstanding goals.

The first Brazilian firms to take advantage of this new state of affairs were ENGESA and EMBRAER, though in quite different ways. ENGESA is a state-owned conglomerate of industries producing utility and land vehicles for military

use. When the army began to experience problems in acquiring land vehicles to replace its obsolete fleet of jeeps, trucks and tanks, it turned to ENGESA, requesting that it produce prototypes for some of the needed items. In this case, ENGESA was able to produce these items using technology already available in Brazil. Indeed, a unique type of vehicle suspension developed for agricultural vehicles operating in the rugged terrain of the Brazilian hinterland proved to be especially advantageous for use in the new military vehicles. By 1972 ENGESA was supplying the army with the armored personnel carriers EE-9 Cascavel and the EE-11 Urutu. It was also discovered that these products, technologically unsophisticated if unique in design, were marketable to militaries in other less-developed countries, which could neither afford nor maintain the hi-tech versions available from America or Europe. In addition, as these vehicles were made from domestically developed technologies, ENGESA did not need to worry about restrictions placed on international marketing of arms that contained components supplied by the U.S. These vehicles could be sold to anyone willing to buy them and with whom Brazil was willing to deal.[27]

The impetus behind the formation of the Brazilian Aeronautical Corporation, or EMBRAER, also came at the time when Military Assistance Program (MAP) supplies from the United States were drying up. Based on the research already underway at CTA, the Air Force asked that the CTA develop prototypes for locally produced planes for troop transport and

flight training. EMBRAER was established by Presidential Decree in 1969 in Sao José dos Campos (where CTA and the Instituto Tecnologico da Aeronautica, or ITA, were already located) as the enterprise to produce the protoypes and eventually to serve as the main assembly factory. The formula which the government officially adopted for the creation of such new enterprises, including those in the arms industry, was called the tri-pé model -- a triple association of state, domestic private and foreign capital. The foreign component was important because it was seen as a likely source of ready capital in the newly stabilized economy, with the additional benefit of giving more confidence to domestic investors. It was also expected that this would create a conduit for advanced technology to reach Brazilian industry.[28]

As has been noted before, the domestic entrepreneurs were a conservative lot, not used to the risk-taking investments associated with the capitalist classes of developed economies. Few, if any, substantial domestic investors appeared to be interested in the new undertaking. In the end, the government unilaterally decided that major companies in Brazil would be required to buy the equivalent of 1% of owed federal income taxes in non-voting shares in EMBRAER. This involuntary program of investment generated about 18% of the initial capital for the new enterprise. As this program was pursued, the domestic private shareholders eventually accounted for over 90% of all shares owned, while the government's portion of shares dropped from 31% to 7% by

1982. Because this particular industry was considered essential to Brazil's national security, the government still maintained control of the majority of voting stock, and there was no direct investment by foreign corporations. Foreign corporations did participate in joint-ventures until the contract period ended for a given project, and EMBRAER assumed full control of production.[29]

Most production engineers in EMBRAER were transfered from CTA. (A similar movement of trained personnel would take place between government-military institutes such as CTA and ITA to other defense industries as well.) The government also gave support to EMBRAER in the form of tax exemptions on imports of material, components not locally produced, and equipment. The savings realized from such exemptions were to be reinvested in EMBRAER and associated firms. CTA and EMBRAER were able to produce satisfactory prototypes of the planes requested by the military. The EMB-110 Bandeirante, an 18 passenger twin turbo-prop transport was to become the most successful, providing the basic design employed in other models for military and civilian use. The trainer-fighter AT-26 Xavante was produced under a co-production agreement with the Italian Aermacci company. Satisfied with both, the Air Force ordered 80 units of each plane.[30]

The unique contours of government policy are already evident at this stage of the arms industry's development. While the government and the military had clear ideological and corporate interests in promoting industry, and the arms

industry in particular, it was also clear that these industries were to be run in an economically viable manner. Just as within the government the economic and planning ministries were given a great deal of latitude, so were the state-owned enterprises allowed to operate without undue political interference. The government did provide support, capital, economic incentives and tax exemptions. But the government also expected its enterprises to manufacture products which would be competitive. Managers and technicians in these and other state-owned industries were to be experts matched to the production needs of the industry, not political appointees or officers on rotation.

After Institutional Act No. 5 and subsequent laws were promulgated by the Costa e Silva government in December 1968, events in the coming year would give impetus to the authoritarian and nationalist policies of the linha dura within the military. Along with these laws which clamped down on the political opposition, Costa e Silva also announced a new Strategic Economic Program, which had the effect of further centralizing the economic powers of the federal government. First of all, as a result of a constitutional amendment crafted by Delfim Netto, the amount of federally collected taxes to be distributed to the states was reduced from 20% to 12%. Adding to the problems of the Northeast, already far behind the rest of the country in terms of economic and social development, the administration was maneuvering to assert more direct control over the budget of

SUDENE (Superintendency for the Development of the Northeast), the agency in charge of projects for the region. These actions precipitated the resignation of the hard-line nationalist Interior Minister Albuquerque Lima, as well as SUDENE's director, General Bentes Monteiro. Albuquerque Lima was distressed that the government was not going to do enough to address regional imbalances, and further continued his criticism of the government for being overly concerned with implementing policies to please foreign investors.[31] While the ministers of the Costa e Silva government, as well as the Sorbonne Group, may have been relieved to have caused the extreme hard-liners around Albuquerque Lima to leave the government, they nevertheless had to take some of their complaints into account. Even though the administration had effectively slashed the amount of resources actually earmarked for the least developed states, after Albuquerque Lima's resignation, it continued to make pronouncements about its intentions to stimulate development in the poorer regions and to address the problem of maldistribution of income. However, all told, Thomas E. Skidmore observes that the government's combination of political and economic initiatives

> ...was early proof that the authoritarian turn in December 1968 had made it even easier for Delfim and his technocrats to avoid public debate over fundamental economic and social priorities.[32]

It was at this time, however, that the economic policies of the military government began to show results. The recession that had begun with the economic crisis of the last

years of the Goulart administration, and had continued under Castello Branco, had finally come to an end in 1968. Brazil's GDP, which had been 5.4% in 1966 and 4.7 in 1967, leaped up to 11% for 1968. Industrial growth increased from 2.4% in 1967 to 13.3% in 1968 (led primarily by the automotive industry, electrical equipment and chemicals). Inflation was still high, remaining at approximately 25%, but reduction of inflation was no longer the overriding goal it had been for Campos and Bulhões. Delfim Netto had also pursued new monetary policies that helped increase Brazil's exports. He did away with the artificial fixed foreign exchange rate, which had kept the price of Brazilian goods artificially high, and often necessitated wrenching adjustments. The old system was replaced by the "crawling peg" system, which allowed for frequent but less drastic mini-devaluations, and helped make Brazilian goods more competitive.[33]

By 1969, the general political climate within the military had been moving to the right. As opposed to the strongly pro-West, pro-U.S. attitude of the Castello Branco government and the Sorbonne Group which characterized the initial period of military rule, there were growing doubts about the U.S., partly as a result of the scarcity of arms supplies, as well as the suspension of aid announced by President Johnson in the last days of his administration, as a response to growing Democratic Party criticism of the authoritarian policies of the Brazilian government. There was some hope, though, that the new American president, Richard

Nixon, would resume aid upon taking office in January 1969.
When the U.S. finally did resume aid to Brazil, several months
into the new administration, it was at significantly reduced
levels, in keeping with Nixon's "Low Profile" policy. Whereas
U.S. aid to Brazil had averaged $303 million per year between
1964 and 1968, in 1969 only $27.3 was allocated.[34]

There was also a much greater concern for internal
security at this time, especially with the rise in guerilla
and urban terrorist activity. While this was a concern of
most factions within the Armed Forces, from the Sorbonne Group
to the extreme right, there were decided differences in the
solutions offered. The Sorbonne Group favored industrial
growth as a first step in general economic developement, and
the gradual openning of the political system as the most
effective measures leading to the eventual reduction in the
attractiveness of subversive alternatives. The position of
the authoritarian and nationalist right was two-pronged. On
the one hand, they demanded continued suppression of
subversives and the weeding out of corruption, which called
for maintaining, or even increasing, authoritarian policies.
On the other hand, they took one facet of the National
Security Doctrine to its logical extreme by insisting on the
immediate integration of the less developed regions of Brazil
into the national political and economic system. Redressing
the needs of those regions, especially the Northeast, was to
come before, not after, the expansion of the nation's
industry. This put the right in confrontation with the

administration's tendency to give free rein to its economic and planning ministries.[35]

The political tensions between the various groups in the military came to a head when President Costa e Silva suffered an incapacitating stroke on August 29, 1969. The immediate concern of all _linha dura_ officers was to prevent the civilian vice-president Pedro Aleixo from assuming the presidency. The leading officers in the Costa e Silva government formed a triumvirate, comprised of the highest ranking officer from each service, to oversee the transition period. Fully aware of the tensions which existed at the time within the military, the leading generals intended to foster discussions within the officer corps in order to allow for the emergence of a suitable compromise candidate. General Albuquerque Lima began to take advantage of the interregnum by vigorously campaigning both within and without the military, much to the displeasure of the generals. The officers of the Sorbonne Group, and those most closely associated with Costa e Silva were determined to prevent the election of Albuquerque Lima. They settled on the current chief of the Secret Intelligence Service (SNI), General Emilio Garrastazu Medici, as the best candidate. Aside from indulging in behind the scenes politicking and manipulation themselves, the triumvirate eventually nominated Medici as the military's candidate, citing among other things the rather transparent excuse that only a four-star general should be considered for the prestigious post of president. General Albequerque Lima, of

course, had only three stars.[36]   Partly to assuage the
hostility of those officers who were strong backers of
Albequerque Lima, especially in the navy, Admiral Rademaker
was chosen as vice-president.   Rademaker was also known for
his strong nationalist views.[37]

As the military was determining its choice for president
and vice-president, Institutional Act 16 was issued, declaring
these offices vacant. Another new consitution was introduced
which strengthened further the power of the president, reduced
the number of representatives in state and federal assemblies,
and introduced rules enforcing party discipline in elections
and parliamentary voting. As these were put into place, the
military began to pressure the ARENA party to "nominate"
Medici and Rademaker as its candidates. Though the results of
the upcoming elections seemed to be a foregone conclusion,
Gen. Medici conducted a public campaign to present himself to
the Brazilian voters.

President Medici would serve as president during the
most impressive years of the "economic miracle." In part this
was because he continued to give free rein to his
administration's tecnicos. In an unusual move (in Brazilian
politics), he kept Delfim Netto and other high-ranking
government officials involved in economics and planning in
their posts in his new cabinet. In addition, he promoted Joao
Paulo dos Reis Velloso to Planning Minister. Medici's
administration had features which appealed to each of the
distinct factions within the military. The freedom which he

gave to his <u>tecnicos</u> helped continue the "economic miracle," which gave some prestige to the government and the military, but also fit in well with the Sorbonne Group's rational approach to economic issues. However, Medici did undertake several grand projects (likened by some to those of Kubitschek, who had been very popular in the years of populist politics[38]) which were very questionable on economic grounds, but which satisfied many of the more nationalist officers. Such projects included the initiation of the Pan-Amazonian Highway project, intended to link all of the regions of Brazil with a modern transportation network. Also, Medici's administration kept the political system closed, and even introduced a more elaborate system for high level legislation by secret decree.[39]

The "economic miracle" continued during most of the five year period of the Medici administration. During this time the arms industry continued to expand into the showpiece of the Brazilian economy. The increased nationalism of the government and the officer corps also contributed to the implementation of the first critical steps in the founding of the Brazilian computer industry, which answered the Navy's desire to modernize its equipment. The computer industry was also considered vital to Brazil's national security interests, especially because of its potential military applications.[40]

In the early seventies, the Brazilian computer industry looked very much like "one would expect in the Third World."[41] The country's market for computers was the twelfth largest in

the world at that time, not surprising considering Brazil's size. Almost all computers were imported and marketed by transnational corporations, with IBM and Burroughs as the largest corporations on the scene. But there was little if any domestic capital invested in computers, and the government had yet to formulate any policies for fostering a domestic computer industry. However the Brazilian market for computers was growing rapidly, by an average of 20% to 30% per year, partly as a result of its rapid economic growth.[42]

Seeking to modernize its fleet, in 1971 the Navy ordered six frigates from the United Kingdom. These ships were of advanced design and included a sophisticated computer system. The Navy feared that it could now become dangerously dependent upon foreign technology to maintain and operate the fleet. The admirals therefore pushed for the creation of a Special Working Group (GTE-111), funded jointly by BNDE and the Navy, to study the possibility of acquiring technology and producing computers that would meet their needs. Beginning in early 1971, GTE initiated the so-called Guaranys Project (after José Luis Guaranys, the naval officer assigned to oversee the project). GTE's plan was to create two Brazilian companies based on the tri-pé model: one to create computer systems specifically for military needs; the second to produce mini-computers for the civilian market. GTE was able to convince the British computer company Ferranti, which had supplied the original computer systems for the frigates purchased by the Navy, to enter into a technology transfer arrangement with the

newly created military-oriented DIGIBRAS. Ferranti's decision was motivated in part by its desire to stay on good terms with the Brazilian Navy -- it was not one of the larger computer firms, and hoped to be able to expand its overseas markets. The Navy preferred Ferranti because of its contribution to the newly bought ships. GTE had originally negotiated with Fujitsu for participation in the company meant to produce computers for the civilian market; but by 1974 the second project fell apart due to insufficient interest on the part of foreign and domestic investors, and DIGIBRAS took over this project as well.[43]

Government interest in sponsoring a national computer program increased as a result of the efforts by the Navy and the partial success of GTE. In April 1972, the Commission for the Coordination of Electronic Processing Acitivity (CAPRE) was created by Presidential Decree and placed under the Minister of Planning. As DIGIBRAS (reorganized as COBRA in 1974) had successfully shepherded the creation of a marketable mini-computer prototype through government funded research programs at the University of São Paulo and the Pontifical Catholic University (PUC) of Rio de Janeiro, the government undertook to protect the fledgling industry by 1974. CAPRE was given more and more decision-making power to approve government contracts for computers, and to limit imports of computers and components. Ironically, attempts to develop computer systems for naval and other military applications foundered, in part because they demanded a level of

technological expertise that Brazil had not yet reached. By the mid-seventies all government sponsored research and production was geared towards producing micro- and mini-computers for the domestic market.[44]

In 1973, the government produced its first Basic Development Plan for Science and Technology (PBDCT - 1973-74), signifying an active commitment on the part of the state for promoting research and development (R&D), technology transfer, improving the domestic market for locally produced hi-tech goods, and preparing the military for absorbing new products. The PBDCT was intended to facilitate hi-tech mdoernization in all aspects of industry, civilian and military, as well as to help initiate programs in the nuclear and aerospace fields. Much of the new research was to be pursued through the network of institutions already run by or associated with the military.[45]

Examples of the effects of government sponsorship of military industries have already been cited, such as the transfer of technicians from the government's R&D centers CTA and ITA to EMBRAER. Those technicians who had created the prototypes of EMBRAER's first successful planes were transfered to the company to oversee the mass prodcution of these units. The expansion of EMBRAER's production lines in the early 1970s were also facilitated by the government. At this time, Brazil was the largest export market for one- and two-engine civilian aircraft for U.S. firms such as Piper, Beechcraft and Cessna. Imports of such aircraft amounted to

about $10 million per year. The Brazilian government was able to exploit its lucrative market when it decided to support EMBRAER's efforts to break into the light civilian aircraft market in 1973.

The government began by imposing a prohibitive tariff on the import of light aircraft, unless a substantial amount of each aircraft were assembled in Brazil. At this point, EMBRAER sought to negotiate technology transfer agreements with the North American aircraft manufacturers. Cessna and Piper, with 59% and 24% shares of the import market respectively, agreed to negotiate, in part out of fear of losing this market. Cessna proved to be reluctant to accept the more exteme demands of EMBRAER, but Piper entered into technology transfer and co-production agreements on the Brazilian firm's terms. As soon as the EMBRAER-Piper agreement was finalized, the government tariff was increased radically, from the original 7% to 50%, with additional financial requirements on import purchases added for good measure. The EMBRAER-Piper agreement, reached in 1974, would transfer assembly in three stages. First, final assembly of planes would be done in Brazil. Next, key components would be produced in Brazil, along with the assembly of subsystems. Finally, all phases of assembly would be completed in Brazil. By 1978, Brazilian-made components would comprise 70% of each unit produced. Piper could continue to supply those subsystems and components not able to be produced in Brazil.

Piper could also restrict EMBRAER products sales in its existing markets outside Brazil.[46]

While the sales of models manufactured under the co-production agreement expanded, civilian demand for the Bandierante produced for the Air Force also grew. Additional government-cum-military support for the new industry also took the form of Air Force permission for EMBRAER to withhold planes ordered by the military so that civilian orders could be met, helping the state-controlled corporation to further establish itself in the civilian market.[47] Thus, while the government was supporting the growth of its aeronautics industry by subsidizing R&D, protecting the market, and placing orders through the military, it was also encouraging the establishment of EMBRAER's presence in the market with a growing number of civilian and military aircraft. That would eventually allow the company to compete internationally, and not remain dependent solely on domestic military contracts.

The other two main arms-producing corporations in existence in the early seventies, ENGESA and AVIBRAS (for rocket and missile rersearch and production, established before the military took power), enjoyed similar support, such as technical support from military research facilities and military orders for their products. While ENGESA, like EMBRAER, also produced products for the civilian sector, AVIBRAS was almost totally dependent upon military orders.

Though arms exports would not begin to expand dramatically until the administration of President Geisel in

the mid-1970s, the groundwork had clearly been done during the Costa e Silva and Medici administrations. But other industrial sectors had also been expanding, and manufactured exports had become a significant addition to Brazil's exports. Overall, Brazil's exports had increased from a value of $2.7 billion in 1970 to $6.2 billion in 1973. The government continued to encourage the diversification of export of commodities through the granting of a wide array of tax and credit incentives and marktet protection for producers. A by-product of this expansion was an accompanying increase in imports. These included both a greater variety of consumer goods not produced competitively in Brazil as well as increasing orders for equipment, machinery and components for the expanding industrial sector. In the same 1970-1973 period, imports increased from $2.8 billion to $7 billion, staying just a step ahead of exports.[48]

Even with the rapid expansion of the industrial economy, and some modest gains at least for urban industrial workers after Delfim Netto's modifications of Campos' and Bulhões' drastic wage formula, the country's overall financial situation was taking an alarming turn. In 1971, Brazil showed its largest trade deficit since 1947, $325 million. In addition, Brazil's international debt was growing rapidly, reaching $5.3 billion in 1970, $6.6 billion by 1972, and leaping to $12.6 billion in 1974.[49]

In another sector deemed vital to national security by the military, tensions were created which would eventually

lead to a temporary rupture in relations with the U.S. in 1977. Brazil's leaders desired to establish a domestic nuclear program, partly because of rivalry with Argentina in the one sphere in which Argenitina seemed to be leading Brazil,[50] partly because, in oil-poor but uranium-rich Brazil, nuclear technology promised not only prestige and possible future membership in the Nuclear Arms Club but also a cheap, reliable source of energy appropriate to an expanding industrial economy. In 1972, Brazil contracted with the American corporation Westinghouse to build the country's first nuclear power plant. The Brazilians, interested in acquiring not only nuclear plants, but nuclear technology, sought to pressure Westinghouse to provide them with plants including the full fuel cycle. Westinghouse was constrained by U.S. law from providing this, but anxious to keep their foothold in Brazil, offered to build more reactors on favorable terms. When India exploded a nuclear device, built with technology acquired from Canada, pressure grew within the Brazilian military to find a source for nuclear technology which would not place restrictions on technology transfer. When the U.S. Atomic Energy Commission announced later in 1974 that it could not guarantee U.S. allies (among them Brazil) supplies of enriched uranium, the search for an alternative to the U.S. was stepped up. The search would culminate in an agreement with West Germany in 1975 (the first year of President Geisel's administration) for the initial building of two reactors, to be expanded later to eight, with provisions for

cooperation in nuclear technology. The U.S. protested vehemently and tried to apply pressure on Bonn to rescind the agreement. It only succeeded in getting the Germans to insert clauses into the agreements assuring that nuclear cooperation between West Germany and Brazil would be limited to peaceful application of nuclear technology.[51]

Again suspicions were kindled among Brazilian officers about U.S. attempts to influence progress on technology acquisition vital to Brazil's national security. At this time the various factions within the military were gearing up for another succession battle, as the term of President Medici was approaching its end. However, even the Sorbonne Group, which had consolidated its support and was now in a position to assert its own candidate, was advocating a more "nationalist" stance than it had in the past.[52]

The Sorbonne Group's main concern in choosing a successor to Medici related to its fears of the ultimate results of the heavy-handed authoritarian policies of the government. Even as the threat of guerilla activity had been eliminated, the domestic intelligence agencies, under control of the more extreme hard-liners, continued to engage in repressive activites, and were carving out for themselves an autonomous sphere of activity increasingly beyond the direct control of the government. The continuation of disappearances, torture and killings at their hands began to turn important segments of society, most notably the Church, against the government, despite President Medici's personal

popularity. As the Sorbonne Group still adhered to its program of ushering in an open political system and democracy (though at the pace it thought best), it saw the continuation of repressive policies as dangerous and counter-productive.

PART III - POLITICS, POLICIES AND THE RETURN TO DEMOCRACY UNDER THE SORBONNE GROUP PRESIDENTS: GEISEL AND FIGUEIREDO

At the time that General Ernesto Geisel was chosen to succeed Medici as President, the officers associated with the Sorbonne Group had moved toward what was perceived to be a more nationalist position, due to frictions with the U. S. The officers of the linha dura were to some extent in disarray. Those who had taken the various security services of the military branches into their own hands were now seen to be threatening military discipline, in itself anathema to most of the officer corps. Furthermore, unable to be effectively reigned in, they became the focus for a growing debate within the armed forces over whether the military might be harming its own image within Brazilian society, and unwittingly undermining its own national mission and corporate interests by becoming so deeply engaged in unpopular, and increasingly unseemly, political repression. Over time more and more officers would be compelled to reassess their views on the appropriateness of such activities for the armed forces, creating a larger pool of officers calling for moderation, and eventually for a return to civilian government.

From 1969 to 1973 Geisel had been head of PETROBRAS, the state-owned company responsible for petroleum policies, imports, prospecting and distribution. While in that post Geisel had clearly shown his Sorbonne colors by resisting nationalist demands to extend PETROBRAS' monopoly control over the petrochemical industry or further expanding its control over the distribution of petroleum resources.[53] Fortunately, the Sorbonne Group was able to take advantage of the conflicts among the hard-line officers and growing public restiveness to maneuver their candidate into the presidency. Geisel moved swiftly to bring other sympathetic officers into key positions of the new administration. Among them were General Golbery, who had been president of Dow Chemical of Brazil since the end of Castello Branco's term. He was appointed head of the Civilian Presidential Staff. Another was General Figueiredo, who was appointed head of SNI, with a mandate to bring order to the various security services. Delfim Netto was replaced at the Finance Ministry by a more orthodox economist, Mario Henrique Simonsen. Reis Velloso was kept on at the Ministry of Planning. Other appointments in economic, planning and developmental posts were <u>tecnicos</u>.

Geisel and his associates were determined to bring about conditions which could lead the military back on the path originally pursued by Castello Branco: to adequately restructure the political and economic systems of Brazil so that government could be safely returned to the civilians. However, to do this, the Sorbonne Group would have to

consolidate its influence within the military and reduce the hold of the _linha_ _dura_. The Sorbonne Group began by trying to suppress subversive activities: to outflank the hard-liners from the right, as it were. At the same time, the administration solicited participation from key civilian sectors through consultations. To address some of the problems caused by the maldistribution of the nation's wealth, it created a Ministry of Social Welfare.[54]

The Geisel administration's troubles were not limited to dealing with the _linha_ _dura_, of course. The years of political repression and the increasing outrages of the military and police security services had galvanized opposition to the regime in key sectors of the populace, especially in the Church and among urban professionals (most notably lawyers and journalists). Despite the heady days of promise of the "economic miracle," the oil crisis of 1974 threatened to undermine all of the economic successes of the regime. Brazil, which imported 80% of all its petroleum needs, was reeling under the effects of the quadrupling of the price of oil. If the development of the economy were to continue at its previous rates, the government could not allow industrial production to slump due to cut-backs in oil imports. In order to maintain the inflow of oil at sufficient levels, the government chose, on the advice of international financial agencies, to borrow heavily to meet these oil needs that plunged Brazil into serious debt. Over time, assurances that the oil market would return to "normal" would prove

unfounded, and Brazil would lead the Third World into unprecedented levels of indebtedness. In 1974 alone, Brazil's foreign debt jumped from $6.2 billion to $11.9 billion, and its foreign reserves had begun to evaporate. In order to keep Brazil's investment climate attractive, the new government abolished its demands

for 40% deposits on loans, reduced the period that loans would have to be repaid from 10 to 5 years, and reduced the tax on profit remittances abroad from 25% to 5%. For the time being, Brazil's economic growth would be maintained, but inflation soared. Brazilian exports did rise by 28.2%, but imports at this time began to outstrip exports, climbing at a rate of 104%.[55]

Advances made in the arms industry provided the Brazilian government with at least one area in which it could hope to address the country's staggering debt and balance of payments deficit. Though the armed forces created the initial "demand" for its products, if the industry was to be able to sustain itself in economic terms, it would have to find a larger market. Though the government did indeed manipulate the domestic civil air system in such a way as to insure that many of EMBRAER's civilian aircraft models would also find a secure domestic market, this sector was too small. Exports were the only viable option.

Though it would be ludicrous to assert that the world-wide oil crisis was beneficial to Brazil, it did have some positive impact on the Brazilian arms industry. As EMBRAER

stood poised to begin exports in 1975, countries and companies seeking to augment their air fleets were more than usually concerned about fuel efficiency. The models which Brazil was then producing were much more fuel-efficient than the main lines of products being produced by veteran aircraft industries elsewhere. This situation contributed to EMBRAER's rapid penetration of the world aircraft market in the mid-1970s, even in the United States.[56]

The first foreign sales of Brazilian produced planes, of the Bandeirante and Ipanema type, were sold to Uruguay in 1975, representing 6% of EMBRAER's sales. In 1976, three Bandeirantes were sold to the Chilean Air Force, and three Xavantes were sold to Togo. Foreign sales took another leap in 1978 when the United States' Federal Aviation Agency certified the Bandeirante for American use. By 1979, exports accounted for 50% or more of EMBRAER's sales.

ENGESA was also beginning to export. This firm would also be unable to function economically were it to rely only on sales to the domestic armed forces. ENGESA began with exports of armored vehicles to Bolivia and Chile. Because of Chile's political isolation, ENGESA found that it had very little competition in its Chilean market, and was soon supplying that country with over half of its armored vehicles. The Chilean armed forces soon had more Cascavel's and Urutu's than the Brazilian army. ENGESA's biggest break in the 1970s came from Iraq, which ordered 400 armored vehicles from Brazil, at a price of U.S. $200 million.[57]

It is at this stage that we can see the convergence of forces which would lead to the impressive successes of the Brazilian arms and information industries. The dissatisfaction on the part of the Brazilian generals with the policies of their traditional arms suppliers had created the impetus for expanded arms production by EMBRAER and Engesa. The fears of the Brazilian admirals that unless Brazil could produce sophisticated shipboard computers it would only deepen their dependence on foreign suppliers had created the impetus for the creation of COBRA and its successors. These cases support the argument that the impetus to initiate domestic production in these areas came from the corporate needs of the military.

Yet these Brazilian industries managed to avoid many of the political and patronage pitfalls that plague other Third World state industries. In part this is attributable to the new respect for technocrats and their scientific approach to economics as well as engineering tasks on the part of the new professional officer corps. Insofar as this "professional" attitude was incorporated into the National Security Doctrine, the military government was inclined to let those most capable of guiding those programs to successful implementation, so long as their own priorities were satisfactorily met. While it is still debatable whether this approach had a beneficial effect for Brazilian society and economics as a whole, it certainly encouraged Brazil's arms and informatics industries.

As Brazil tried to find a way out of its financial straits, in the wake of the oil crisis, it had already developed an attractive tool which it was poised to exploit. It was at this point, and not before, that the straightforward economic advantages of the arms industry began to be touted as the rationale for the extensive government support given to the arms industry.

> These achievements were widely regarded as the symbol, and by some as the evidence, of a successful process of Brazilian development. Many (especially the military and the industrialists involved) anticipated that Brazil would replicate the 'successful' model of the central countries, particularly the U.S.A., and use its own arms industry as a booster and technology generator for development in all sectors.[58] Guns and Butter! This was to be the Brazilian recipe.

It was not enough to have the appropriate government support: another element had to exist for the success to come about. The existence of what Adler calls "the subversive elite" had also to be on the scene, ready to advance its own view of technological development, taking advantage of the openings provided by the military government which was anxious to reap the benefits of this elite's efforts.[59] This elite consisted of those engineers, managers, economists and other tecnicos who had evolved their own ideas about Brazil's path to technological and economic independence, and were willing to cooperate with those in power to achieve it. They were "subversive" in that their own world view did not necessarily corresponded to the prevailing official program or ideology of the government in all details, but they were determined to

weave their way into the system in order to mould the government's policies in accordance with the <u>tecnicos</u>' goals.

> If intellectuals agree with the main precepts of the established elite's ideological positions and actions and are involved in the policy-making process, then we can say that they are part of the elite - the cultural elite, as some would call them. If they disagree with the ruling elite ideologically but still influence at least somewhat the evolution of ideas and the decision-making process, they are part of the subversive elite. As the state's strength increases many technocrat-intellectuals respond to the call to 'serve the state,' producing a clear channel for the flow of subversive ideas.[60]

Members of this "subversive elite" were to be found in the various state enterprises or in the corresponding government ministries. Others were coopted in the formulation of the new financial or development agencies created by the military government, especially those which dealt with scientific and technological research and development, such as the Studies and Projects Financing Agency (FINEP), Economics and Social Planning Institute (IPEA), or the National Science and Technology Development Fund (FNDCT). They were also involved in formulating umbrella policies such as the various Economic Development Plans (PNDs) and the Science and Technology Development Plans (PBDCTs), periodically announced by the government. Some of these "subversives," such as João dos Reis Velloso, eventually assumed posts in the cabinet, which gave them additional opportunities to place valued <u>tecnicos</u> at higher levels in their ministries.[61]

With the success of EMBRAER and ENGESA serving to force more attention on the economic value of the emerging arms industry, President Geisel sought to further expand Brazil's

arms production. Taking note of the various munitions plants maintained by the armed forces, which were notorious for their inefficiency and duplication of effort, Geisel created IMBEL in July 1975 to coordinate munitions production. This new state enterprise was not sufficiently independent of direct armed forces control, and though it managed to produce sufficient quantities of small arms and ammunition to meet most of Brazil's military needs, it was not until the directorship of IMBEL passed from the hands of generals to those of an experienced civilian manager that it was able to export. In 1982 José Luis Whittaker Ribeiro, former president of ENGESA, replaced General Calderari as head of IMBEL. Aside from allowing IMBEL more freedom of action from the Army Ministry (which retained veto power over IMBEL's decision-making), this development also had other positive political effects. For example, with IMBEL now operating at what seemed to be arms-length from the military and the government, and pursuing more joint projects with private sector firms than its former generals-presidents had allowed, IMBEL could pursue export contracts with foreign countries, especially those engaged in hostilities or the targets of embargoes. So long as it could be done without directly "implicating" the regime, this allowed such traffic to take place with reduced risk of potential confrontation with the U.S. IMBEL was able to produce items to compliment ENGESA's exports, and so IMBEL was able to rapidly expand its export markets in the early 1980s.[62]

Even though the Geisel administration continued to clamp
down on political and labor dissent, pressure was growing on
the regime to open up the political system, pressure which
could also have serious economic ramifications. From the
first days of his presidency, Geisel introduced a new word
into the political vocabulary of Brazil: distençao
(decompression). His intent was to craft the political and
economic system so as to make previous economic abuses and
political excesses impossible. This was to be a gradual,
cautious process, with no promises made concerning how long it
might take. President Geisel's conception of the process was
given to his new cabinet in March 1974.

> ...We are making sincere efforts for the gradual, but
> secure completion of democracy, honest dialogue and
> mutual respect, and the stimulation of the broadest
> participation of responsible elites, and of the people
> generally, for the creation of a salutary climate for a
> basic consensus and the final institutionalization of the
> principles of the Revolution of 1964. The exceptional
> instruments with which the government is armed for the
> maintenance of the atmosphere of security and order,
> fundamental for that same socio-economic development of
> the nation without pauses of stagnation or even less of
> always dangerous retrograde steps, we wish to see them
> ... superceded by creative political imagination capable
> of instituting, when opportune, effective safeguards
> within constitutional limits.[63]

Not surprisingly, the government's intent to embark on
the road to distençao provoked reaction among the military's
hard-line as well as within the opposition. By the end of
1975 the military and police security services in São Paulo
state had stepped up their repressive activities. Accusing
opposition leaders, journalists and labor activists of ties
with the Communist Party or of subversive activities, the

security services arrested oppositionists, often torturing them before releasing them. With the murder of the popular radio journalist Vladimir Herzog in October, not only was the public aroused to protest these abuses, but the President could not allow the situation to continue. The official army report of Herzog's death called it a suicide, although this was refuted by the evidence, and rejected by the public. São Paulo witnessed waves of protests, with national opposition leaders flocking to the city. Some 10,000 assembled at the Catedral de Se for a funeral service led by Cardinal Arns, along with other religious leaders. After unsuccessfully attempting to dissuade Cardinal Arns from allowing the funeral-protest to take place, Geisel formally took the position of accepting the official report, but began to maneuver to oust the head of the Second Army, General Ednardo, a staunch hard-liner. This did not immediately end the wave of repression in São Paulo. But finally, after General Ednardo had been replaced, a second torture-murder occurred which again caused a wave of protests. This time, though again formally standing behind the "official" investigation report citing suicide as cause of death, Geisel had all officers involved in the incident transferred from their posts. By removing first Ednardo, and then the officers directly involved in the excesses of the security services in São Paulo, Geisel was able to move several steps closer to asserting his control over the anti-Castellista faction of the military.[64]

These events were happening at the time that the campaign for municipal elections scheduled for November 15 were taking place. Fearing a repeat of the electoral losses that the government suffered in the 1974 elections, the Geisel administration had already employed Institutional Act No. 5 to have several key opposition leaders dismissed from Congress earlier in the year (for "balance," some deputies from ARENA were dismissed as well, on charges of corruption).

The government adopted a policy of not allowing candidates free air time on the state-run television (embodied in the so-called Lei Falcão, after the Justice Minister Armando Falcão), since it was feared that the opposition Brazilian Democratic Movement (MDB) had successfully exploited the medium in the last elections. Nevertheless, the opposition made a strong showing in the municipal elections, winning the majority in city councils of 63% of cities with more than 250,000 citizens, almost doubling their showing in the 1972 elections. With all of the precautions taken by the government to prevent such a showing, it was determined to make further changes to guarantee that the next elections would not allow for more MDB gains in the Congress. By April of 1977 the Geisel government was able to create a political crisis as a pretext to close Congress and introduce a new set of reforms, called the Pacote de Abril (April package). On the one hand, the reform package was meant to be a sign that the government was still intent on pursuing distenção. Many of the exceptional acts were abolished, and the powers of the

President to revoke political rights or dismiss officers, functionaries or politicians were more strictly defined. On the other hand, yet another constitution was introduced which incorporated laws such as the Lei Falcão, and reduced Congressional powers. Constitutional amendments could now be passed by a simple majority (though this rule, too, would remain in place only long enough to allow the regime to make significant changes for their convenience). New senators were created, an additional one for each state. These additional senators, popularly called "bionic senators," would be elected to 8 year terms by state legislatures ,most of which were still dominated by the ARENA party. The presidential term was extended from five to six years. Elections for the president and for Congress were now to take place separately, with presidential elections to take place first. This would have the effect of guaranteeing that the next president would be chosen by a Congress elected under the Pacote de Abril rules. State, municipal and federal elections would all take place at the same time, postponing the next round of elections from 1978 to 1980. This also reduced the overall number of election campaigns (and attendant opportunities for the opposition to rally support) from one every two years to one every four. The congressional opposition seemed to accept this package, possibly because it sensed possibilities to exploit it, but also because the growing parliamentary opposition was itself split between the pessadistas, its more

accomodationist faction, and the autenticos, who were far more resistant to compromising with the regime.[65]

The results of the November 1975 municipal elections and the Pacote de Abril also gave rise to renewed criticism and activity among the linha dura officers. Unwittingly, perhaps, the actions of General Sylvio Frota, the Minister of the Army, then identified as the leader of this faction played into Geisel's hands. As the administration had proven unable to keep the opposition in line, and seemed bent upon pursuing distençao, Frota began actively recruiting support for a bid at the presidency. He even went so far as to cultivate a rather noisy "frotista" faction among ARENA representatives in Congress. By October 1977 Geisel and Golbery felt that Frota had to be dismissed. They knew that to do this they would have to proceed swiftly but carefully so as to avoid the possibility of Frota's organizing active resistance, or even a coup. They chose the weekend of October 11, a national holiday, for action, since communications and the press could be more carefully controlled. First they contacted General Fernando Belfort Bethlem, identified with the Castellistas despite his personal friendship with Frota. Bethlem was on leave in Rio de Janeiro at the time. He was offered the post of Minister of the Army, and accepted. The next day, Frota was summoned to the Presidential Palace in Brasilia. At the same time, the largest motorized infantry battalion near the capital, deemed loyal to Geisel, was put on alert. All other top level generals had been contacted, and ordered to fly to

Brasilia to meet with the President, though the reasons for the meeting were not disclosed. In the meeting that morning between Geisel and Frota, the latter was asked to resign. When Frota declined he was dismissed. Upon leaving the Palace, Frota proceeded immediately to the Vila Militar, and tried to contact the generals of the High Command. Learning that they had already been summoned to meet with Geisel, he dispatched aides to meet the Generals at the airport, in order to steer the arriving Generals to his office at the Vila Militar. Upon deplaning, many of the generals found two cars waiting for them, one sent by the President, the other by the Minister of the Army (it was not yet known he had been dismissed). Unaware of what was afoot, almost all of the generals opted, or were persuaded, to take the presidential car. On assembling at the Palace, they were introduced by the President to Bethlem as their new Army Minister. This effectively prevented the possibility of Frota organizing a counter move. Following this maneuver, Geisel had Frota reassigned, but also moved to secure the promotion of some key hard-line officers in order to placate them. The effective resistance of the <u>linha</u> <u>dura</u> declined from this point on.[66]

The year 1977 was a watershed year for the Brazilian arms industry. In the U.S., the Carter administration was actively pursuing its human rights policies, with the President demanding review of the civil rights records of those controversial regimes receiving aid from the U.S. In 1977 Brazil's military regime, along with several other Latin

American regimes, was receiving much coverage. Brazil's record was to be reviewed to see whether U.S. support should be withheld. For many within the military this was an outrage, and the Geisel administration was under tremendous pressure from its officer corps to protest what they saw as an unwarranted intrusion into Brazil's internal affairs. In general, an anti-U.S. mood had been growing within the military as a result of American efforts to interfere with Brazil's negotiations with the Federal Republic of Germany for the transfer of nuclear technology. Before the Carter administration could implement its review of Brazil's human rights record, Geisel (supported by Golbery and Figuereido in the Cabinet, among others) unilaterally repudiated the U.S.- Brazil Military Aid agreement which had been in effect since 1952.[67]

The decision was fraught with risk for Brazil. It was not clear, for example, whether this dramatic gesture might lead to the closing of North American markets to Brazil, or to serious reductions in American private sector investments. The repudiation of the agreement would not be reversed, but the government immediately took measures to soften the blow.

> It was felt that the common interests of the U.S. and Brazil called for a diplomatic reorientation with a view toward exploring possibilities for a mutual understanding. This denunciation of the military accords was followed by the mobilization of government spokesmen to explain that this should not be taken as a sign of a new belligerent attitude. On the contrary, it was intended to open a new path for a general renegotiation of military relations between the two countries.[68]

Nevertheless, within 24 hours an arms trade agreement with Libya was announced. This break in close ties with the U.S. was to result in new initiatives for arms exports to Third World countries. In the coming year, Brazil would sign a billion-dollar counter-trade agreement with Nigeria, trading arms for Nigerian oil. Arms export agreements with other African and Middle Eastern states followed, including countries such as Algeria, Angola and Iraq, which were states not in the U.S.'s favor. With fewer restraints Brazil could pursue its plans to open up Third World markets, present itself as a reliable arms supplier (now that American objections would not interfere with Brazilian deals), with the additional benefits of being able to trade directly for oil, and of exploiting arms exports as a "commercial bridgehead" (to use Dagnino and Proenca Junior's term[69]) for the export of non-military Brazilian products.[70]

Unrest within the military was not confined to the upper echelons. Among the lower- and middle-level officers there was growing dissatisfaction with the military's role in government born of the post oil-crisis economic emergency, growing corruption within an "anti-corruption" government, and impatience with repression which could only erode the military's traditional role of guardian of Brazilian society. Beginning in early 1977 a number of officers voiced their political frustration, further politicizing the military. On March 31, the anniversary of the 1964 coup, a group of colonels from the Vila Militar publicized a petition calling

for a return to democracy. With the taboo against taking such a stand apparently broken, several groups formed thereafter, with hybrid programs that broke with the Sorbonne/linha dura dichotomy which had characterized internal military politics since the establishment of the regime.

The largest of these, calling itself the Centelha Nacionalista (Nationalist Spark) was started by former duraduro colonels and lieutenant colonels. It called for a return to the barracks even as it advocated a strictly nationalist economic program. Shortly after the appearance of the Centelha two other groups formed at either edge of the political spectrum. The Movimento Militar Democratico Constitutionalista was even more strident in its call for an immediate return to democracy, though it favored economic and political cooperation with the United States. In contrast, the Movimento Popular de Defesa da Revoluçao represented the most extreme position of the hard-liners, which demanded that the military continue to hold power. Apparently sensing that this proliferation of self-defined political groups within the military had to be answered in kind, the administration launched its own group, the Movimento Revolucionario Democratico.[71]

As the behind-the-scenes plans were being drawn to assure that Geisel's chosen successor the Centelha was positioning itself to influence the outcome. By early 1977 it was clear that Geisel's choice for President was General João Batista Figueiredo, who at the time was chief of the SNI.

Figueiredo was relatively unknown outside of military circles. He was a protege of General Golbery, having been brought into Army Intelligence as early as 1958, when his mentor served as its director. Figueiredo was a distinguished graduate of the ESG, and therefore strongly associated with the Sorbonne Group. But he had also served as Chief of the Military Cabinet under President Medici, and so had experience working with many key linha dura officers. As the time approached for ARENA to nominate its presidential candidate in the upcoming elections, the Centelha tried to enlist General Euler Bentes Monteiro to fight for the nomination. Bentes Monteiro had been chief of SUDENE, and was involved in the founding of the state-owned munitions manufacturing enterprise IMBEL. This gave him solid nationalist and pro-military credentials. But he never stood out as a dynamic political force, usually having followed the line of whoever was in power. Though it seemed that Bentes Monteiro would carry the banner of the Centelha into the nominating process, as the April 1978 ARENA convention date approached and tensions rose, the General backed down from the political fray, leaving the would-be rebels without a sufficiently high-ranking figure to pose against Figueiredo. The Centelha then considered backing the maverick civilian politician Magalhaes Pinto, who was seeking to challenge the military's control of ARENA from a rightist, populist position.[72] The Centelha, unable to come to terms with any ARENA faction, moved to the opposition MDB, and again pressed Bentes Monteiro to stand for the MDB's nomination

contest. In the end, with much division and uncertainty among MDB politicians, the General was chosen as the opposition candidate.

> It was the first time such support was given to set one military faction against another. It was also the first time that a military faction had taken this decisive course to secure external [extra-corporacao] civilian support in order to defeat its uniformed rivals.[73]

Before the October elections, the government unveiled a new pacote of reforms in order to publicly demonstrate the administration's commitment to distencao while also exploiting the divisions within the MDB opposition. The new reform package, though, would take effect in March 1979, after the elections. Prior censorship was lifted on a number of periodicals; the scope of Institutional Act No. 5 was further limited; the President could no longer suspend Congress or arbitrarily remove judges and public officials from their posts; habeas corpus was restored and the death penalty was abolished. Significantly, Institutional Act No. 4, giving the President authority to issue decree laws concerning financial policy and other laws concentrating economic and developmental policy in the President's hands was left unchanged. As well, the National Security Law would still be interpreted to prohibit strikes in industries and services deemed vital to Brazil's national security.[74]

The divisions within the officer corps that appeared with a vengeance in 1978 mirrored the growing unrest in the civil sector of Brazilian society. Groups that had formerly been quieted, if not smashed, by government policies gained

new life. Activism on campuses, by students as well as faculty, reemerged. A successful wave of strikes in the industrial cities ringing São Paulo signaled the reemergence of organized labor, led by a new generation of aggressive, creative leaders who were breaking away from both the accommodating pelegos of the official unions and from the dogmatic doctrines of the ossified Old Left.[75] The Church had already shown its opposition to government policies, but was now in the forefront of broader-based movements, such as the Movimento Custo de Vida (Cost of Living Movement), and, more significantly perhaps, in the growing call for amnesty for political prisoners. The latter movement, which had its seeds in the Women's Movement for Amnesty, first appearing in 1975, had flowered into a network of Brazilian Committees for Amnesty in 1978, which held major conferences that year in São Paulo, Minas Gerais, Bahia, Ceara and Pernambuco. By the end of 1978, a Congress for Amnesty was held in São Paulo, supported by Cardinal Arns and joined by Brazil's Lawyers Guild.[76]

As the government had already committed itself to distencao, it could not ignore the growing public call for amnesty. There were attempts to enter into public discussion over the possibility of an amnesty which would cover all persons involved in the political repressions, victims and victimizers alike. It was obvious that those military and police officials most directly implicated in the repression, in tortures, disappearances and killings, were extremely

exercised over the possibility of later being called to justice. The possibility that these hardest of the hard-liners, still not fully reined in by Geisel, could throw up serious obstacles to the opening up of the Brazilian system. That worried not only the generals, but also the Amnesty movement itself. The São Paulo Congress for Amnesty, though representing an unprecedented united protest against the repressive policies of the regime, was faced with two alternatives. Some participants in the Congress were calling for an all inclusive amnesty, which would not only free political prisoners of the regime, but also limit the possibility of prosecution of military and police personnel suspected of human rights abuses. Supporters of this position were hoping to avoid antagonizing the military and thereby slowing down the restoration of civilian rule. Others demanded what they called "amnesty with justice,' which left the way open for prosecution and punishment of officers and police guilty of torturing and killing prisoners. The Congress for Amnesty was unable to take a decisive stand on the issue.[77]

General Figueiredo was elected in October 1978 and took office in March 1979 against the backdrop of declining economic conditions. Though the overall rate of growth of GDP during Geisel's administration was 7% (compared to the impressive 10.8% average of the "economic miracle" years), growth had been 5.4% in 1977 and 4.8% in 1978. Inflation had soared from its 19.3% average during the miracle to 37.9%, and

was still rising. As a result of the debts incurred after the oil crisis of 1974, imports were reduced drastically. Exports, though, were still increasing, from $7.8 billion in 1974 to $12.5 billion in 1978. Industrial production was clearly still holding its own so that in 1978 industrial exports represented more than half of Brazil's total exports for the first time. Nevertheless, the regime felt it needed to continue economic, and especially industrial expansion, in order to bolster its political position. Economic success after all was a significant part of the military's justification for having taken power.[78]

In addition to having to deal with the growing unrest among professional groups, urban labor, the Church, and the clamor for amnesty, Figueiredo had to deal with a surge in the demands of domestic business which, since 1977, had begun to attack the government for allowing foreign firms to take far too much control of the economy. In addition, the growth of the government sector, due primarily to the grandiose public projects which began under the Medici administration and continued under Geisel, also came under attack. Though the labor strife of 1978 and 1979 would bring domestic business leaders hesitantly back to a stance of supporting the regime, the military government was no longer able to take the support of this last significant civilian group for granted.[79]

Figueiredo's first cabinet appointments indicated his determination to keep the economic picture from worsening and to consolidate the gains made against the military's hard

line. General Golbery, the Sorbonne Group's leading advocate, was made head of the President's Civilian Staff. Delfim Netto was kept in the cabinet, but moved to the Ministry of Agriculture. The orthodox economist Mario Henrique Simonsen was appointed Minister of Planning. This ministry was reorganized into a "superministry" in charge of coordinating economic policies. However, Simonsen's approach, which included trying to slow down the economy in order to rectify the country's growing balance of payments problem received virtually no support from any quarter. Political and labor unrest had grown too strong for the government to be able to back such a program, when even government efforts to clamp down on strikes were stymied by businesses which showed a sudden willingness to negotiate with workers.[80] Unable to convince the military or big business to support him at this juncture, Simonsen resigned in August 1979, and was replaced by Delfim Netto. In Figueiredo's first year as President, therefore, Brazil's GDP did grow by 6.8%, reversing the decline of the previous two years, but other economic indicators were less positive. Inflation doubled, reaching 77%, the highest since the military had taken over in 1964. Brazil's external deficit climbed from $& billion to $10.5 billion. Foreign capital flowing into the country fell from %10 billion in 1978 to $6.5 billion in 1979.[81]

The major political step taken by Figueiredo after taking office was to press Congress to pass the government's amnesty package, elements of which had already been the

subject of debate before the President's election. In the Bill offered to Congress, the administration called for an amnesty for those accused of political crimes (excluding guerrillas, or others whose political crimes were accompanied by violent acts); allowing those who were dismissed from government positions to reenter public service, but with no guarantees that they would get their old posts back; and amnesty for persons accused of crimes "connected to political crimes" - a phrase understood to refer to military and police personnel involved in torture, disappearances and killings. The bill also included the establishing of formal procedures for families of the "disappeared" to petition the government for information about the fate of their loved ones.[82]

Within Congress criticism of the Amnesty Bill from the opposition was expected, but some criticism also came from the ARENA party's benches. The government's lobbying efforts in Congress involved the implied threat that if this bill were not passed, there might be little chance of the government offering a modified version later on -- it could be this bill or no Amnesty Bill. The Bill passed, but only after a great deal of debate and criticism in Congress.[83]

The military government still hoped to forestall the consolidation of the opposition's electoral strength as it struggled to get the economy back on track. For the military to be able to return to the barracks, it had to be able to insure that there would be no possibility of the economy and political system slipping back into the chaotic morass that

had precipitated military intervention in the first place. If the military had any hope of being able to achieve transition smoothly, it had to take steps to right the faltering economy. If that were accomplished, it could dampen the opposition and divide it.

After the passage of the Amnesty Bill, yet another package of electoral reforms was enacted. The two existing parties, ARENA and MDB, were to be dissolved. New parties were to be created, which must take new names, logos, mottos and symbols. The government apparently hoped that the opposition would split into two or more parties, thereby diluting their energies. Members of Congress were no longer prohibited from switching parties. As part of the enactment of the amnesty program former opposition personalities such as Luis Carlos Prestes, of the Communist Party, and Leonel Brizola, the late President Goulart's leftist-populist brother-in-law, were allowed to return to Brazil.

Though the resultant scramble to form new parties did temporarily neutralize the opposition politicians, other sectors kept the pressure on the government. Labor strikes continued, though fewer in number, through 1979 and 1980, and were met with greater military and police repression. This repression served only to galvanize more public and Church support on behalf of the new labor movement. Terror from the right also became a problem, culminating in the Rio Centro bombing incident in April 1981. Though a bomb meant to be set at a large opposition rally went off prematurely in the car of

army officers carrying it, the incident itself and the transparent cover-up created a crisis for the regime. Even Navy and Air Force members of the Military Supreme Court accused the Army of manipulating their investigation of the incident, signifying the depth of the splits within the military at this time. The crisis was hot enough to bring General Golbery to resign his post in August 1981. Though Golbery's resignation would seem to be a temporary blow to Figueiredo's efforts to rein in the hard-line extremists, events had progressed to the point where the linha dura could no longer prevent President Figueiredo from following his policy of abertura ("opening" of the political system).[84]

Brazil's GDP still grew throughout 1980, increasing by 7.2%, but inflation was reaching frightening levels, of up to 110%. Worsening balance of payments and runaway inflation would soon undermine the government's attempts to forestall the onset of a serious recession. In 1981, Brazil showed its first yearly negative growth in GDP since 1942, at -1.6%. Per capita GDP fell 4.3%. Industrial production and trade declined as well, with only the agricultural sector registering growth. Inflation was at 95.2% Brazil's external debt kept rising, from $47.5 billion at the end of 1980 to $61.4 billion at the end of 1981.[85]

By 1982, the picture was more or less the same, with slight increases in industrial growth and transportation, but a decline in agricultural growth. Inflation was at 99.7%. Delfim Netto was convinced that Brazil would have to begin to

negotiate for IMF relief, which would be anethema to nationalists of all stripes. The government was hoping to avoid having to deal with the IMF at least until after the next elections.

> The total collapse of the growth strategy outlined in Delfim's Plan III [for 1980-1986, announced in August 1979] was confirmed in 1982. It was no longer up to Brazil to 'choose' or 'reject' a recession. By late 1982 the need to stave off external default overshadowed every other economic goal. GDP, industrial production, employment, social welfare, all were subordinated to finding dollars to pay interest on the foreign debt.[86]

In January 1983 Delfim Netto produced his "letter of intent" with the IMF which, to no one's surprise, called for severe austerity measures: tightening credit; reduction of public sector expenditures and subsidies; more devaluations; and stricter controls over wages.[87] The very real threat of bankruptcy had been driven home by Mexico's economic crisis of 1982 which led that country to the brink of default. Brazil's bleak economic outlook, in connection with Golbery's resignation and President Figueiredo's own medical problems, which forced him to travel to the U.S. for heart surgery, temporarily paralyzed the administration. For the first time since 1964 a civilian was acting president of Brazil. Vice President Chaves functioned as acting president during Figueiredo's absence. In the midst of this series of crises, public political activity had begun to focus on the new Diretas Ja (Direct Elections Now) movement, the latest manifestation of public opposition to continued military rule and manipulation of the electoral process. The government

barely managed to avoid having to deal with the passage of a constitutional amendment which would have allowed for the direct election of the president when amendment-supporters failed to get the two-thirds necessary to adopt it in 1984. The combination of the growing economic crisis, serious splits within the military, and more outspoken and better organized public opposition drastically limited the President's room for maneuver, and made it virtually impossible to deviate from the path leading to the return of civilian rule.[88]

Brazil's economic performance in 1983 revealed symptoms of a deep recession. The country's GDP declined by 5% (the worst ever on record), and per capita GDP fell 7.3%. Industrial growth was -7.9%, and commerce fell 4.4%, with only agriculture showing a modest 2.1% increase. Inflation soared to new levels, reaching 211%. Though the government was maintaining policies designed to lead local investors to take loans from foreign rather than domestic lenders, in order to maintain the flow of foreign currency into Brazil, other policies, such as linking the value of government bonds to the U.S. dollar, and the inability to control runaway inflation, encouraged unproductive speculation on a wide scale.[89]

The administration's hopes that the new rules governing the formation of new political parties for the next round of elections would work against the opposition were not working out as hoped. Indeed, internal fights and personality conflicts within the government's favored party were creating openings which the opposition parties were able to exploit.

Even though the electoral college was still intact, it was becoming clear even to President Figueiredo that the next Brazilian president was not only likely to be a civilian, but also from a moderate opposition party or coalition.

With the recognition that this state of affairs required a new strategy to preserve the military's interests, the High Command began to negotiate behind the scenes to guarantee that their needs would be met.

> Paradoxically, the Brazilian military were using the civilian politicians' desire to see them out of politics in order to bargain for increased budgets.[90]

Even though the military controlled the government of Brazil, straightforward expenditures on defense needs had been declining throughout the 1970s. The military's direct share of federal expenditures had declined from over 9% in 1970 to under 3.5% in 1981. In 1981, these military expenditures represented 0.67% of Brazil's GDP, one of the lowest shares in Latin America.[91] Some critics claim that these figures hardly paint a complete picture, since the president had the authority to designate funds outside the budget by secret decree laws. Also, the direct and indirect subsidization of the arms industries does not appear in these figures. Nevertheless, as the weakness of the government's party and the strength of the opposition, under the leadership of Tancredo Neves, became apparent, the political efforts of the administration and the generals were turned toward safeguarding the corporate needs of the armed forces. According to Wilfred Bacchus, President Figueiredo

...did, in due time, decide that Tancredo Neves would not only be the nominee of the opposition but the probable winner, and privately held close consultations over the ... vital prerequisites for his (and the armed forces') support: assurances of no revanchist trials, and preservation of the fledgling armaments and informatics industries, on which the military leaders were counting to forge and assured modernization and future strength.[92]

In 1984, the last full year of military government, economic indicators were mixed. Helped by a decline in oil prices after the 1983 world oil market glut, as well as by continued governmental efforts to reduce other imports and continued efforts to sustain the drive to export Brazilian industrial products, Brazil achieved a healthy trade balance of $13.1 billion. This impressive showing was nevertheless offset by an inflation rate of 222%, and Brazil's foreign debt had reached the $100 billion mark.[93]

Finally, as the election of the next president approached, the military seemed ready to accept the election of the opposition candidate. The machinations of the pro-government UDN (formerly ARENA) candidate, Paulista politician Paulo Maluf had fractionalized the party to such an extent that its moderate wing broke away, and negotiated the acceptance of one of its leading politicians, José Sarney, as the vice-presidential candidate. It then threw its support to Neves, assuring his electoral college victory. The tragic death of Neves before he could be sworn in as President left Sarney to take the reins of government. Though Sarney had a narrow political base, having joined the opposition at the last moment and being somewhat tainted by his previous support

of the military government, he was not challenged by the military. The government passed to civilian hands after two decades of military rule.

.

ENDNOTES - CHAPTER III: INDUSTRIALIZATION POLICIES AND
MILITARY POLITICS UNDER THE MILITARY REGIME

1. Examples include: Maria Helena Moreira Alves, State
and Opposition in Military Brazil (Austin TX: University of
Texas Press, 1985); Jose Comblin, Doctrina de Seguridad
Nacional (San Jose, Costa Rica: Editorial Nueva Decada, 1988);
Jorge A. Tapia Valdes, El Terrorismo de Estado: La Doctrina de
la Seguridad Nacional en el Cono Sur (Mexico City: Editorial
Nueva Imagen, 1980).

2. Such views are expressed in works such as : Luiz
Bresser Pereira, Development and Crisis in Brazil: 1930-1983.
(Boulder CO: Westview Press 1984); Ignacio Rangel, Economia:
Milagre e Anti-Milagre (Rio de Janeiro: Jorge Zahar Editora,
1985).

3. John W. F. Dulles, Vargas of Brazil: A Political
Biography (Austin, TX: University of Texas Press 1967) p. 339.

4. A. Gauthier and J. Domingo, Le Bresil: Puissance et
Faiblesse d'un Geant du Tiers-Monde (Paris: Breal Editions,
1988) 75-76.

5. Stefan H. Robock, Brazil: A Study in Development
Progress (Lexington MA: Lexington Books, 1975) 29-30. Also
Gauthier and Domingo, Le Bresil 78-80, 117.

6. Luiz Bresser Pereira, Development pp. 30-45. See
also Glaucio Ary Dillon Soares and Nelson do Valle Silva,
"Regime Politico e Crescimento Economico no Brasil, 1945-1984"
Dados 32.1 (1989) 137-8. These authors argue that when viewed
as yet another part of the cycle, the years of military rule,
1964-1985, exhibit the same general features as the Vargas and
the Kubitschek periods: impressive industrial growth, followed
by runaway inflation and foreign debt. After the "economic
miracle," inflation and foreign indebtedness ultimately far
exceeded levels reached under the Goulart regime.

7. Donald Syvrud, Foundations of Brazilian Economic Growth (Stanford CA: Hoover Institution Press, 1974) pp. 38-39; Luiz Bresser Pereira, Development pp. 133-139.

8. Georges-Andre Fiechter, Brazil Since 1964: Modernization Under a Military Regime (New York: John Wiley & Sons, 1975) p. 56.

9. Feichter, Brazil, p. 46.

10. Alves, State and Opposition, pp. 52-53.

11. Syvrud, Foundations, pp. 46-48.

12. Thomas E. Skidmore, The Politics of Military Rule, 1964-1985 (New York: Oxford University Press, 1988) pp.36-39.

13. Bresser Pereira, Development, p. 119.

14. Bresser Pereira, Development, pp 120-121.

15. Emanuel Adler, The Power of Ideology: The Quest for Technological Autonomy in Argentina and Brazil (Berkeley: University of California Press, 1987) pp. 108-110.

16. Adler, Power, pp. 183-195; Alves, State and Opposition, pp. 44-45.

17. Feichter, Brazil, pp. 118-123; Skidmore, Politics, pp. 50-59.

18. Feichter, Brazil, pp. 50, 80-83; Daniel Zirker, "Civilianization and Authoritarian Nationalism in Brazil: Ideological Opposition Within a Military Dictatorship," Journal of Political and Military Sociology 14,2 (Fall 1986) pp. 266-269.

19. Skidmore, Politics, pp. 49-50.

20. Skidmore, <u>Politics</u>, pp. 67-69.

21. Bresser Pereira, <u>Development</u>, pp. 137-139; Skidmore, <u>Politics</u>, pp. 69-71, 85-92; Syvrud, <u>Foundations</u>, pp. 44-46.

22. Syvrud, <u>Foundations</u>, p. 45.

23. Skidmore, <u>Politics</u>, pp. 81-84.

24. Skidmore, <u>Politics</u>, pp. 83-84.

25. Ethan B. Kapstein, "The Brazilian Defense Industry and the International System," <u>Political Science Quarterly</u> 105,4 (Winter 90-91), pp. 579-596.

26. Clovis Brigagão, "The Brazilian Arms Industry," <u>Journal of International Affairs</u>, 40,1 (Summer 1986), pp. 104-105; Renato Dagnino P., "A Industria de Armamentos Brasileira: Desenvolvimento e Perspectivas," <u>Armamentismo e o Brasil: A Guerra Deles</u>. ed. Ricardo Arnt (São Paulo: Editora Brasiliense, 1985) pp. 73-74.

27. Patrice Franko Jones, "The Brazilian Defense Industry: A Case Study of Public-Private Collaboration," diss. University of Notre Dame, 1986, pp. 136-140.

28. Irene Maria Magalhaes, Maria Aparecida Alves Himes and Nancy Alessio, "Segunda e Terceira Anos do Governo Costa e Silva," <u>Dados</u> 8 (1971) pp. 209, 228.

29. Franko Jones, "Brazilian Defense Industry: Case Study," pp. 96-99; Rexford A. Hudson, "The Brazilian Way to Technological Independence: Foreign Joint Ventures and the Aircraft Industry," <u>Inter-American Economic Affairs</u> 37,2 (Autumn 1983) p. 25.

30. Franko Jones, "Brazilian Arms Industry: Case Study," pp. 70-74, 83-84, 98-99; Hudson, "Brazilian Way," pp. 26-31.

31. Skidmore, <u>Politics</u>, pp. 84-90, 163-169.

32. Skidmore, Politics, p. 90.

33. Bresser Pereira, Development, p. 139; Skidmore, Politics, pp. 89-92.

34. Wilfred A. Bacchus, "Long-Term Military Rulership in Brazil: Ideologic Concensus and Dissensus, 1963-1983," Journal of Political and Military Sociology 13,1 (Spring 1985) pp. 118-119; Skidmore, Politics, 101-104.

35. Zirker, "Civilianization," pp. 265-267.

36. Skidmore, Politics, pp. 98-99.

37. Feichter, Brazil, pp. 171-173.

38. Gauthier and Domingo, Le Bresil, p. 88.

39. Feichter, Brazil, p. 187; Skidmore, Politics, pp. 108-110.

40. Adler, Power, pp. 245-246; Peter B. Evans, "State, Capital, and the Transformation of Dependence: The Brazilian Computer Case," World Development 14,7 (July 1986) pp. 792-793.

41. Evans, "Stae, Capital," p. 792.

42. Adler, Power, pp. 238-239, 259; Evans, "State, Capital," pp. 792-793.

43. Adler, Power, pp. 245-247; Evans, "State, Capital," pp. 792-795.

44. Adler, Power, pp. 246-250; Evans, "Stae, Capital," pp. 793-795.

45. Evans, "State Capital," pp. 793-794; Franko Jones, "Brazilian Arms Industry: Case Study," p. 109.

46. Franko Jones, "Brazilian Arms Industry: Case Study," pp. 128-133.

47. Hudson, "Brazilian Way," pp. 26-27.

48. Skidmore, Politics, pp. 139-141.

49. Feichter, Brazil, pp. 200-203; Skidmore, Politics, pp. 141-142.

50. See Adler's comparison of the Argentinian and Brazilian programs in Adler, Power, Chap. 11, "The Quest for Nuclear Autonomy in Argentina and Brazil," pp. 280-326.

51. Skidmore, Politics, pp. 193-194.

52. Walter de Goes, O Brasil do General Geisel: Estudo do Processo de Tomada de Decisão no Regime Militar-Burocratico (Rio de Janeiro: Editora Nova Fronteira, 1978) pp. 163-165; Skidmore, Politics, p. 194.

53. Skidmore, Politics, p. 161.

54. Wilfred A. Bacchus, Mission in Mufti: Brazil's Military Regimes, 1964-1985 (New York: Greenwood Press, 1990) pp. 105-107; Skidmore, Politics, pp. 161-164.

55. Skidmore, Politics, pp. 178-180.

56. Renato Dagnino and Domicio Proenca Junior, "Arms Production and Technological Spinoffs," Paper presented at Latin American Studies Association Conference, New Orleans 1988. Mimeo. p.14; Franko Jones, "Brazilian Arms Industry: Case Study," pp. 148-150.

57. Franko Jones, "Brazilian Arms Industry: Case Study," pp. 164-168.

58. Proenca Junior, Domicio. "Guns and Butter? Arms Industry, Technology and Democracy in Brazil." Bulletin of Peace Proposals. Vol. 21 (1) March 1990, pp. 49-57.

59. Adler, Power, pp. 83-100.

60. Adler, Emmanuel, Power, p. 90.

61. Adler, Power, pp. 162-165, pp. 211-213; Franko Jones, "Brazilian Arms Industry: Case Study," pp. 109-113.

62. Franko Jones, "Brazilian Arms Industry: Case Study," pp. 88-94.

63. Quoted in Bernardo Kucinski, Abertura, a Historia de uma Crise (São Paulo: Editora Brasil Debates, 1982) p. 20. [Author's translation]

64. Bacchus, Mission, pp. 106-7; Kucinski, Abertura, pp. 48-50.

65. Kucinski, Abertura, pp. 58-64.

66. Goes, O Brasil do General Geisel, pp. 73-102; Kucinski, Abertura, pp. 67-73.

67. Goes, O Brasil do General Geisel, pp. 37-38; Skidmore, Politics, pp. 194-200.

68. Goes, O Brasil do General Geisel, p. 170. [Author's translation]

69. Dagnino and Proenca Junior, "Arms Production," pp. 40-41.

70. Dagnino, "Industria," pp. 73-74; Franko Jones, "Brazilian Arms Industry: Case Study," pp. 167-168; Goes, O Brasil do General Geisel, pp. 163-166.

71. Kucinski, Abertura, pp. 74-78.

72. Kucinski, Abertura, pp. 76-79.

73. Kucinski, Abertura, p.83. [Author's translation]

74. Kucinski, Abertura, pp. 89-92.

75. Emir Sader and Ken Silverstein, Without Fear of Being Happy: Lula, the Workers Party and Brazil (London: Verso, 1991) pp. 14-16.

76. Kucinski, Abertura, pp. 111-112.

77. Kucinski, Abertura, p. 112.

78. Skidmore, Politics, pp. 202-3.

79. Kucinski, Abertura, p. 128; Skidmore, Politics, p. 201.

80. Skidmore, Politics, pp. 212-215.

81. Skidmore, Politics, pp. 212-216.

82. Kucinski, Abertura, pp. 134-135.

83. Kucinski, Abertura, p. 136.

84. Bacchus, Mission, pp. 121-124; Kucinski, Abertura, p.162; Skidmore, Politics, pp. 227-229.

85. Kucinski, Abertura, pp. 150-151; Skidmore, Politics, pp. 230-233.

86. Skidmore, Politics, p. 236.

87. Bacchus, Mission, pp. 119-120; Skidmore, Politics, p. 237.

88. Bacchus, <u>Mission</u>, pp. 120-124.

89. Skidmore, <u>Politics</u>, pp. 236-240.

90. Skidmore, <u>Politics</u>, p. 240.

91. Skidmore, <u>Politics</u>, pp. 239-240.

92. Bacchus, <u>Mission</u>, p. 126.

93. Gauthier and Domingo, <u>Le Bresil</u> 178-182; Skidmore, <u>Politics</u>, pp. 240-241.

CHAPTER IV: IDEOLOGY AND THE BRAZILIAN ARMS INDUSTRY

The key events and policies of the Brazilian military government presented in the preceding chapter must now be analyzed to determine the extent to which the National Security Doctrine or the corporate ideology of the military influenced these outcomes. For the most part, the opposition between these two ideological trends within the military is sharpest and most illustrative during transitional episodes, as when a new president is chosen. Nevertheless, factional rivalry within the military was continuous throughout this period. As well, a certain consistency in economic and developmental policy was maintained throughout the period, sometimes in spite of the wishes of the majority of officers. The reasons for this consistency are particularly important to the study of the role of ideology in the development of the arms industry under the military regime.

The central questions to be raised in this analysis include the following: Was the 1964 coup itself initiated in order to impose a system based on the National Security Doctrine on Brazil? Though this work asserts that the answer to this question is "No," the examination of the evidence will reveal the importance of the military's corporate interests to all factions of the military. It will also illuminate the background which helps explain the policies of the first

military administration (which was arguably the one most closely tied to the National Security Doctrine), and the subsequent rise of the linha dura faction.

How did ideological priorities affect the policies undertaken by the various administrations, especially with regard to the establishment and management of defense and related industries? While each of the five administrations in this period can be identified as belonging to one of the two pre-eminent military factions, each administration undertook policies which clearly influenced the range of policy options available to subsequent administrations. It is significant, for example, that military industries per se were not a priority for the first Sorbonne Group administration. The first hard-line government had made the development of the arms industry a high priority. When the Sorbonne Group re-established control after two hard-line administrations, the new arms industry was already blooming. Though ideological priorities may have changed, the subsequent moderate administrations continued to accord the arms industry priority status, if for different reasons.

How and why did the civilian tecnicos penetrate governmental planning agencies and the defense industry? Why were they often able to overcome the resistance of the officer corps and influence the success of the arms industry? Among Third World arms producers, the role which the emerging domestic technocratic class plays in defense industry development is crucial. This factor relates not only to the

successful nurturing of the arms industry itself, but also to the policies which affect such policy goals as technological spin-off and the integration of the arms industry into the national economy as a whole. In the Brazilian experience, these tecnicos did play an important role. It will be demonstrated that their successes in Brazil were due in no small part to the convergence of their corporate ideology with that of the Sorbonne Group.

PART I - FROM UNITY TO FACTIONALISM

The decision on the part of the Brazilian generals to move against the Goulart regime appears not to have been the result of long-term planning. The fact that many in the officer corps were nervous about the direction of Goulart's populist-leftist administration is clear. Some officers (and some civilian politicians) were urging that action be taken to prevent Goulart from taking power after the sudden resignation of President Quadros in 1961. Such action was prevented by the top brass, though joint pressure from the military and civilian opponents of Goulart was able to force a compromise through which Goulart assumed the presidency, but over a parliamentary form of government which limited presidential powers. At this juncture, the military commanders, while still exercising political clout, were concerned to honor democratic procedures. In acting to suppress pressure for a preventative coup and in guaranteeing Goulart's assumption of

the presidency, the military leaders were representing the predominantly legalist sentiments of the officer corps at that moment. By adding their weight to the effort to legally modify the political system so as to limit the president's power, they were acting upon the disquiet in the officer corps concerning Goulart's personal ambitions and ability to introduce more populist policies. At this point, both the legalist consensus among the officers and their specific worries about the current direction in Brazilian politics were apparent. The higher officers who would soon be involved in running the military government were those who at this juncture were successfully urging restraint, with only a small number urging intervention. The common denominator in 1961 between those officers associated with the Sorbonne Group and those who would later be identified as the linha dura was the need to assure that the military continue to play its proper role in the Brazilian system, as guardians of the state and constitution. The determination to allow Goulart to become president while legally modifying presidential power satisfied these concerns, at least temporarily.

Goulart and his associates continued to act in such a way as to alarm the military. By 1963 the president had successfully engineered a plebiscite which overturned the compromise of 1961 and re-established a strong-presidential system. In the eyes of the military, as well as of a growing number of centrist and conservative politicians and voters, the administration was encouraging social and labor unrest and

pursuing dangerous economic policies. Such a situation would be worrisome enough for the military, for whom social stability was a prerequisite for security. The Goulart administration's efforts to encourage non-commissioned officers and enlisted men to struggle for more political rights, to organize their own unions and political groups, in short, to agitate for a change in the very structure of the military institution smacked of insurrection and threatened to weaken the armed forces. It was in reaction to these last moves that some generals, without prior consultation with the national military command, began to march on the capital. This forced the hand of the chiefs of staff and the chiefs intervened to oust the civilian government, rather than to quash the coup attempts launched by precipitous officers, as had been done in 1961. The bulk of officers who in 1961 were inclined to support the legalist actions of their commanders had now become sufficiently alarmed at the threat posed by Goulart to Brazil's social stability and to the integrity of the armed forces to follow their commanders in ousting the populist regime.

If the events which precipitated the coup of April 1964 can be ascribed to the actions taken by the Goulart government which directly threatened the integrity of the armed forces, then the basic motivation of the coup is to be found in the corporate interests of the military. Therefore, it cannot be asserted that the coup took place solely, or primarily, in order to impose a National Security regime on Brazil. The

officers most closely associated with the National Security Doctrine were those in command at the time, but it would seem that the actual decision to act was precipitated by the more rash commanders of the regional armies, specifically from Minas Gerais and the North. Significantly, the Third Army, based in Rio Grande do Sul, the home state of Goulart and Brizola, was not involved in the initial push against the civilian government. The high command acted in response to the regional mobilizations, accurately reading not only the agitation of the regional commanders, but also the exasperation of the officer corps in general. By so doing, the high command, with Generals Castello Branco and Golbery do Couto e Silva at the helm, put themselves in the position of directing the interim military government. This is what the rebellious regional commanders wanted. But they wanted this not in order to allow Castello Branco and Golbery to install a National Security regime, but so that the armed forces would act in unison and throw the full weight of the military against Goulart and his allies.

The contention that the military was at this point acting on the basis of its corporate interests, rather than on the basis of the National Security Doctrine is an important one. Though a distinction has been made between those officers closely associated with the National Security Doctrine and those whose actions and policies are attributable not to the doctrine but to the corporate ideology of the military, both groups have a concern to preserve the corporate

interests of the military. Furthermore, both groups viewed the interests of the military as coinciding with the interests of the Brazilian nation. In the highly charged atmosphere of 1964, the views of the leadership of both groups converged. Although the views of the various factions would diverge afterwards, the overwhelming majority of the officers were for the coup.

The above contention is further strengthened by the policies pursued by the Castello Branco regime. Castello Branco was prepared to govern Brazil for at least two years, rather than prepare to turn over the government to an acceptable civilian regime after a brief transition period. To get Brazil's economy in order, he appointed as ministers civilians associated with the National Security Doctrine. He issued institutional acts depriving troublesome politicians (of the right as well as of the left, to the surprise of some civilian supporters of the coup) of their political rights, and began to draft a new constitution which was intended to bless Brazil with a more responsible political and economic system. Nevertheless, Castello Branco and his chief advisor Golbery fully intended to restore civilian rule by 1966, and to conduct and honor democratic elections at the state and local level in the interim.

Castello Branco and Golbery acted in accordance with their belief that given a push in the proper direction, Brazil could begin to move onto the path of development called for in the National Security Doctrine. They would not have taken

direction of the coup (albeit belatedly) nor imposed a military government if they had not felt that the democratic regime was defective and its leaders irresponsible. Obviously steps would have to be taken to guarantee that when the military returned to the barracks, they would leave behind a more stable system less prone to being hijacked by irresponsible leaders. While the president's conception of democracy is certainly open to critique and debate, it is nevertheless evident from Castello Branco's policies that he took democracy to be important. In the vigorously anti-communist doctrine to which he was loyal, democracy was one of the principal characteristics of the West to which Brazil was naturally allied. The treatment of democracy in the doctrine is ambiguous and contradictory. The doctrine's emphasis on the psycho-social aspect of the nation, set in the context of a new type of global warfare instigated by the Soviet Union which used subversion as its weapon of choice, was treated at much greater length than the outlines of the ideal democratic system. Democracy was often invoked as a value, but with little clarity as to what democracy was and how it should function. In the struggle to win the hearts and minds of Brazilians, the psycho-social warfare against communist subversion was clearly the top priority. The cassation of leftist officers, the removal of political rights of alleged irresponsible politicians of whatever political stripe, and the tailoring of a new constitution in camera were all non-democratic actions taken by a leadership which assumed that

the Brazilians had proven that they were not ready for democracy. Brazil's new democratic system would have to be so designed as to prevent abuses by an immature population. An interesting parallel may be drawn here to Emperor Pedro II, who was also assumed to value democracy, but at the same time felt that Brazilian society was not yet mature enough to live by its rules without enlightened direction from above. Hence Pedro II's habit of engineering small political crises in order to allow the two major parties equal opportunities to practice governing.

It was not only Castello Branco's goal that some form of democracy, however elitist, would be restored within two years. It was his assumption. Neither Castello Branco nor Golbery anticipated the rise of the linha dura within the officer corps. The administration's insistence that scheduled elections be held on time and their results honored is evidence that, though there was considerable manipulation, its commitment to a return to democracy was deeply held. It was precisely this commitment that brought the ruling Sorbonne Group into conflict with the hard-liners.

The threat of a coup by the hard-line officers brought General Costa e Silva into the presidency in the spring of 1967. Whereas Castello Branco had been trying to steer the military back to the barracks, Costa e Silva created a cabinet composed primarily of hard-line military officers. Significantly, the two key ministries of Finance and of Planning were given to civilian tecnicos, Antonio Delfim Netto

and Helio Beltrão. The former had strong links to the Escola Superior de Guerra in the pre-coup years.

In its first two years the Costa e Silva administration was caught between the expectations of the restive officers who had feared that the military would relinquish political control before the nation had been sufficiently purged of conniving politicians and subversives, and the expectations of the public that Costa e Silva would begin to open up the political scene. Though the new president was reluctant at first to directly clamp down on opposition activity, it was at this time that death squads began to emerge. With strikes and demonstrations, as well as increasing activity on the part of self-styled revolutionary groups increasing in 1967 and 1968, and with the <u>duraduro</u> officers he purportedly represented becoming restive again, Costa e Silva cracked down on dissent with a vengeance in the latter part of 1968.

Significantly, both before and after this crack-down, it was the policy of the administration to give a great deal of leeway to its ministries dealing with economics and finance. Considering the traditional ambivalence of officers toward civilians, why should this have been so? When President Castello Branco reshuffled his cabinet in January 1966, he pointedly appointed some politicians as ministers. He did this in part to gain for his government more legitimacy in the eyes of Brazil's political elite and public opinion, perhaps with the idea of increasing the likelihood of a smooth transition and continuity of policy in the event of a return

to civilian rule. When the revolt of officers provoked the crisis which brought Costa e Silva into the presidency, no traditional politicians were included in the new cabinet. The civilians who were included were tecnicos, economists and planners. Here the animosity harbored by the military toward the civilian leaders whom they saw as having brought Brazil to the brink of disaster was mitigated by the respect that these officers had for experts who, even if civilians, could be counted upon to bring a dispassionate scientific approach to their formulations of policy. Such non-political tecnicos under Castello Branco, namely Campos and Bulhões, though falling short of the goals they set for themselves, nevertheless seemed to have achieved some success in bringing order to the economy. Delfim Netto, less orthodox than his predecessor Campos, was for this very reason somewhat more acceptable to the nationalist officers. The strongly nationalist hard-line officers were still suspicious of unrestricted foreign investment. They expected that their new president would appoint tecnicos who would be less likely to kow-tow to foreign corporations. Though foreign investment would continue to play a central role in Brazilian development during the hard-line administrations, at this point, the temporary eclipse of the Sorbonne Group provided Delfim Netto with breathing space.

Costa e Silva's administration came to power as a direct result of the political demands of the officer corps. Feeling that not enough had been done to guarantee that chaos and

corruption wouldn't return, they demanded that their generals retain control and continue to purify the country. This was the chief mandate of Costa e Silva. Economic progress was important to the officers, but as the military had focused itself on fighting a new sort of war against subversion, this being its primary task, it was able to leave much of the formulation of economic policy to civilian technicians. In fact, according to Georges-Andre Fiechter:

> The more Costa e Silva had to cope with rebellions, the more heavily he would rely on his technicians of the economy, giving them ever wider powers, in the hope of bringing about the economic miracle which, when it came, might swing public opinion in favor of the Government.[1]

This divergence of focus created a unique political space for the convergence of the plans and goals for three key groups. At this time the Sorbonne Group found itself temporarily eclipsed by the hard-liners. Nevertheless, they had succeeded in laying critical groundwork which would insure their continued influence. This included the extensive efforts made to disseminate their doctrine throughout the military and even into civilian circles, as well as the relative success of the economic policies implemented during the Castello Branco administration. The Sorbonne Group would have to wait almost eight years before they would regain the presidency, but they remained an influential bloc. The linha dura, primarily concerned with internal conflict, now provided the impetus behind the specific policies launching the arms industry. Their specific corporate interests would be met by a self-sufficient domestic arms industry. They would also

stand to benefit politically from an increasingly productive economy. As long as the tecnicos whom they entrusted with the latter task produced positive results, the duraduros could focus on the struggle against subversion and corruption, while strengthening their legitimacy. As for the "subversive elites" described by Adler, while they may have been uncomfortable with the repressive politics of the regime, they nevertheless sensed the opportunity to play their part in setting Brazil firmly on the track of modernizing the economy and its industrial and technological base. In this, they were perhaps closer to the Sorbonne Group, and so could build upon the framework these more moderate generals had laid. At the same time, while pursuing their modernizing goals, they appeared to satisfy the goals of the military by producing an advanced military industry, as well as making inroads in computer and nuclear development. For a brief period, a fourth group, those nationalist officers of the populist right, such as Albuquerque Lima, who saw development not as a dispassionate scientific enterprise, but as a moral imperative for uniting Brazil and ameliorating the plight of its poorest citizens also found themselves in this political space. Though this situation was also fraught with contradictions, it helps to explain why the administration which came to power at the insistence of the linha dura would give its ministries concerned with development a relatively free hand.

There is no doubt that the tecnicos were able to achieve their initial successes because they were able to implement

their policies in a closed society.[2] The opportunity for those hardest hit by those policies to register their complaints were severely limited. Politically, the <u>tecnicos</u> needed only to worry about the response of the military. As long as their economic policies appeared to be working to the satisfaction of the military, not only would they be able to continue on, but the opportunities to deepen their approach by bringing more <u>tecnicos</u> into their ministries and agencies would be prolonged.

Before Costa e Silva assumed the presidency some of the initial steps for the establishment of the arms industry had already been taken. However, these first steps were part of an overall economic and development program. The recession which began in the early 1960s, and persisted into the first years of the military regime had created a situation wherein large sectors of the industrial sector were idle. The government's plans to get Brazilian industry back on its feet would include the exploiting of this idle excess capacity. Government contracts and funding, including those for basic military equipment, would get these factories producing again. The combination of new planning directives developed jointly by private and government (mainly military) agencies, the creation of research institutes, the need to make use of excess industrial capacity, and the increasing scarcity of military supplies coming from Brazil's traditional supplier, the U.S., had already tilted the emphasis of the new growth toward defense needs. At this early stage, production was not

yet geared toward the sophisticated, hi-tech production which would characterize the Brazilian arms industry during and after the years of the "economic miracle."

The remarkable leap forward of the Brazilian arms industry occurred at the time that the so-called "economic miracle" also took off. However, it was not the case at this time that the government pursued arms development mainly in order to jump-start the economy out of recession. As will be shown below, much of the ideological justification of using the arms industry as the engine of development would come after the fact.

This is not to say that the efforts and resources which the two hard-line administrations of Costa e Silva and Medici put into the arms industry had no salutary effect on the economy. Stimulation of arms production did play a part in the miracle.

> This does not imply, however, that the national defense industry's growth was due solely or explicitly to the success of the military government's general economic policies. Rather, it was assumed from the start that the nationalization of the defense industry would be accomplished at whatever cost to the rest of the economy.[3]

The Castello Branco government had begun to stabilize the economy, had created several financial and research institutions intended to stimulate domestic technological advances that would benefit industry in general so as to put Brazil on the path of rapid economic advancement, and had redirected funds and government contracts so as to take advantage of the excess productive capacity made idle by the

recession. It had also initiated certain programs, especially in housing, that would serve both to create employment and to move toward ameliorating some chronic social problems. The overall thrust of the first military administration followed the general principles of development found in the National Security Doctrine, but also reflected Castello Branco's and Golbery's expectations that the military government had just over a year and a half to put Brazil's house in order before the government would be handed back to the civilians.

The Castello Branco regime was clearly authoritarian, and it initiated both the policies of fighting subversion and corruption and of strictly controlling wages and other worker benefits to the advantage of capital. Since the Estado Novo, and throughout the post-war democratic-populist period, the Brazilian system was organized along corporatist lines. Though labor unions, peasant unions and producers' groups had become more restive by the late 1950s and early 1960s, they nevertheless continued to exist and to operate under the aegis of the government, with union officials approved by the government, and union funds administered through the Labor Ministry.[4] The Castello Branco administration re-instituted a more rigid corporatist structure through which the government began to favor the federations of manufacturers and to put an end to the militant and independent tendencies of labor and peasant unions. This was also consistent with National Security Doctrine principles. First of all, the doctrine viewed any movement which sought to divide the nation

as pathological. In this it saw the more militant leaders of the workers and peasants as subversives to be rooted out. The majority of workers and peasants, led astray by their leaders, had to be brought back under the patronage of the state. Secondly, it was necessary to stimulate the industrial sector. To do this, the government had to adopt a role toward industry and domestic capital which had features both of patronage (since these sectors were still immature) and of partnership (since it was these sectors, rather than the state, which should ultimately take the lead in modernizing the economy).

The Brazilian economy was beginning to emerge from its recession when the hard-line administrations took over. The foundations laid by Castello Branco were built upon, but the focus of the Costa e Silva and Medici administrations became more and more focused on the arms industry for its own sake. In their policies they seemed to show they were less concerned with the niceties of the National Security Doctrine (though they continued to pay it lip service). The intolerance of opposition of any sort and the labelling of all such opposition as subversive, to be rooted out with a vengeance was one key. Castello Branco and Golbery had been trying to groom a "responsible" opposition to play its part in what was supposed to be a return to civilian rule after January 1966. This policy was in line with the distinction between a subversive opposition (which seeks to destroy the State and disrupt society) and a responsible opposition (which articulates legitimate policy alternatives), and with the

preference for some sort of democratic system, however ambiguously defined, inherent in the National Security Doctrine. The hard-liners, by contrast, moved in the opposite direction. They deepened the involvement of security services in suppressing the opposition. The illegal activities of the death squads intensified as did such activities of quasi-independent regional military and police anti-subversion units, which were at least tolerated, if not encouraged by the regime.

In the realm of the economy the needs of the military also took precedence. It was not merely a case of the military regime taking advantage of the jump in production to replenish its stocks of materiel. More and more of the national budget was devoted to the development of the arms industry. These increases were not readily apparent in the budget of the armed services per se. However, beginning with 1970, such government agencies as FUNTEC (Fundo Nacional de Desenvolvimento Cientico-Tecnologico) received increasingly larger budget outlays, which would total $1.5 billion by the end of the decade. By the mid-1970s half of this agency's funds went to research and development in state-owned enterprises. Overall government expenditures for support of research and development exceeded $3 billion for the decade. As a percentage of the annual budget funding grew from 0.84% in 1970 to 2.2% by 1979, and would continue to grow into the early 1980s.[5] Brazil has often been cited for unusually low expenditure on its military services, with military

expenditures as a percentage of GDP actually declining from 1.4% in 1972 to 0.8% by 1980.[6] There is reason to believe these figures are misleading. According to the Stockholm International Peace Research Institute:

> The problems of estimating Brazilian military spending are particularly vexing since published data do not seem to match the size and activity of the Brazilian forces. Military spending falls under a number of budget heads beyond those of the Army, Navy and Air Force. These include the Presidential budget, the Ministry of Justice (...for the paramilitary federal police), some part of the nuclear energy budget and a pension commitment which is presumably large in view of the numbers of professional personnel employed by the armed forces.[7]

The presidential budget is further obscured by secrecy, as the military government often resorted to secret presidential decrees to allocate finances to priority projects, whether for defense related production[8] or for the activities of internal security agencies.[9]

In addition, because of the successes of the arms industry, actual military outlays for foreign equipment declined. These were replaced by domestically produced equipment. By the mid-1970s up to 60% of the equipment used by the Brazilian military was locally made.[10] Though the lower price-tag on domestically produced arms may have helped to keep military budgets down, the lower prices paid by the military do not reflect the subsidies, research and development investments, forgone tax revenues and other outlays of the government as a whole.[11]

It was under the hard-line presidents that the shortage of new equipment from the U.S., primarily as a result of

increasing U.S. military involvement in Southeast Asia, became alarming to the Brazilian officer corps. The confluence of events at this point: reduced military supplies from the U.S.; aggressive search for new markets on the part of European arms manufacturers; and the manifestations of the efforts of the Castello Branco administration to revive Brazilian industry; all created the context for the Costa e Silva administration to channel its efforts to building an arms industry. Though these events made the choice of concentration on arms production particularly attractive, it was the conscious choice of the military regime, which now had rejected all timetables for relinquishing political power to civilians, to make arms production a priority.

Had political control in fact been returned to the civilians, as Castello Branco and Golbery had envisioned, there would have been mechanisms in place not only to ensure a stable democratic regime, but that would also have continued Brazil's post-war tradition of giving the government a strong role in economic policy. Under this model, the Brazilian economy would still have been subject to the give and take of the market, and industrialization would have continued on the basis of competition for markets and meeting domestic and foreign demand. The government would still have given some direction and set priorities. The framework for directing the building of housing units established by the first president would be such an example. It is also possible that the government could have stimulated demand for military materiel

such that advances would still have been made in the direction of arms production. But this model still relied on a relatively democratic regime, with the unpredictability of popular demands still a factor (even if somewhat more restrained by Castello Branco's proposed constitution), as well as a relatively autonomous industrial and finance sectors.

Again, the post-Castello Branco administrations went in the other direction. Though even the most authoritarian of regimes strive for legitimacy, and therefore must be at least minimally concerned with popular demands, there was little question of bowing to political demands of parties. Furthermore, the government took a firm and active role in economic planning, guaranteeing that Brazil's industrial needs as defined by the armed forces would be met. Firms such as EMBRAER, and later Imbel, were created, which met defense needs, and others, such as Engesa, were strengthened. Domestic investors, traditionally reluctant to invest in newfangled industrial enterprises (though still adept at judicious investments in agriculture[12]) had to be prodded or induced to invest in government sponsored projects.[13] In those industries deemed vital to national security, the military government created market reserves, negotiated production and technology transfer agreements with foreign firms and their governments (specifically in aeronautics, computers and nuclear technology). Research institutes were created and expanded, often within the military establishment,

but their researchers were moved when needed from the military to the appropriate civilian industries.

PART III - THE CONFLUENCE OF IDEOLOGIES: THE SORBONNE GROUP AND THE TECNICOS

The arms industry was indeed the showpiece of the Brazilian economic miracle. While this was the only sector which showed outstanding results during the miracle, it was in defense production and in related spheres, such as computers, deemed crucial to national security where the government was most actively involved. It was also in these spheres that government involvement continued, even as other areas languished following the collapse of the miracle in the mid-1970s.

Much of the ideological justification for the lavish investment of resources and concern on these prize sectors turns out, on closer examination, to be after-the-fact rationalization. Some analysts of the Brazilian arms industry see the role of the government's ideology as being consistent throughout this period. In her landmark study, The Brazilian Arms Industry: A Case Study of Public-Private Collaboration, Patrice Franko Jones stated:

> ... Throughout the Brazilian industrialization experience a multidimensional concept of security emphasizing economic strength as a prerequisite to military might informed development policy. Simultaneously, there existed strong sentiment that wherever possible economic activity should be left to the private sector. Together, these ideological foundations favoring industrial promotion and private economic activity coalesced to

shape an industry behaving as often as possible according to the dictates of the market, not the military.[14]

If one is trying to capture the overall effect of government policy, looking back on it after its years of success, such a description may not be far off the mark. Nevertheless, such a description is ultimately a composite of the various approaches that vied with one another, often bitterly, at the time. Such a description fails to show the tensions between the various factions in the armed forces, or the improvised responses and modifications that came about as a result of external events. It could give the impression that an overarching rational strategy existed from the start, whereas many of these "rational policies" were either invented or discovered after the defense sector began to show successes.

Franko Jones later claimed:

The defense sector was organized on economic grounds. With a clear articulation of goals predicated upon the ideology of developmental nationalism, the state sought to establish a sector which both attended to the needs of the armed forces and also contributed to economic growth. It was reasoned that where viable, private ownership of defense firms should be promoted with state incentives and technological support. This indeed was the case with Engesa and Avibras. Where, however, the private market failed, the state assumed ownership. Nevertheless, even in the case of these public enterprises, the criteria of profit maximizing 'as if' private behavior was enforced.[15]

The defense industries were established with rational, economically viable frameworks. But this is not to say that the rationale for establishing them in the first place was economic. If the original motivation for establishing the

industry was taken on military grounds (as this work asserts), this alone does not preclude the possibility that those actually involved in the day-to-day planning of the industry were capable of operating the enterprises in an economically rational manner.

The priorities of the Castello Branco regime did not include the creation of an arms industry, though stimulation of industry and the acquisition of high-technology had their place. The Costa e Silva regime did have an interest in establishing an arms industry, however, which was not only an extension of the long-pursued dream of arms independence but also a reaction to military anxiety over securing its sources of modern equipment. Under Costa e Silva Brazil took advantage of the unprecedented aggressive marketing activities of Western European arms manufacturers. Still, the coincidence of a more military-oriented regime, lack of supplies from a traditional supplier, and the fortuitous opening up of new opportunities are not enough to explain the surprising success of Brazilian arms production.

According to Stefan Robock:

> One of the most interesting questions concerning the Brazilian experience is how so many public enterprises in Brazil have been able to become efficiently managed businesses when the conventional wisdom throughout so much of the world is that government enterprises are inefficient and riddled with politics. The probable explanation in the case of Brazil involves the form of organization used, the success of the companies in attracting highly qualified personnel, and the willingness of the political leaders to rely on professional managers and tecnicos to direct these companies because of the political consequences of failure in such large and complex ventures.[16]

The key to this discussion is not the fact that the companies in question attracted qualified personnel, or that the political leaders (read "generals") relied on tecnicos. The key lies in the questions concerning how this state of affairs came about, and why.

Many important groups in post-war Brazil, whether of the left, center or right, felt that Brazil had the potential to become a modern industrialized nation, if not a world power. The need to modernize the economy, industry, and acquire advanced technology was recognized by all these currents. The new technological class, which would take on the role of Adler's "subversive elite" under the military regimes, if only because of their professions (as economists, planners, engineers, scientists, etc.), were clearly part of this consensus.[17] That they were welcomed into the projects initiated by Castello Branco and Golbery, some already holding posts in government, is evidence that, at least on issues of development and technology, their weltanschauung had some affinity with the goals of the Sorbonne group. They continued to rise under the hard-line administrations, even when they were at odds with the extreme nationalist duraduros. This was because their efforts were bearing fruit, and because they still felt that, whatever their political differences with the regime, there existed an unprecedented opportunity to push Brazil forward on the path to modernization.

Two such tecnicos were José Pelucio and João dos Reis Velloso. Pelucio had held an executive post in the Banco

Nacional de Desenvolvimento Economico (BNDE - a state investment bank established in 1952) before the coup of April 1964. He continued on after 1964 and was responsible for many of the subsequent government programs for scientific and technological development. He helped to create the Scientific and Technical Development Fund (FUNTEC) within the BNDE in 1964, and the Coordination of Graduate Programs in Engineering (COPPE), with BNDE/FUNTEC funding, in 1965. COPPE grew into the largest engineers' training program in Latin America by the late 1970s. Pelucio also served as president of the Studies and Projects Financing Agency (FINEP) and as the vice-president of the National Research Center (CNPq) until 1979. FINEP and CNPq were agencies of the influential Secretariat of Planning (SEPLAN), the main ministerial-level directorate for planning in the government.[18]

Reis Velloso founded and presided over the Economic and Social Planning Institute (IPEA) which is also a SEPLAN agency. In 1968 he became the general secretary of the Ministry of Planning and in 1969 became Minister. By the time of President Geisel's administration, Reis Velloso was Minister-in-Chief of SEPLAN.[19]

The economic policies of the government were crafted by men like Delfim Netto who oversaw the economic miracle even as he angered hard-liners by continuing to encourage foreign investment on a grand scale. Development policies were influenced by men like Pelucio and Reis Velloso who helped to create the governmental network for promoting research,

development and training, and who guided like-minded <u>tecnicos</u> into the various agencies and enterprises they helped to create. From such examples one begins to see that the success of the Brazilian experience often came despite the hard-liners' own policy preferences. It came about in large part due to the existence of a capable and well-placed technocratic elite which was able to influence government planning and operate with relative autonomy.

The role of such a national technocratic elite in achieving the goals of successful arms production and of integrating the arms industries into the national industrial sector has proven to be crucial for other Third World arms producers. In contrasting the relative successes of Taiwan and South Korea in these endeavors, Janne Nolan points to the differences in the role of the technocratic elite in each state. Nolan calls this group the "developmental vanguard."[20] According to her research, the Taiwanese technocrats have allied themselves with pragmatic officers and politicians, thus allowing them more autonomy within the defense industry as well as more influence over general economic planning. This allowed Taiwan's arms industry to expand, achieving high levels of sophistication and quality, while at the same time maintaining strong links to the civilian industrial sector and contributing to Taiwan's controlled and consistent economic growth. As in the case of Brazil, the Taiwanese "developmental vanguard" had to ally with moderate officers against the "Old Guard" hard-line in order to maintain its

autonomy.[21] The technocratic elite in South Korea, however, had less success in breaking into the highly centralized government circles. Though South Korea was successful in creating an arms exporting industry, it has periodically suffered from problems of quality control, reckless planning, and over-extension due to projects adopted for political value rather than in accordance to domestic production capabilities.

> Compared to Taiwan, certainly, Korea did not benefit as fully as it might have from the development of the defense industrial sector. Preferring for the most part loyalty over expertise, the government structure has not made a smooth transition from its traditionalist past to modern administration. An overly close relationship between government and business, not mediated as in Taiwan by a certain cultural distance between the two groups or by the presence of a strong, independent and indispensable scientific-technical-academic elite, deprived the country of a source of necessary and salutary tension.[22]

India has an impressive pool of technocrats and scientists. Among Third World countries, it boasts one of the largest organized research complexes (referred to as the military-industrial-research complex, or MIRC, by Thomas Graham[23]). Though India has achieved some successes as an arms producer, its ability to produce high-technology items has lagged behind that of Brazil or Israel. Schedules on long-term development of weapons systems are frequently pushed back. In cases where expertise had begun to be acquired as a result of licensing agreements with industrialized suppliers, political considerations have dictated the switch to new suppliers, setting back the process of technology acquisition.

> These decisions are usually a result of political or strategic considerations and have little to do with the

day-to-day operations of the MIRC. The series of
decisions to emphasize development of the MIRC were made
largely on political grounds. They were not preceded by
detailed evaluation of India's capabilities or its
projected military threat.[24]

Since decisions on R&D and arms development are made in
a highly centralized political system, generally within the
close inner circle around the prime minister and in the top
echelons of the ruling party (usually the Congress Party),
technocrats have little input. Implementation of decisions
regarding these areas flow down through highly regimented
governmental channels.[25] The military, which feels that its
own input should be greater in such policy-making, is in
charge of defense industries. The military replicates the
rigid channels of implementation, restricting civilian input
or oversight.[26]

The role of the technological elite in Israel is
critical. Due to several factors such as an unusually large
pool of technocrats and scientists, drawn both from immigrants
from industrialized countries and Israelis trained in the
West[27]; a technologically sophisticated military; and astute
politicians, the technological level of the Israeli arms
industry is remarkably high. Israel has not only been able to
absorb Western weapons systems, but has frequently been able
to improve upon them (such as the Merkava tank based upon the
British Chieftain, and the Kfir fighter based upon the French
Mirage V).[28] Arms production, though under the political
control of the Defence Ministry, was distanced from direct
military control as early as 1952, thus affording greater

autonomy for industry decision-makers.[29] Though never totally free from political and ideological disputes, the Israeli technocratic elite was never in the position of its Brazilian or Taiwanese counterparts, who had to adopt a "subversive" strategy involving political alliances and compromises in order to insinuate their way into governmental planning agencies and defense enterprises.

The experience of Argentina is particularly instructive. Argentina was also ruled by a military government which espoused a version of the National Security Doctrine. In terms of industrial and technological potential, given the right circumstances, Argentina could have been a serious competitor for Brazil in arms production and exports. One critical difference in the ideology of the Argentinean military, according to Carlos Waisman, was an excessive emphasis on autarkic development, an extreme version of economic nationalism. This created an even stronger resistance to foreign investment and cooperation among Argentinean officers than that found in the Brazilian military. This, coupled with direct and rigid military control over the domestic arms industry, created a situation wherein attempts on the part of the technological elite to influence development planning were much more difficult.[30] Though the Brazilian "subversive elite" was also forced to struggle against similar attitudes of duraduro officers, the relative autonomy from the military enjoyed by defense enterprises, and the ability to align itself with the

decidedly anti-autarkic Sorbonne Group provided much more room for maneuver. Even Delfim Neto, appointed Finance Minister with the expectation that he would curtail the heavy foreign investment favored by his predecessor, enjoyed enough political leeway to thwart these autarkic hopes.

Regarding the success that Brazilian defense enterprises had in "attracting highly qualified personnel," as Robock put it, in the case of the arms industry, this was not simply a case of offering attractive packages to executives and technicians on the market. In emphasizing the extent to which enterprises and government agencies involved in planning and in R&D enjoyed a unique degree of autonomy from government interference, one should guard against assuming that this autonomy was total. It must be re-emphasized that the various military research institutes, such as the CTA and ITA, were not only engaged to draw up the initial prototypes of military products for firms like EMBRAER and Avibras, but that they transferred their own researchers to these firms in order to continue to guide those projects to fruition. In key areas, state enterprises did not "attract" many of their personnel. Rather, the personnel were transferred to them as a matter of government policy. It was because of the links that still existed between the government and these enterprises that the latter kept the cream of the crop of technicians.

There was a constant tension throughout this period in the relation between the military government, on the one hand, and the various tecnicos in government agencies and state

enterprises, on the other. The tendency of the former to continue to act upon the priorities as they defined them, as soldiers and nationalists, sometimes complimented and sometimes clashed with those of the latter.

At the time General Medici became president in October 1969 several important shifts on the ideological plane were taking place. In the first place, the feelings among officers identified with the Sorbonne Group had gradually become more nationalistic, despite the differences that continued to exist between this group and the hard-liners. Nationalist feelings among all groups continued to intensify throughout the 1970s. Officers first became disenchanted with the U.S., and then outraged by its "meddling" in internal Brazilian affairs as the regime's human rights record came under scrutiny in Washington. For the more moderate officers, the decrease in Cold War tensions, as well as the increased feelings of independence that the growing arms industry afforded, brought them, at least on this score, several steps closer to their rivals.[31]

In the early 1970s, there was also some change in thought among hard-line officers about the nature of the threat to internal security. By this time, the military had successfully defeated the last vestiges of self-styled revolutionary activity. Though ruthless police-state methods would continue to be applied throughout the 1970s, aggravating the split between moderates and duraduros, the elimination of

actual guerilla activity did lead to a palpable change in the linha dura approach.

> After the transitional phase represented by the Costa e Silva government, the Medici government shifted the emphasis of its discourse from this negative approach to a more positive one. Though still incipient and imprecise, nationalism began to make its voice heard in the political-economic arena. This tendency received support from the military, whose traditional nationalism had received little stimulus from the Castello Branco-Roberto Campos government.[32]

One result of this shift on the part of the duraduros was the launching of grandiose building projects by the Medici administration. These efforts, dubbed "pharoanic" by any number of commentators[33], had great symbolic importance for the more nationalist officers (and for the Brazilian citizenry), but were of dubious economic value. The Trans-Amazonian Highway, dams, more iron and steel processing plants were built to demonstrate Brazil's economic dynamism as well as the administration's commitment to national goals of unifying and strengthening Brazil. Moreover, as these programs were developed on the basis of extensive foreign borrowing at a time when the economic miracle was beginning to slow down, the effect was that of accumulating debt when Brazil was not in a position to support it. This process began even before the first oil crisis of 1974, an event which further trapped the country into an inescapable cycle of debt accumulation.[34]

Another change in the ranks of the linha dura began to take place as well. As the internal security threat diminished, some duraduro officers began to call on the

government to devote itself to the social problems of Brazil.[35] This shift in perspective did not signify that these officers had been converted to the ESG approach. The Sorbonne Group maintained that redistribution of wealth would necessarily have to follow successful development rather than precede it. These nationalist officers, still imbued with their traditional suspicions of entrepreneurs, were moving more in the direction originally advocated by General Albuquerque Lima, who had insisted that redistribution of wealth and creating social unity within the Brazilian nation should have been the government's first priority.[36]

President Medici did take some measures which reflected this new shift of opinion within his military constituency. He announced several new programs intended to reform land tenure laws and to reinvigorate the social security system. In the end these policies were little more than cosmetic.[37] One reform which did have some economic impact was the government's freeing up wage controls on the salaries of professionals and the middle classes. While still keeping workers' wages artificially low, the sudden increase in spending money in the hands of the middle class did have the effect of re-stimulating demand for consumer goods.[38]

There was one constant in this period of ideological fluidity and of debates pitting continuation of development policies against immediate redistributive policies. That constant was the progress of the arms industry. Even as the economic miracle was winding down, the military submitted

crucial contracts to EMBRAER and Engesa; negotiated with Piper; guaranteed sales, resources, tax incentives and write-offs for defense firms; and channeled R&D funds and researchers into the sector. In fact, 1974 was the first year of appreciable Brazilian arms exports, valued at $US 11 million, which leapt to over $150 million by 1976.[39] Even as Medici embarked on new developmental projects in pursuit of nationalist-populist goals, and at odds with more orthodox tecnicos, the defense sector maintained both its autonomy and the support of the government along the lines advised by the sector's managers.

But ideological rivalries and shifts of opinion continued to affect military politics, although all groups seemed to have become more palpably nationalist. The end of the economic boom and the deep effects of the first oil crisis tended to blur partisan lines even more. In the opinion of economist Luis Bresser Pereira this was evidence that splits between hard-liners and moderates were always exaggerated by analysts and the actual differences between these groups were superficial.

> What is curious, however, is that it is never possible to tell who's who among the Castellistas and the hard-liners, because though it may have suffered an occasional superficial split, the bureaucratic unity of the army has remained essentially untouched since 1974.[40]

However, the assessment of Wilfred Bacchus, author of several works on Brazilian military ideology, seems more consistent with the picture outlined above.

...[T]here was indeed a clear basis, at least through the first decade of military rulership, for the oft-cited cleavage between moderates and authoritarians in the military elite. When economic fortunes ran strongest (i.e. the early 1970s) and the Medici regime was acting more repressively than disinterested observers considered acceptable, divisions between factions also ran deeper. Then when adversity loomed largest, in the form of heavy outlays for petroleum and the staggering debt repayment burden, the elite tended to close ranks, caring less about ideology (which was by then almost entirely nationalist) than about means of survival and resumption of economic development....[41]

This "caring less about ideology" was not merely the reaction of national leaders to a crisis. It was the case that President Geisel's nomination was engineered in part by the ESG generals, and among other things brought General Golbery back into the government. It has also been shown that Geisel and Golbery were preoccupied with weakening the influence of the linha dura and reining in those officers and police responsible for the worst excesses of repression.[42] Bacchus could say that at this stage ideology was relatively less important within the military in part because many officers who had stood behind the linha dura were now "adrift", and also because the Sorbonne Group, for its part, had become more nationalist. Conflicts with the U.S. over human rights and Brazil's attempts to acquire nuclear technology came to a head while Geisel was at the helm, heightening nationalistic sentiments further.[43]

In the sphere of development policy, Geisel initially replaced Delfim Netto with the more orthodox economist Henrique Mario Simonsen, possibly in the hopes that the latter's fresh approach would help right Brazil's now listing

economic ship. However, the government was not willing to implement Simonsen's program, which forced his resignation. Within six months Delfim Netto was back at Finance, alongside that other veteran tecnico Reis Velloso, still in charge of planning. Consistency was maintained, if inadvertently, in financial and developmental policy.

It was during the term of President Geisel that additional economic and political advantages of a successful domestic arms industry were "discovered." As a productive sector which continued to expand, offer employment, and attract foreign technology and investment, it remained one of the few sectors still flourishing (along with agriculture) while others were foundering. As arms exports expanded Brazil not only now had the means to stake a claim in what was then a growing world market, but it was also able to use arms exports as a bridge to persuade arms clients to buy other Brazilian goods.[44] Moreover, as arms tended to be high price-tag items, arms sales became a much-needed source of foreign exchange, just when foreign reserves were being rapidly depleted after 1974.[45] Since Brazil was unable to appreciably curtail its consumption of oil after 1974, and especially after the second oil crisis of 1979, it found it could barter its weapons for oil. Arms-for-oil deals with countries like Angola, Nigeria, Libya, Iran and especially Iraq became increasingly common by the 1980s.[46]

The main political advantage of the arms industry discovered in this period is actually in line with what the

Brazilian military had believed since World War I. That is, a viable domestic arms industry would increase political independence from the industrialized powers (mainly the U.S.). Geisel's repudiation of the Military Assistance Program agreements with the U.S. may well not have been politically possible had Brazil not enjoyed such success with its domestic defense industry. This action, on the part of a general identified with the normally pro-U.S. ESG, not only gratified the nationalist passions of the officer corps, but seemed to prove that the arms industry had indeed provided Brazil with more freedom of maneuver. (That this independence was in fact of a much more limited scope would be discovered later, as will be shown in Chapter V.)

The brief appearance of Simonsen in the Finance Ministry notwithstanding, Geisel maintained a certain continuity in developmental planning. The military government continued to set priorities according to perceived military needs, while allowing its <u>tecnicos</u> to proceed as they saw fit. Though in the 1960s officials at BNDE had become concerned about the need for Brazil to acquire computer technology, and perhaps develop its own computer industry, it wasn't until the Navy purchased frigates from the United Kingdom in 1971 that the military government decided to back such efforts seriously. The ships in question were equipped with advanced computer systems from the British firm Ferranti. The naval chiefs feared that without the appropriate level of domestic computer technology the military would find itself once again dependent

on the industrialized nations for their security needs.[47]
Following the strategy which had proved itself successful in
Brazil's aeronautics industry, the new efforts to acquire
computer technology were designed to create both a military
computer capacity as well as a civilian one. (The naval
officer in charge of the project was José Luis Guaranys, after
whom the initial project was named. Guaranys' counterpart at
BNDE was José Pelucio, discussed above.[48]) Ironically, though
the initial impetus came from the military, it was the project
for computers for military use which collapsed and the project
for civilian computers which took off. Nevertheless the
decision to move in this direction was based on military
considerations rather than on purely economic ones.

It is here that one can clearly see how the corporate
needs of the military, and the way in which these determined
policy priorities under the hard-liners regimes, converged
with those of the tecnicos identified by Adler as the
"subversive elite." The goals were posited by the military
regime, and these goals invariably imply the need to acquire
advanced technology. The assumption of the subversive
tecnicos was that it was necessary for Brazil to acquire such
technology, whatever the source, for Brazil to move forward
towards sustained development.

The government's support for the computer project was
much like that given to EMBRAER. Though the military part of
the project failed, computer technology was now deemed vital
to national security. The Commission for the Coordination of

Electronic Data Processing Activities (CAPRE) was created in 1972 by presidential decree. It would soon augment its powers to such an extent that by 1975 it could limit imports of computers for use in federal agencies and later review and control all contracts involving computer imports.[49] When IBM announced in 1976 its intentions to produce a mini-computer in Brazil, CAPRE was able to reserve the domestic market for micro- and mini-computers for domestic producers. Eventually IBM, along with Burroughs, the number-two foreign distributor of computers in Brazil, were prevented from manufacturing even medium-computers. CAPRE was abolished in 1979 and replaced by a new Special Secretariat of Informatics (SEI) which, significantly, was attached to the National Security Council. SEI's actions in preventing U.S.-based computer giants from effectively competing in Brazil did allow for a dramatic advance in computer production, but it also brought Brazil into a bitter dispute with the U.S. government in the 1980s.[50]

When the issue concerned technological progress and national security, according to the National Security Doctrine, the two are understood as being inextricably linked. However, in practice, it sometimes happened that the military regime's pursuit of security would actually prevent such desirable processes, such as technological spin-off, from taking place. Whereas both the interests of the military and the Brazilian people, as defined by the "subversive elite," saw the acquisition of ever higher levels of technology as necessary for Brazil, it turned out that the touted beneficial

effects of technological spin-off were actually discouraged by the regime. Ideally, once one sector of Brazilian industry acquired new technology and incorporated it into its production, it would be only a matter of time before these new methods would spin-off into other sectors.

In fact, in order to insure the success of certain of its armaments ventures, the military government often took measures which insured that the opposite would happen, resulting in what one analyst called "spin-in."[51] The tendency had been to bring non-defense firms with know-how needed by the defense industries into the horizontal structure, with the newly recruited firm converting its production to defense needs rather than the other way around.[52] According to Roberto de Godoy, a Brazilian journalist specializing in defense industry issues, what passes for spin-off is often little more than cases of military vehicles finding their way to agricultural or prospecting firms, which then relieve them of their specifically military components before use in the field.[53] In some cases technology exchange agreements were made with foreign producers, as in the case with the deal between EMBRAER and the Italian firm Aeromacchi for the production of the AMX fighter aircraft, which stipulated that technology acquired (in this case, the turbine design) would remain within the EMBRAER system.

> The decision to qualify a national enterprise through its association to a foreign partner, taken by the Aeronautics Ministry, was apparently aimed at the

prevention of EMBRAER's verticalization, which would represent dispersal of its technological potential to areas outside its intended specialty. [Sic] [54]

The experience of the munitions producing firm Imbel provides another example of tension between military priorities and those of the civilian tecnicos. Imbel was formally created by presidential decree by Geisel in July 1975. It was meant to serve as an umbrella organization to unite some seven or eight smaller munitions manufacturing and repair facilities. These smaller facilities, small fiefdoms of officers within the armed forces framework, were inefficient and duplicated efforts. By putting them under one central management, it was expected that production would be rationalized and thereby improved. Though Geisel's action did allow for some improvements, Imbel nevertheless remained the bailiwick of officers. In 1975 General Augusto de Oliveira Pereira was named president of Imbel. He was replaced in 1978 by General Arnaldo Calderi. Finally, in 1982, a civilian, José Luiz Whittaker Ribeiro, was appointed head of Imbel. He had previously served as president of Engesa. Until this time, too much of Imbel's production had been kept in-house, with few links being forged with outside firms. Under Whittaker Ribeiro, Imbel was able to distance itself somewhat from the military establishment. This had two advantages. It removed Imbel from the sort of insular military politics which had proved the bane of other Third World arms producers. The firm was freer to adopt more economically based methods and so efficiency increased. Imbel soon entered into lucrative joint

ventures with the Engesa group and shortly thereafter began to export its products. The second advantage was political. Though still a public enterprise, Imbel was no longer a branch of the military. This made it easier for the firm to sell its wares to pariah states or to states involved in military conflicts without those sales being traced back directly to government agencies. Imbel's newly found autonomy from the military administration reduced the likelihood of confrontation with the U.S., as the government had now gained "deniability." Nevertheless, the Army Ministry still reserved veto power over key Imbel decisions.[55] One can see from the experience of Imbel that the military's ambivalence towards the tecnicos persisted even after the latter had proven the merits of their approach. The idea that the military knows best what is good for the military (and by extension, arms production) dies hard. The corporate ideology of the military was still a factor at this stage. However, its potential negative effects on the continued progress of the arms industry were somewhat mitigated by the growing pressure for the military to disengage from government that took hold by the time General Figuereido became president.

By the end of Geisel's administration the last significant leaders of the linha dura had been outflanked by the Sorbonne Group. By the time Figuereido, a protege of Golbery's, became president, the twin concerns of dealing with a full-fledged economic crisis and extricating the military from the government consumed much of the new administration's

attention. The defense industries still managed to maintain their autonomy, and the computer industry was also advancing. These two projects would also become central political concerns in negotiations with civilian leaders for a return to democratic rule. Within the military factionalization had taken place to an alarming degree. There were more and more officers calling for a return to civilian government, not necessarily solely out of a devotion to democratic values, but in large part because it was felt that the military institution was being harmed by its association with repressive, undemocratic government, and an inability (or perhaps more accurately, a loss of the ability) to deal with the economic chaos plaguing Brazil. Paradoxically, a major motivation for the military to return to the barracks was concern for the health and prestige of the armed forces, reflecting the corporate interests of the military which took power in 1964 in large part to protect the health and prestige of the military.

By the time it became clear to the leaders of the military that the time had come for them to return to the barracks, one could say that on the fundamental issue of the survival of the military-as-institution, the armed forces had come full circle.

Simply put, a chief concern of officers which precipitated the coup of 1964 was the threat that the populist-leftist government was perceived to hold for the armed forces. A chief concern for the majority of officers

during Figuereido's administration was that under circumstances then prevailing, continued military rule was tearing the armed forces apart and damaging its prestige. However, in the course of those twenty-one years, the armed forces had acquired new concerns, which they were determined not to lose.

> The military had two major institutional interests they wanted to protect if they relinquished direct rule. In speech after speech, military leaders warned against any retaliation (revanchismo) against the military. Obviously they felt a pro-regime civilian would guard against revanchismo, and would leave the vast majority of the state security system intact. The other major interest they had ... was continued national development of the arms industry. Related to this, the military wanted to maintain a strong policy and personnel presence in all state enterprises associated with national security, especially telecommunications, arms and informatics.[56]

This pre-eminent interest in preserving the arms industry on the part of the outgoing military does not decide the question of the role of corporate ideology played in its establishment, nurturing and development. But it does emphasize the extent to which, for the military, security-related industries were the main legacy of their two decades in power. Even as it was no longer in the interests of the armed forces to govern the country, it was not willing to relinquish its involvement in this sector. Even in its final moments, the tension between the regime's official ideology and its corporate ideology was palpable. From the point of view of the National Security Doctrine, now that the new levels of technology had been successfully acquired, this sector should have been able to blossom in civilian hands.

But the longstanding suspicion of officers for civilians made it difficult for the former to trust the civilians (who after all had made the arms industry the phenomenal success story it was) with its continued, unsupervised care.

ENDNOTES - CHAPTER IV: IDEOLOGY AND THE BRAZILIAN ARMS
INDUSTRY

1. Georges-Andre Fiechter, Brazil Since 1964:
Modernization Under a Military Regime. Trans. Alan Braley.
(New York: John Wiley & Sons, 1975) p. 156.

2. Alves, Marcio Moreira, "The Political Economy of the
Brazilian Technocracy" Berkeley Journal of Sociology. Vol. XIX
(1974-1975), pp. 110-111.

3. Clovis Brigagão, "The Brazilian Arms Industry"
Journal of International Affairs. Vol. 40/Nr. 1 (Summer 1986),
p. 106.

4. Sader, Emir and Ken Silverstein, Without Fear of
Being Happy: Lula, the Workers Party and Brazil. London:
Verso, 1991. pp. 37-38.

5. Emanuel Adler, The Power of Ideology: The Quest for
Technological Autonomy in Argentina and Brazil. (Berkeley:
University of California Press, 1987), pp. 192-193; Stockholm
International Peace Research Institute, World Armaments and
Disarmament: SIPRI Yearbook 1989 (London: Taylor and Francis,
1982), p. 406.

6. SIPRI Yearbook 1982, pp. 153.

7. SIPRI Yearbook 1988, p. 151.

8. Brigagão, "The Brazilian Arms Industry," p. 107.

9. Maria Helena Moreira Alves, State and Opposition in
Military Brazil (Austin, TX: University of Texas Press, 1985),
p. 128, p. 131.

10. SIPRI Yearbook 1982, p. 405.

282

11. Clovis Brigagão, O Mercado da Segurança (Rio de Janeiro: Editora Nova Fronteira, 1984), pp. 30-34.

12. Christian Comeliau and Ignacy Sachs, Histoire, Culture, Styles de Developpement: Bresil et Inde (Paris: Editions L'Harmattan, 1988) pp. 62-63.

13. See discussion in Chapter III - Part II, pp. 178-179, above.

14. Patrice Franko Jones, "The Brazilian Defense Industry: A Case Study of Public-Private Collaboration." (Diss. University of Notre Dame, 1986) p. 43.

15. Franko Jones, "Brazilian Arms," p. 101.

16. Stefan H. Robock, Brazil: A Study in Development Progress (Lexington, MA: Lexington Books, 1975) p. 54.

17. Antonio Carlos Peixoto, "Armee et Politique au Bresil," in Alain Rouquie, ed., Les Partis Militaires au Bresil (Paris: Presses de la Fondation Nationale des Sciences Politiques, 1980), p. 38.

18. Adler, Power of Ideology, pp. 208-212.

19. Adler, Power of Ideology, p. 211.

20. Janne E. Nolan, Military Industry in Taiwan and South Korea. (Houndmills, UK: Macmillan Press, 1986) p. 94.

21. Nolan, Military Industry, pp. 93-99. See also Jurgen Domes, "Political Differentiation in Taiwan: Group Formation Within the Ruling Party and the Opposition Circles, 1979-1980," Asian Survey Vol. XXI, Nr. 10 (October 1981), pp. 1022-1024.

22. Nolan, Military Industry, p. 119.

23. Thomas W. Graham, "India", in James Everett Katz, ed., Arms Production in Developing Countries: An Analysis of Decision Making (Lexington, Mass.: Lexington Books, 1984) p. 157.

24. Graham, "India", p. 180.

25. Raju G. C. Thomas, "India," in Kolodziej and Harkavy, eds., Security Policies of Developing Countries. (Lexington, Mass.; Lexington Books, 1982), pp. 133-134.

26. Graham, "India," pp. 180-183.

27. Stewart Reiser, The Israeli Arms Industry: Foreign Policy, Arms Tranfers, and Military Doctrine in a Small State (New York: Holmes & Meier, 1986), p. 79; G. M. Steinberg, "Israel: High Technology Roulette," in Michael Brzoska and Thomas Ohlson, eds., Arms Production in the Third World (London: Taylor and Francis, 1986), pp. 172-173.

28. Reiser, Israeli Arms Industry, pp. 98-105.

29. Reiser, Israeli Arms Industry, pp. 22-24.

30. Carlos H. Waisman, "Argentina: Economic and Political Implications," in Katz, ed., Implications of Third World Military, pp. 93-97, 99.

31. Wilfred A. Bacchus, "Long-Term Military Rulership in Brazil: Ideologic Consensus Dissensus, 1963-1983," Journal of Political and Military Sociology Vol. 13, No. 1 (Spring 1985) pp. 112-113; see also Bacchus, Mission in Mufti: Brazil's Military Regimes, 1964-1985 (New York: Greenwood Press, 1990) p. 39.

32. Luis Bresser Pereira, Development and Crisis in Brazil: 1930-1983. trans. Marcia Van Dyke. (Boulder, CO: Westview Press, 1984) p. 142. On this point, see also Bacchus, "Long-Term Military Rulership," pp. 107-110.

33. Bacchus, Mission in Mufti, p. 78; A. Gauthier and J. Domingo, Le Bresil: Puissance et Faiblesse d'un Geant du Tiers-Monde (Paris: Breal Editions, 1988), p. 88.

34. Bresser Pereira, Development and Crisis, p. 176; Alves, "Political Economy," p. 115.

35. Bacchus, Mission in Mufti, pp. 74-76.

36. Daniel Zirker, "Civilianization and Authoritarian Nationalism in Brazil: Ideological Opposition Within a Military Dictatorship," Journal of Political and Military Sociology. Vol. 14, No. 2 (Fall 1986) pp. 266-7.

37. Bruce R. Drury, "Intransigence and Rebellion: The Continuing Struggle for Land Reform in Brazil" [Mimeo] Southwestern Political Science Association Conference, Ft. Worth, TX, March 28-31, 1990, pp. 16-17.

38. Thomas E. Skidmore, The Politics of Military Rule, 1964-1985 (New York: Oxford University Press, 1988) pp. 104-5.

39. SIPRI, Yearbook 1989, pp. 228-9. (Prices in dollars at 1985 constant prices.)

40. Bresser Pereira, Development and Crisis, p. 191.

41. Bacchus, Mission in Mufti, p. 82.

42. See discussion Chapter III - Part III, pp. 204-205, above.

43. See discussion Chapter III - Part III, pp. 209-211, above.

44. Renato Dagnino and Domicio Proenca Junior, "Arms Production and Technological Spinoffs," [Mimeo] (Latin American Studies Association Conference, New Orleans, 1988), pp. 40-41.

45. Skidmore, Politics, pp. 178-9.

46. Franko Jones, "Brazilian Defense Industry," pp. 190-192.

47. See discussion Chapter III - Part II, pp. 187-189, above.

48. Adler, Power of Ideology, p. 245-6.

49. Adler, Power of Ideology, p. 250; Peter B. Evans, "State, Capital, and the Transformation of Dependence: The Brazilian Computer Case, World Development Vol. 14, Nr. 7, (July 1986) pp. 792-5.

50. Evans, "State, Capital," pp. 795-7.

51. Domicio Proenca Junior, personal interview, 6 June 1989, Brasilia, Brazil.

52. Brigagão, "Brazilian Arms Industry," p. 109.

53. Roberto de Godoy, Personal interview. 26 May 1989. Campinas, Brazil.

54. Dagnino and Proenca Junior, "Arms Production," p. 31.

55. Franko Jones, "Brazilian Defense Industry," pp. 88-93; Brigagao, "Brazilian Arms Industry," p. 108.

56. Alfred Stepan, Rethinking Military Politics: Brazil and the Southern Cone (Princeton: Princeton University Press, 1988) p. 59.

CHAPTER V: CONCLUSIONS - IDEOLOGY AND THE ARMS INDUSTRY

From being a negligible arms producer before the 1964 coup, by the mid-1980s Brazil was the leading exporter of arms among Third World countries. Moreover, once the industry began to take off, there were many who argued that the arms industry would serve not just as a means of supplying the armed forces' long sought after goal of arms independence. It would also be the means for attracting and generating the advanced technology, investment capital and foreign exchange that would keep Brazil's "economic miracle" going, and would thrust Brazil into the status of an industrialized nation.

It is for these reasons, among others, that it is of great interest to discover the reasons for the success of the Brazilian arms industry. Brazil was hardly alone among Third World countries in trying to develop an arms industry, but it achieved successes matched only by Israel. If it is the case that Brazil succeeded where most others failed, or at best achieved only modest success, to what can this be attributed? If indeed the approach offered by the National Security Doctrine is responsible, than it is quite possible that other Third World countries would do well to adopt and adapt the doctrine. If the National Security Doctrine turns out to have had only a limited or superficial influence on Brazil's

development, then it would be clear that the doctrine cannot serve as a prescription for others to take.

Two hypotheses concerning the role of military ideology in the development and success of Brazil's arms industry have been derived from the literature. In the examination of the policies and politics of the military administrations which governed Brazil from 1961 to 1985 evidence for evaluating these hypotheses has been emphasized. Other factors relevant to the role of ideology in the success of the arms industry have also been described. It remains to evaluate these original hypotheses in light of this examination, and to formulate a more rigorous explanation for the role of ideology in achieving success in this area.

It is clear that this work assumes that the ideological inclination of the principal actors in the military government is of great importance to the understanding of the establishment and success of Brazil's defense industry. It is possible, of course, to offer hypotheses to explain the Brazilian experience in such a way as to render the present discussion moot, or at least to make it seem only marginally relevant. On the one hand, one could offer hypotheses that seek to attribute significant explanatory value to causes which are chronologically or logically prior to the point at which the influence of ideology comes into play. If valid, such hypotheses could show the role of ideology to be superfluous. On the other hand, the question of the extent to which the Brazilian military was acting as an autonomous actor

must also be examined. If, as some critics of the military regime have argued, the pivotal decisions of this period were in fact primarily influenced, if not dictated, by other actors (e.g., the United States; multinational corporations; associated-dependent Brazilian capitalists) then the ideological debates within the military are reduced to little more than epiphenomenal events. If the role of the military was only that of a henchman, to remove troublesome populists and to hunt down revolutionaries so that international and domestic capitalists could operate at will, then it is of little interests what officers of whatever persuasion might have wanted. Things would then have proceeded along more or less the same lines had the military accepted its role as henchman and not even pretended to meddle in the economic affairs of their bosses. If this were indeed the case, again the whole discussion of military ideology and development would be moot, except insofar as it would show how best to manipulate the military to serve international capital, or other exogenous powers.

PART I - CONTRASTING HYPOTHESES

This work is concerned with contrasting two general hypotheses concerning the role of ideology in the development of the Brazilian arms exporting industry. The first hypothesis gives much explanatory power to the military's National Security Doctrine. The second gives the greater

explanatory power to the military's corporate ideology: the sum total of its professional needs, self-image and sense of mission. These may be restated as follows.

On the one hand, many analysts give much weight to the National Security Doctrine which had been meticulously developed over more than a decade before the military took power. This doctrine included a blueprint for development which tied together Brazil's economic, social, developmental and security needs; placed a great deal of emphasis on economic and technical planning; and specified the sorts of powers and measures which the State needed to undertake in order to put Brazil on the path to development. This ideology, furthermore, was not a mysterious and secret formula known only to grey figures comprising a restricted cabal. It was nurtured in the Escola Superior de Guerra, deliberately and progressively incorporated into the program of other officer-training courses. It was taught in courses which included civilians as well as military personnel and disseminated in publications and conferences, by military and civilian associations, including the universities. By the time the military seized power in 1964, many of those who were called upon to govern and to institute the new government's policies were imbued with the doctrine, while others were influenced by it to one degree or another. Indeed, the man considered by many to be the foremost intellectual force behind the formulation of the doctrine, General Golbery de Couto e Silva, held key posts in three of the five military

administrations.[1] Initial policies aimed at stabilizing the economy, but within a short time the military government adopted an aggressive industrialization program -- which was an integral part of the strategy outlined in the National Security Doctrine. Arms production was a centerpiece of this program, but this emphasis on arms production dovetailed with the needs of Brazil to acquire advanced technology, foreign investment and exchange, and promised industrial and technological spin-offs which would stimulate other sectors of the Brazilian economy.

On the other hand, one can look at the emergence of Brazil's arms industry from the perspective of long-standing military interests and policy. Once the military took control of the government and decided to remain in powers, it was finally in a position to realize its long-held but elusive goal of arms independence. From this point of view, derived from the arguments of Frank McCann[2], whether or not it was equipped with an articulated ideology, one might rather have cause for surprise if great effort had not been expended to get the arms industry off the ground. It therefore makes sense that an arms industry would be the centerpiece of any economic program adopted by the military government. The other non-military benefits accruing from the successful implantation of an arms industry, while important, are happy coincidences, rather than part and parcel of the effort.

While it is not logically impossible, it would nevertheless seem highly unlikely that either one of these

hypotheses could offer a wholly satisfactory account of the success of the Brazilian arms industry. There is no _a priori_ reason that these two explanations cannot be found to complement each other. Indeed, though these two hypotheses represent, to one degree or another, the tenor of discussion adopted by most of the writers concerned with this issue in analyzing Brazilian government policy in this period, it could be the case that both of these hypotheses miss the mark, and other alternatives may emerge that are more satisfying. Two writers cited earlier in this work come close to offering different hypotheses. Edmundo Campos Coelho claims at one point in _Em Busca da Identidade_ that the primary role of the National Security Doctrine was an internal one, in that it provided a means for unifying the armed forces. Its influence outside the military, _inter alia_ upon government policy, was secondary and incidental. Emmanuel Adler, in _The Power of Ideology_, is concerned with the corporate ideology of the civilian technical-professional class in the development of Brazil's and Argentina's industrialization programs in this period, and appears to claim for this group a large measure of responsibility in Brazil's successes, at times in opposition to the wishes of the military establishment.

It will be argued below that Adler's, and to a lesser extent Campos Coelho's, theories can serve as valuable secondary hypotheses that give more depth to the analysis. Both will be seen to complement the original hypotheses, rather than contradict them.

Of course, one cannot reduce Brazilian military politics
in the 1964-1985 period to such an extent that such simplified
hypotheses can explain all government behavior and policies.
Few, if any, political situations can be so treated. Clearly
the Brazilian military government did not act in a vacuum,
even at the point of its most extensive control of society.
Not only was the regime buffeted by international political
and economic pressures (e.g. President Carter's human rights-
based foreign policy; the oil crises of 1974 and 1979), as
well as domestic opposition (e.g. from the Church and
professional organizations), but it was not itself unified.

Special attention has been given to the Sorbonne Group
and the linha dura, but they did not exhaust all the relevant
groups. Even after those officers associated with the pre-
regime populist-left factions in the military were removed
from the ranks or politically neutralized, the remaining
officers did not fall neatly into these two factions. Even
the leadership of the linha dura faction found itself
skirmishing on its own right-wing with populist-nationalists
like General Albuquerque Lima. Perhaps most important, there
was always a large pool of officers which the recognized
leadership of the two chief factions tried to convince, woo,
or control. One cannot decide a priori that these officers
were always inclined to act on the basis of their pure
corporate interests, though they were certainly concerned with
them. As has been shown, the formal teachings of the Escola
Superior de Guerra and its National Security Doctrine filtered

down from the top, as the principal officer training schools incorporated the doctrine in their programs. When the Sorbonne Group was seen to be pursuing goals deemed appropriate for Brazil and for the military, they could count on, or recapture, the support of these officers. When the political climate became tense and the linha dura seemed to show the appropriate resolve for facing threats, this pool of officers would swing to the hard-liners. For the sake of adumbrating the differences in approach that characterized the military regime under presidents clearly allied to either the linha dura or to the Sorbonne Group, one has to be careful of interpreting this as too clean an opposition - between one group solely (and perhaps selflessly) proceeding on a principled ideological basis, and the opposing group which is solely motivated by crass corporate interest. Each group could claim to be working for "higher goals" (e.g. nationalism), the difference being that the Sorbonne Group's nationalism was more programmatic, more defined, but not for that reason (a hard-liner could rightly claim) more principled. Each group could be seen, or could claim, to be working for the military's interests. The first military president of this period, who, among the five military presidents might be said to be the Sorbonne Group representative par excellence, came to power as a result of near unanimity of the officer corps that the military institution itself was under threat.[3]

It will be maintained below that each of the two hypotheses set out at the beginning of this chapter is valuable for explaining the success of the Brazilian arms industry during this period. In fact, it will be demonstrated that neither hypothesis suffices on its own, but each explains certain aspects of the period satisfactorily. In the end, it will be demonstrated that, rather than representing two distinct and contradictory explanations for the policies of the military regime in the period under discussion, the two are complementary. Stated briefly, it will be asserted that decisions to concentrate on the building of the domestic arms industry, as well as the concentration of effort and resources in that sector, are better ascribed to the specific corporate interests of the military. However, the success of the project will be seen to be attributable to the unique approach adopted by the Brazilian military. This approach is the one inherent in the National Security Doctrine as advocated by the Sorbonne Group.

It is necessary to point out that many Third World countries have sought to develop national arms industries. However, very few outside of the Western industrialized countries and members of the former Warsaw Pact have achieved the remarkable successes of the Brazilian arms industry. From the time of the meteoric rise of the Brazilian arms exports in the 1970s to the end of the 1980s only Israel, among Third World countries, rivaled Brazil in its capture of the international arms market not already cornered by the two

superpowers and their industrialized allies. Even those of Brazil's neighbors which were ruled in this period by military governments espousing their own versions of the National Security Doctrine (namely Chile, Uruguay and especially Argentina) were not able to imitate the success enjoyed by the Brazilians. While not all Third World countries which attempted to achieve arms independence at this time were ruled by authoritarian regimes (e.g. India and Israel) many were (e.g. Iraq, Indonesia, South Korea, Taiwan, Argentina). Even when one points out that the security needs of countries such as India and Israel were such that the military exercised a great deal of influence, it is not enough to show that security needs or military control ipso facto guarantee success in the successful development of a domestic arms industry. Therefore, even if one can show that, in the case of Brazil, the decision to pursue arms independence and to develop an arms industry is attributable to the corporate interests of the group holding the reins of power (i.e. the military itself), this alone does not explain why Brazil succeeded while most other military governments failed.

Of those Third World countries which have been developing their arms industries, some have undisputable security needs. For example, Israel's very existence has depended in no small part on its having been able to develop a remarkably sophisticated arms industry. Though much of Israel's arms production is exported, in this case, domestic military needs dictated that this small nation strive to

attain arms independence. Though Israel needed the types of arms it produced, it is a relatively small country with limited capacity to absorb all it can produce. Exportation of arms allowed Israel to produce more arms than it needs, achieve economies of scale and reduce costs, and thereby reduce the economic burden that such a cost-intensive industry carries with it. Other Third World arms exporters, such as South Korea, also have reason to take seriously the hostile intentions of their neighbors.

In the case of Brazil, military-cum-security needs surely do not compare with those of Israel or South Korea. The last war fought by Brazilian troops on their own borders was the war with Paraguay in the mid-nineteenth century. Brazil did send its <u>Forca Expeditionaria Brasileira</u> (FEB) to fight in Italy in World War II, and there were some fears that had Axis forces continued to press into Allied-controlled areas of Africa, Northeastern Brazil might become the target for creating an Axis foothold in the Western Hemisphere. Though it has been shown that this interpretation had some currency for Brazilian strategists, it was a remote threat at worst, and in any case never materialized.[4]

The only two Latin American countries which were perceived to pose any real threat to Brazil were Argentina and Cuba. In the case of the former, there is a common border and a traditional rivalry. Argentina has the economic, social and technological potential to match Brazil's industrial production and arms capability, though Argentina has not

realized its potential to the point of posing a threat to Brazil, even in the period when it was ruled by a military regime espousing its own variant of the National Security Doctrine. Argentina's potential as a foe is never far from the minds of Brazilian strategic planners. In the debates surrounding the formation of the FEB in World War II, reluctance to remove forces from Rio Grande do Sul formed part of the arguments against sending a sizable force to Europe.[5] Relations between Argentina and Brazil rarely lack some degree of mutual suspicion. For example, in the 1970s and 1980s Brazil resisted signing the Nuclear Nonproliferation Treaty because of fears that Argentina was pursuing nuclear military capability.[6] From a military point of view, however, assuming the threat from Argentina to be real, the arms industry itself seems not to have been geared to the general effort to protect Brazil from the sinister Argentineans. While Brazil still maintains its large Third Army in Rio Grande do Sul, the armored cars, personnel carriers and tanks of which the Brazilian arms industry is so proud are often too heavy to be deployed over the roads and bridges deemed most likely to be the points of approach of the invading Argentine army.[7] Furthermore, though the military governments had guaranteed to buy sufficient numbers of the products produced by the Brazilian arms manufacturers to allow for economically feasible production, the Brazilian army nevertheless remained under-equipped. In some areas, to be sure, Brazil was able to substitute domestically manufactured weaponry for imports,

which had undeniable advantages. Yet even today, as the world arms market is rapidly contracting, many units of the Brazilian army are forced to operate without essential military equipment.[8]

The threat from Cuba was not one of a military invasion. Cuba's threat was first of all one of subversion. Cuba's revolutionary adventurism had involved it in disturbing activities in Bolivia and Venezuela, on Brazil's borders. Brazil's military government was engaged in fighting would-be revolutionaries at home, and though the revolutionary threat was essentially quashed by the early 1970s, the fiercely anti-Communist elements of the National Security Doctrine made anti-subversionary activity a central policy of the regime. Whether as an actual link with Brazilian subversive elements, or as an inspirational "example" for future subversives, Castro's Cuba was despised by the reigning military establishment. But though Cuba posed an ideological threat, it was not a military threat. The security danger that it seemed to pose was elaborately answered in the National Security Doctrine, but it is far from an adequate explanation or justification for the creation, let alone success, of Brazil's arms exporting industry. Insofar as one seeks to explain a successful arms industry in terms of a palpable external military threat, such an explanation would not account for Brazil's.

Standing alone, the adherence of a ruling elite to an articulated ideology is not adequate as an explanation for the

successful implantation of an arms industry. Iraq, under the rule of the Ba'ath Party since 1968 has also undertaken to produce its own arms. Some of the successes achieved were destroyed by a combination of the Iraqi regime's own provocations and the response of various external actors to those provocations, whether it was Israel's destruction of the Osirak nuclear reactors in 1981, or the victorious anti-Iraqi coalition in the Gulf War of 1991 and the subsequent UN-sponsored dismantling of the regime's more potent weapons. While Iraq may not serve as a model for comparison due to the dangerous adventurism of its Ba'ath regime, as well as its having been in an almost constant state of war from 1980 to 1991, the fact that the regime advocated a far-reaching ideology which included programs for social and economic restructuring and industrialization demands some mention.

More germane to the role of the National Security Doctrine in the development of Brazil's industrialization policies, and its success in fostering the arms industry is the curious fact that during the same period, three other South American countries were ruled by regimes which espoused versions of the doctrine. The regimes in Argentina, Chile and Uruguay might therefore have been expected to at least have achieved similar successes, if not greater ones, at this time. In some ways, one might have said that these others were in a better position than Brazil, since Brazil's industrial base was less developed before 1964, and its social cleavages were much greater. However, the ferocity with which these three

regimes prosecuted their "dirty wars" far exceeded that of the Brazilian regime. At least in the case of Argentina, there is also the fact that the military did not enjoy the regime continuity that the Brazilian military did, even accounting for the differences in orientation of the five Brazilian general-presidents. But it was the Argentineans who saw themselves as competing with the Brazilians, and who attempted to make breakthroughs in arms production, computers and nuclear technology. If three neighbors, ruled at the same time by generals espousing a similar ideology, and which arguably had a leg up on Brazil in terms of industrialization from the outset, were unable to replicate the Brazilians' success, then an explanation relying mainly on the efficacy and persuasiveness of the articulated ideology itself cannot be sufficient. If it were, then all four Southern Cone countries should have had similar "economic miracles," and Argentina's extensive efforts to develop arms should have met with greater success.

In sum, there appears to be no workable simple hypothesis concerning the establishment of a successful arms industry in Third World countries. It is not the existence of an authoritarian regime, let alone a military regime, that is determinant. Israel, as Brazil's chief rival for largest exporter, is a democratic state. Though success on the scale of Brazil and Israel has eluded its grasp, India has also invested a great deal of resources in attempts to develop a domestic arms industry. South Korea and Taiwan have

authoritarian regimes, but are not directly ruled by the military as Brazil was. It is not the existence of an immediate external military threat, for while this certainly does exist for Israel and South Korea, and to a lesser extent for Taiwan and India, it cannot be argued that such a threat exists for Brazil. It is not the existence of a well-articulated ideology, held, disseminated and enforced by the regime, as this element is lacking in Israel and India. Under regimes such as those of Argentina, Chile and Uruguay in roughly the same period, an arms industry was either not vigorously pursued, or else, in the case of Argentina, extensive efforts did not pay off.

The military seized power in Brazil in April 1964. The first administration featured officers and civilians who had been involved with the development and dissemination of the National Security Doctrine. Among these men were the new president, Castello Branco, and General Golbery do Couto e Silva, possibly the doctrine's most influential advocate, as well as Octavio de Bulhoes and Roberto Campos, civilian ministers charged with the economic and planning policies of the new government.[9] For those analysts who seek to explain the imposition of a military regime through longstanding conspiracy, the facts may indeed lend themselves to such interpretations. Conclusions concerning the involvement of the United States in the coup, or of the coincidence of interest among foreign-based multinationals, the class of associated dependent capitalists in Brazil, and the officers

as a catalyst for the coup and the institution of a radical new program that seemed to serve these interests[10] may be validly drawn from such a picture. This work does not seek to deal with these questions. In what concerns the specific interests of the military, such analyses leave many questions unanswered. However well the interests of the multinationals, of the U.S., of the Brazilian upper classes may have been served in the long-run, it was the military which took power and held the reins of power for two decades. Between the two discernable groups in the military which controlled Brazil from 1964 to 1985 there were serious differences of opinion, not only on matter of internal security, repression and the merits of democracy, but also on the role of the state and of foreign capital in investment, and economic and social policy. The nationalization of industries deemed vital to national security, ownership by the government of a majority of voting shares in industries, the creation of market reserves, and the way in which the Brazilian state occasionally played competing foreign firms off against each other are policies which reenforce the image of the Brazilian military as a player in its own right, rather than as a puppet or junior partner totally manipulated by foreign interests. That the military government sometimes had to resort to measures to force the domestic capitalists out of their lethargy to invest in new projects[11], that is, to force them to act in their own interests (as well as in the Nation's and the military's interests), might be taken as evidence that domestic

capitalists were not yet well-enough organized to pull the military's strings. But this would seem to point to the contrary: that it was the military which, for various reasons, was in a position to pull the strings of the Brazilian bourgeoisie.

The possibility of a confluence of interests among foreign and domestic actors at the time of the April coup is here neither denied or confirmed. What is asserted is that the military acted autonomously. It acted then in a way consistent with its interpretation of military and national interests. The military leadership came to power armed, as it were, with a blueprint for economic, social and political development, the National Security Doctrine. Within the leadership, however, the centrality of the doctrine was debatable. Three of the five military administrations have been identified as strongly supportive of the principles of the National Security Doctrine (the first, that of Castello Branco, and the last two, of Geisel and Figuereido); two were identified as less tied to the doctrine (the second and third, those of Costa e Silva and Medici). The latter have been further described as guided by an approach based on a narrower interpretation of nationalist and military interests, in other words, by the corporate interests of the military.

PART II - IDEOLOGY, ARMS AND DEVELOPMENT

In the most monolithic of regimes there are conflicting currents of thought, ideologies (or interpretations of the "official" ideology), of personalities, as well as unforeseen external events which demand responses. This was certainly the case in the Brazilian military regime of 1964-1985. (Indeed, one suspects that the label "monolithic" is most apt to be applied by those totally frozen out of the power structure, and those most implacably opposed to the regime's policies and values. It is not a useful notion for political analysis.)

Much of the analysis of the ideology and politics of the regime accept that two main ideological currents existed within it. One is variously called the Sorbonne Group, the moderates, the soft-line, Castellista, ESG, or to mention Bacchus' preferred term, "democratic internationalists." The other: the linha dura, duraduros, hard-liners, Costistas, or, for Bacchus, "authoritarian nationalists."[12] There are some subtle differences in definition and inclusion, depending on a given writer's perspective. Though it has here been asserted that the former group is that faction which was more loyal to and concerned with the National Security Doctrine, David Pion-Berlin prefers to make the argument that there were in fact two National Security Doctrines, a soft-line version and a hard-line one.[13] Bacchus accepts the primacy of the two aforementioned factions, but also hypothesizes two other groups: "democratic nationalists" (who are identifiable to a

certain extent with the group called herein "legalists"); and a barely significant current of "authoritarian internationalists."[14] Various analysts have also devoted much discussion to the development of the National Security Doctrine in the Escola Superior de Guerra, its dissemination in military and civilian circles, and the degree to which the actions of the military government were guided by the doctrine.

From the discussions above, what can we conclude about the role of the National Security Doctrine and its influence on the success of the arms industry? What themes of the doctrine were common to the Sorbonne Group, the linha dura, the populist-rightist officers, and the "subversive elite" of tecnicos who worked within the regime? Which doctrinal themes separated the Sorbonne Group (as the doctrine's chief advocates) from the others?

As shown in Chapter I, the doctrine itself grew out of the intellectual tradition of geopolitical thought. The Brazilian version of the National Security Doctrine, developed in the ESG, treated a wide range of subjects, all of which were seen as part of an integrated whole. Using what it saw as a scientific approach, it sought to tie geopolitics, development and economics, domestic and global politics, cultural and psycho-social analysis together into one integrated philosophy which could serve as a blueprint for Brazil to follow in order to achieve modernization, unity, segurança e desenvolvimento. In its assumptions that

technological and industrial progress were indispensable for achieving these goals, the ESG shared assumptions common to other intellectual trends current in post-war Brazil. It is on this level that the affinity between the advocates of the doctrine and the corporate ideology of Adler's subversive elite is most apparent. Though the ESG made efforts to spread its doctrine by including civilians in its programs, as researchers, instructors and students, some analysts feel that the effects this strategy had on civilian elites was not as significant as sympathetic writers often claim.[15] Even without these efforts on the part of the ESG to influence civilians, it requires no leap of faith to understand that the technocratic civilian elite might be predisposed to agree with some of the approaches included in the doctrine. The economists, scientists and planners that made up this latter group clearly felt that the special skills and knowledge they offered their nation were those that would lead to its progress. That the officer corps, which had also undergone its process of "professionalization", was also predisposed to regard technology and industrialization as keys to progress cannot be doubted. Debates over the proper course for Brazil were common fare for officers of all political stripes in the post-war years, and such ideas not only came down from the ESG, but came in from other research institutes and political groups involved in the developmental debate. The influence of the National Security Doctrine within the officer corps is not solely attributable to the intellectual rigor and

persuasiveness of its staunchest formulators, nor just to its adoption into the courses at several levels of officer training. It also included many of the same assumptions about development that most other participants in the development debate shared.[16] It also fit well with the newly evolved self-image that the officers-cum-technocrats had of themselves.

However, there was a noticeable split in the officer corps. The Sorbonne Group adhered to the scientifically-oriented economic and development themes of the doctrine in opposition both to more nationalistic officers who resisted foreign investment or other meddling by the great powers, or to more populist officers who called for immediate action to ameliorate Brazil's social ills. To the extent that both the major military factions could be said to be following the National Security Doctrine (as Pion-Berlin asserts), the Sorbonne Group stressed national development; the linha dura stressed internal security and the fight against subversion.

During the linha dura administrations, when the fight against internal subversion was at its peak, the government was content to allow the civilian tecnicos a great deal of autonomy, as long as the latter continued to produce positive results. Even on more controversial issues, opposed by the duraduros, such as continued encouragement of foreign investment, the tecnicos managed to have their way. Often the technocrats had to compromise in some areas where the generals in power felt that political considerations must take

precedence. But the influence of the tecnicos in economic and development policies, and in guaranteeing a significant degree of autonomy for state-run enterprises, especially in defense and informatics industries, remained decisive.

On what grounds has it been asserted that the linha dura should be seen as having been guided more by the military's corporate ideology? First, in the ferocity with which the hard-liners pursued anti-subversive activities, one can see the motivation to preserve the military institution, which helped to prompt the 1964 coup in the first place, taken to its extreme. Any threat to social stability was a potential threat not only to the nation which the armed forces were meant to protect, but also to the military institution itself. As had been noted, the fate of the military institution in Castro's Cuba made a strong impression on many Brazilian officers.[17] Second, in those developmental goals the hard-liners chose to support, it was no accident that those projects linked to military progress and national security - arms, computers, and also nuclear research - were given the most extensive and consistent backing, even as other laudable goals - redistribution of wealth, social security, housing - languished or somehow fell through the cracks.

Many key events in the development of the arms industry were unpredictable and external. First, there was the scarcity of modern arms transfers to Brazil as a result of the Vietnam War. Second, there were the policies of U.S. administrations linking aid to human rights issues or nuclear

proliferation, which created an atmosphere of heightened nationalism. Third, there were the oil crises of 1974 and 1979. Fourth, changes in the world arms market first prompted European suppliers to seek new outlets, and later, the international arms market, especially in the Middle East, expanded in a way that Brazil was fortuitously poised to exploit. All of these events were beyond the control of the military government. Those which affected arms transfers had a predictable effect on the officer corps. They prompted actions to develop arms domestically.

How did the interaction of ideologies play out against the backdrop of the Brazilian arms industry? It was the concern of the Sorbonne Group to encourage economic stabilization, to revitalize industry, to acquire technology, and to prepare Brazil for a return to civilian rule. These themes definitely characterized the first military administration of Castello Branco, but they were also basic assumptions of Geisel and Figuereido, not to mention of General Golbery, who was active in all three of these regimes. To this end, Castello Branco's administration also opened the door for the tecnicos, who managed to successfully "infiltrate" (to continue with Adler's metaphor) major developmental projects of the subsequent regimes. Though the tecnicos had little apparent political power, their role was tremendously influential. In their goals, they had the effect of complementing the Sorbonne Group, and often achieved their goals in spite of the linha dura. Castello Branco and Golbery

did not, however, intend to establish an arms industry. By the time Geisel came to the presidency, the arms industry was already taking off, and as a sector which by then had proved itself, Geisel and Figuereido had interests, both as soldiers and as ESG developmentalists, to continue to nurture it.

The decisions to develop the arms industry were taken under Costa e Silva and Medici. Nevertheless, the way which the tecnicos chose to develop it, as well as the rest of the economy, was often in conflict with the way the officer corps would have wished. Opposition to foreign investment or debates over control of key enterprises of the industry (such as Imbel) often pitted the officers against the tecnicos. Yet, thanks to the autonomy that the tecnicos were allowed, they were able to deliver the short-lived, but impressive economic miracle, as well as the longer lasting development of the domestic defense industry. The military's political and corporate needs were served by these successes, to be sure, but ambivalent feelings toward their civilian counterparts persisted among the hard-line officers. The military government set the broad parameters and priorities, and the tecnicos performed well with what they were given. If the military leaders insisted on embarking on grandiose projects of dubious economic value but great political value, the tecnicos could not alter this.

Throughout this period, the themes of the National Security Doctrine served as the lingua franca of the regime. If the Sorbonne Group, and its tecnico allies, attempted to

remain faithful to its economic and developmental themes, the linha dura still justified its policies with references to the National Security Doctrine.[18] As the reference point to which the leaders of both factions referred, one can find evidence for Campos Coelho's assertion that despite differences in interpretation of its themes, the National Security Doctrine had a role as a unifying ideology for the armed forces.[19]

It was not that the doctrine itself was at odds with the corporate ideology of the military. Having been developed primarily within the armed forces, many of its themes could be seen to reflect distilled military interests. The doctrine was nationalist, and dealt at length with warfare, if warfare of a new kind, and of the armed forces' role in the Cold War. If the ESG faction continued to stress a scientific approach to development over other themes, it was not in principle opposed to the fight against subversion. It was, though, opposed to the extremes to which the hard-liners went. When linha dura officers fought their "dirty war," it was justified in terms of the doctrine. When many later called for immediate efforts to address Brazil's social ills, they may have opposed the more dispassionate insistence of the Sorbonne Group and its tecnico allies that, according to the doctrine, development must precede redistribution. But the amelioration of social disparities was a long-term goal of the doctrine. The above picture illustrates another aspect of the role of the National Security Doctrine within the regime. The ESG faction tended to remain closer to the dispassionate quasi-

scientific spirit which is the hallmark of the doctrine (notwithstanding the rise in nationalistic sentiments engendered by confrontations with the U.S.). The hard-line officers, more mercurial and responding more readily to the military's interests, still couched their positions in terms of the doctrine.

The arms industry was established in the first place to serve military interests. The longstanding search for arms independence had conditioned the response to circumstances affecting the military. When modern arms were not forthcoming from the U.S., the military government responded by commissioning prototypes for needed units, and provided the wherewithal to produce them. However, this project succeeded because the approach was unique. It was handled by technocrats with a relative degree of autonomy from direct military control. They were content to rely on the private sector when possible, and even spurred the private sector to adopt its proper role when necessary. But they were more than willing to call for state intervention in economic and development activities when they felt it appropriate. The overall utilitarian (rather than hostile and nationalistic) approach to foreign investment prevailed throughout. Such approaches are clearly consistent with the National Security Doctrine. The ideology of the "subversive elite" was close to that of the Sorbonne Group, at least on economic, developmental, managerial and technical themes. Furthermore, the Sorbonne Group brought key tecnicos from this elite into

government agencies and enterprises, and granted them their
initial autonomy. For these reasons one can say that the arms
industry succeeded by following a course in line with the
National Security Doctrine. In short, the arms industry began
as a result of the corporate interests of the military. It
succeeded because it could distance itself from direct
military control, and because it developed in accordance with
Sorbonne Group ideology.

What is the value of a domestic arms industry for a
developing Third World country? Does it actually give that
nation the means to develop in other areas? Does it increase
that nation's political and economic independence?

Viewed theoretically, an arms industry would seem to
hold out potential advantages. Modern weapons systems involve
the highest levels of technology. They produce expensive
items which, if successfully marketed, can attract foreign
exchange. Insofar as it is assumed that the domestic armed
forces need such products, being able to provide them
domestically would reduce expensive imports and decrease
dependence on industrialized powers.

In the case of Brazil, the effect of technological spin-
off seems to have been much smaller than its promise. The
tendency had been for more firms and resources to be brought
into the arms industry complex, rather than the spread of
valuable technology and production methods spurring
advancement in other sectors. Much of the export value of
Brazil's arms trade was owed to the fortuitous situation which

prevailed in the international arms market in the late 1970s and 1980s. Elements of this situation included the "baroque arms production" on the part of the industrialized countries (that is, production of inordinately complex high-technology weapons systems), which created arms of a technological complexity that made them unusable in Third World countries.[20] This provided a niche for middle-level-technology arms systems which Brazil skillfully exploited.[21] The arms race then rampant in the Third World, especially in the Middle East, as a result of petro-dollars and of the conflict between the oil-rich Iran and Iraq, also created a bonanza for Brazil. However, the arms industry was not established with the foreknowledge that there would be an oil crisis, or that war would break out between Iran and Iraq in 1980.

It may be doubted that the arms industry in Brazil would have been initiated at all, or if initiated, that it would have been far less successful, had the following situations not occurred. (1) Had Castello Branco and Golbery succeeded in returning the army to the barracks by 1966 as they had planned, some stimulation of production for basic military equipment would have occurred, but the step to establish a wide-ranging, technology-intensive arms industry would not have been taken. (2) As a hard-line military administration was in power as American arms supplies dried up and Western European suppliers aggressively sought new markets, the military's long-standing quest for domestic arms production could be initiated under fortuitous circumstances. (3) As

the development of the arms industry gained momentum, the arms race accelerated. The middle-level-technology weaponry produced in Brazil was, as it were, "made to order" for many developing countries, especially those like Iraq and Iran, which were engaged in hostilities at the time. Another contingent factor, namely the oil crisis, had also created the circumstances wherein oil producing states had petroleum to barter and petro-dollars to spend for Brazilian arms. (4) The convergence between the ideologies of the Sorbonne Group and the developmental tecnicos made for a fortuitous alliance. Many tecnicos were brought into key agencies and enterprises, and allowed a significant degree of autonomy. This autonomy was not unduly restricted by the duraduros, whose chief concerns lay elsewhere, so long as the tecnicos continued to produce positive results. This helped to keep the arms industry relatively free from direct military interference, allowing its managers to take decisions according to economic criteria.

One might also speculate on the extent to which the success of the arms industry was related to the economic miracle. Whether one posits as the cause for economic recovery in 1968 the groundwork laid by the Castello Branco regime, or the fact that the cyclical nature of the Brazilian economy was such that it was likely to occur anyway[22], the economic fortunes of Brazil at the time may well have been different in the absence of the arms industry. Industrial expansion might have occurred after 1968 without the benefits

of the arms industry (such as the reduction of expensive imports of military goods with the complementary effect of production, employment and replacement that the domestic industry offered). Because of political bargaining or the search for public support, economic decisions taken for their expected political pay-off were still likely to have been made (e.g. Medici's pharoanic and debt-incurring projects). The boom cycle would most likely have ended, with or without an oil crisis[23], but definitely without the benefits of arms exports, which could bring in foreign exchange and oil. Computers may have been the one sector which could have brought in new levels of technology and allowed a breakthrough into new markets. This is one case where some might argue that developmental policies rather than military interest created a successful, high-technology sector. However, it has been shown that the military government's grounds for embarking on its computer projects in the first place were military rather than economic.

In other sectors, opportunities such as those that led to the establishment of the arms industry were not apparent. The economic successes of Brazil's non-defense sectors in the 1968-1974 period shared few, if any, of the characteristics that made for the boom in defense-related industries. For example, the most dynamic non-defense industry was the automobile sector[24], which had started in the 1950s and was still largely foreign owned and directed.

While the economic miracle was impressive, levels of growth were not, in fact, remarkably different from those achieved under the populist regime of Kubitschek.[25] If one compares the overall economic record of the military regime to the economic performance of Brazil between 1945 and 1964, it turns out that average growth and decline of GNP, and the rates of GDP per capita were essentially the same for the two periods, while inflation was twice as high in the waning years of the military regime than in the years of Quadros and Goulart.[26] The policies pursued during the best economic years of the Kubitschek regime and the years of the economic miracle of the military regime had many characteristics in common. Kubitschek also relied heavily on tecnicos, to whom he gave a large degree of autonomy. He also encouraged then unprecedented levels of foreign investment.[27] This being the case, assertions that the National Security Doctrine provided a unique blueprint which helped foster over-all economic success become much less convincing. The truly dramatic difference between these two periods is that in the latter Brazil became a major arms exporter. It still remains to be shown whether overall economic development in a Third World country can be furthered by the pursuit of a domestic arms industry.

Brazil's arms industry did seem to afford its government some political independence. Insofar as industrialized powers have used military aid for leverage in their dealings with Third World countries, the degree to which the U.S. was able

to use such leverage was, at least for a time, seriously reduced. Under President Geisel, the Brazilian government was sure enough of its newly won arms independence to confidently renounce the Military Assistance Program agreements in protest over U.S. interference in Brazil's efforts to gain nuclear technology from Germany. Then, within the next twenty-four hours, Brazil announced arms agreements with Washington's nemesis, Libya. This newly won independence would turn out to be short-lived.

> However, the argument is also put forward, not least by the Brazilian armed forces, that both the quality of Brazilian arsenals and Brazil's future competitiveness on the world market are dependent on access to US high technology. To achieve this, national control of the arms industry and exports would have to be sacrificed. Several of the major US defense contractors are interested in joint arms production ventures with Brazil, but only on condition that Brazil signs an agreement which would prevent Brazil from transferring sensitive technology to countries hostile to the United States.[28]

Brazil was briefly able to profit from the availability of appropriate technology from Europe, and from the expansion of the world arms market in the 1980s. But even at its new levels of technology, it finds itself dependent on superior technology. With the end of the Iran-Iraq War, not to mention the Cold War, and the contraction of the world arms market, the freedom of maneuver afforded by its arms exports has, at least for the time being, disappeared. In the informatics sector as well, Brazil's initial protectionist steps were indispensable to getting the domestic computer industry off the ground. But in this sector Brazil now finds that its

protected market policies have turned into a barrier to future expansion and upgrading.[29]

In the end, the economic policies spawned by the National Security Doctrine seem not to have been entirely unique. Insofar as the doctrine's underlying scientific spirit allowed for autonomy for the technocrats to undertake planning and development activities in line with a rationalist economic approach, they were successful. But this approach also achieved success under Kubitschek. In the specific cases of the defense and informatics industries, the autonomy granted to the tecnicos seemed to be especially valuable, given the tendency for officers to pit their perceptions of military needs against the more dispassionate analysis of the civilian tecnicos. One must separate the promise of general development, which the advocates of the National Security Doctrine would claim for security related hi-tech industries, and which have not been fulfilled, from the specific successes of these sectors. On the one hand, spin-off and political independence derived from the arms industry were much more limited than advocates had claimed. On the other hand, by any account, Brazil's success with its defense industry was impressive. If the National Security Doctrine failed to deliver on its promise to make Brazil into a first-level industrialized nation, it did have a role to play in the development of Brazil's defense industry itself. Ironically, the advocates of the National Security Doctrine achieved this

by protecting the military's pet project from the harmful interference of the military itself.

.

ENDNOTES - CHAPTER V: CONCLUSIONS - IDEOLOGY AND THE ARMS INDUSTRY

1. Michel Schooyans, Destin du Bresil: La Technocratie militaire et son Ideologie (Gembloux, Belgium: Editions J. Duculot, S.A., 1973), pp. 45-46.

2. See specifically, Frank McCann, "The Brazilian Army and the Pursuit of Arms Independence, 1899-1979," in Benjamin Franklin Cooling, ed., War, Business and World Military-Industrial Complexes. Port Washington, N.Y.: Kennikat Press Corp., 1981, and Frank McCann, "Origins of the 'New Professionalism' of the Brazilian Military," Journal of Interamerican Studies and World Politics. Vol. 21 NO. 4 (November 1979), pp. 505-522.

3. See discussion, Chapter II - Part II, pp. 137-139, above.

4. Ricardo Antonio Silva Seitenfus, O Brasil de Getúlio Vargas e a Formação dos Blocos: 1930-1942 (São Paulo: Companha Editora Nacional, 1985), pp. 281-284.

5. Frank McCann, D., Jr., "The Brazilian Army and the Problem of Mission, 1939-1964," Journal of Latin Americans Studies. Vol. 12, Pt. 1, (May 1980), pp. 117-8.

6. Ethan B. Kapstein, "The Brazilian Defense Industry and the International System," Political Science Quarterly. Volume 105, No. 4 (Winter 1990-1991) pp. 593.

7. Renato Dagnino, personal interview, 24 May 1989, Campinas, Brazil. Also, Roberto de Godoy, personal interview, 26 May, 1989, Campinas, Brazil.

8. "Calcinhas Fardadas." Veja 25 Sept. 1991: 34-37.

9. Maria Helena Moreira Alves, State and Opposition in Military Brazil (Austin, TX: University of Texas Press, 1985) p. 7.

10. These themes are basic to writers such as Alves, State and Opposition in Military Brazil (Austin, TX: University of Texas Press, 1985), and Jorge A. Tapia Valdes, El Terrorismo de Estado: La Doctrina de la Seguridad Nacional en :1 Cono Sur (Mexico City: Editorial Nueva Imagen, 1980)

11. See discussion in Chapter III - Part II, p. 178, above.

12. Bacchus, Mission in Mufti: Brazil's Military Regimes, 1964-1985 (New York: Greenwood Press, 1990), pp. 70-72.

13. David Pion-Berlin, "Latin American National Security Doctrines: Hard- and Softline Themes," Armed Forces and Society. Vol. 15, No. 3 (Spring 1989) pp. 411-429.

14. Bacchus, Mission in Mufti, pp. 70-73.

15. Alexandre de S. C. Barros. Personal interview. 5 June 1989. Brasilia, Brazil.; also, Domicio Proenca Junior. Personal interview. 6 June 1989. Brasilia, Brazil.

16. Alain Rouquie, "Les Processus Politiques dans les Partis Militaires au Bresil," in Rouquie, ed., Les Partis Militaires au Bresil (Paris: Presses de la Fondation Nationale des Sciences Politiques, 1980) p. 15.

17. See discussion in Chapter II, Part III, pp. 140-141, above.

18. Alfred Stepan, Rethinking Military Politics: Brazil and the Southern Cone (Princeton: Princeton University Press, 1988) pp. 46-47.

19. Edmundo Campos Coelho, Em Busca da Identidade:O Exercito e a Politica na Sociedade Brasileira (Rio de Janeiro: Forense-Universitaria, 1976), pp. 164, 173.

20. Renato Dagnino and Proenca Junior, "Arms Production and Technological Spinoffs," [Mimeo] (Latin American Studies Association Conference, New Orleans, 1988), p. 15.

21. Rodney W. Jones and Steven A. Hildreth, Modern Weapons and Third World Powers (Boulder, Colo.: Westview Press, 1984) p. 54.

22. Luis Bresser Pereira, Development and Crisis in Brazil: 1930-1983 (Boulder, CO: Westview Press, 1984), p. 176; see also Ignacio Rangel, Economia: Milagre e Anti-Milagre (Rio de Janeiro: Jorge Zahar Editor, 1985), pp. 29-40.

23. Bresser Pereira, Development and Crisis, p. 176.

24. Thomas E. Skidmore, Politics of Military Rule, 1964-1985 (New York: Oxford University Press, 1988), pp. 139-140.

25. Stefan H. Robock, Brazil: A Study in Development Progress (Lexington, MA: Lexington Books, 1975), p. 29.

26. Glaucio Ary Dillon Soares, and Nelson do Valle Silva, "Regime Politico e Crescimento Economico no Brasil, 1945-1984," Dados Vol. 32 No. 1 (1989) pp.125-138.

27. Robock, Brazil p. 29; Bresser Pereira, Development and Crisis, p. 27.

28. SIPRI, World Armaments and Disarmament: SIPRI Yearbook 1989 (London: Taylor and Francis, 1987) p. 199.

29. "Pressa de Computadora." Istoé Senhor 25 Sept. 1991: 40-43; Rodrigues, Marisa, "Exposição: A Feira dos Bilhões." Visão 25 Sept. 1991: 36-40.

BIBLIOGRAPHY

Abrahamsson, Bengt, <u>Military Professionalism and Political Power</u>. Beverly Hills: Sage Publications, 1972.

Adler, Emanuel, <u>The Power of Ideology: The Quest for Technological Autonomy in Argentina and Brazil</u>. Berkeley: University of California Press, 1987.

Almeida, José, <u>A Implantação da Industria Automobilistica no Brasil</u>. Rio de Janeiro: Fundação Getúlio Vargas, 1972.

Alves, Marcio Moreira, "The Political Economy of the Brazilian Technocracy" <u>Berkely Journal of Sociology</u>. Vol. XIX (1974-1975), pp. 109-124.

Alves, Maria Helena Moreira, <u>State and Opposition in Military Brazil</u>. Austin, TX: University of Texas Press, 1985.

Amaral Gurgel, Jose Alfredo, <u>Segurança e Democracia: Uma Reflexão Politica</u>. 3d ed. Rio de Janeiro: Livraria Jose Olympio Editora, 1978.

Araujo, Antonio Andrade de, Herick Marques Caminha, Eurico da Costa Carvalho and Omar Gonçalves da Motta, "Elementos Economicos do Poder Nacional" <u>Revista Brasileira de Estudos Politicos</u>. Nr. 21 (July 1966) pp. 183-208.

Arruda, Antonio de, <u>A Escola Superior de Guerra: Historia de sua Doutrina</u>. 2d ed. São Paulo: Edicões GRD, 1983.

Arruda, Antonio de, Wilson de Oliveira Freitas, Jose Morais Rego Costa and Jose Camarinha Nascimento, "Elementos Psicossociais do Poder Nacional" <u>Revista Brasileira de Estudos Politicos</u>. Nr. 21 (July 1966) pp. 157-182.

Ary Dillon Soares, Glaucio and Nelson do Valle Silva, "Regime Politico e Crescimento Economico no Brasil, 1945-1984," <u>Dados</u>. Vol. 32 No. 1 (1989) pp.125-138.

Bacchus, Wilfred A., "Development Under Military Rule: Factionalism in Brazil," <u>Armed Forces and Society</u>. Vol. 12, No. 3 (Spring 1986) pp. 401-418.

--------, "Long-Term Military Rulership in Brazil: Ideologic Concensus Dissensus, 1963-1983," <u>Journal of Political and</u>

Military Sociology. Vol. 13, No. 1 (Spring 1985) pp. 99-123.

--------, Mission in Mufti: Brazil's Military Regimes, 1964-1985. New York: Greenwood Press, 1990.

Backheuser, Everardo, Curso de Geopolitica Geral e do Brasil. Rio de Janeiro: Grafica Laemmert, Limitada, 1948.

--------, "Geopolitica e Geografia Politica." Revista Brasileira de Geografia. Vol. IV, Nr. 1 (Jan.-Mar. 1942), pp. 21-38.

--------, Problemas do Brasil (Estructura Geopolitica: O Espaço. Rio de Janeiro: Grupo Editor Omnia, 1933.

Barros, Alexandre de S. C., "Brazil," in James Everett Katz, ed., Arms Production in Developing Countries: An Analysis of Decision Making. Lexington, Mass.: Lexington Books, 1984.

--------, Personal interview. 5 June 1989. Brasilia, Brazil.

Beaufre, Andre, La Guerra Revolucionaria: Las Nuevas Formas de la Guerra. Trans. Juan T. Goyret. Buenos Aires: Editorial Almena, 1979.

Braga, Antonio Saturnino, "Introdução ao Estudo da Segurança Nacional" Revista Brasileira de Estudos Politicos. Nr. 21 (July 1966) pp. 7-31.

Braga, Antonio Saturnino, Fernando Gonçalves Reis Vianna, Virgilio Pires de Sa and Alfredo de Almeida Paiva, "Elementos Politicos do Poder Nacional" Revista Brasileira de Estudos Politicos. Nr. 21 (July 1966) pp. 135-156.

Bresser Pereira, Luiz, Development and Crisis in Brazil: 1930-1983. trans. Marcia Van Dyke. Boulder, CO: Westview Press, 1984.

Brigagão, Clovis, "The Brazilian Arms Industry," Journal of International Affairs. Vol. 40/Nr. 1 (Summer 1986), pp. 101-114.

--------, "Brazil's Military Industry: A Discussion of Recent Developments," LARU Working Paper Nr. 27 (1979), pp. 22-41.

--------, O Mercado da Segurança. Rio de Janeiro: Editora Nova Fronteira, 1984.

————————, A Militarização da Sociedade. Rio de Janeiro: Jorge Zahar Editor, 1985.

Burgess, Mike and Daniel Wolf, "The Concept of Power in the Brazilian Higher War College (ESG)" LARU Working Paper Nr. 27 (1979): 1-21.

Burns, E. Bradford, A History of Brazil. New York: Columbia University Press, 1970.

————————, Nationalism in Brazil: A Historical Survey. New York: Frederick A. Praeger, Publishers, 1968.

"Calcinhas Fardadas." Veja 25 Sept. 1991: 34-37.

Caminha, Herick Marques, Ismael da Motta Paes and Paulo Emilio Souto, "Estrategia Nacional" Revista Brasileira de Estudos Politicos. Nr. 21 (July 1966) pp. 235-286.

Child, Jack, Geopolitics and Conflict in South America: Quarrels Among Neighbors. New York: Praeger Publishers, 1985.

Campos Coelho, Edmundo, Em Busca da Identidade: O Exercito e a Politica na Sociedade Brasileira. Rio de Janeiro: Forense-Universitaria, 1976.

Comblin, Jose, Doctrina de Seguridad Nacional. 2 vols. San Jose, Costa Rica: Editorial Nueva Decada, 1988.

————————, El Poder Militar en America Latina. Salamanca, Spain: Ediciones Sigueme, 1978.

Comeliau, Christian and Ignacy Sachs, Histoire, Culture, Styles de Developpement: Bresil et Inde. Paris: Editions L'Harmattan, 1988.

Conniff, Michael L., "The Tenentes in Power: A New Perspective on the Brazilian Revolution of 1930" Journal of Latin American Studies Vol.10, Pt.I (May 1978), pp. 61-82.

Cruz Costa, João, A History of Ideas in Brazil: The Development of Philosophy in Brazil and the Evolution of National History. Trans. Suzette Macedo. Berkeley: University of California Press, 1964.

Dagnino, Renato P., "A Industria de Armamentos Brasileira: Desenvolvimento e Perspectivas," in Ricardo Arnt, ed., O Armamentismo e o Brasil: A Guerra Deles. São Paulo: Editora Brasiliense SA, 1985.

————————, Personal interview. 24 May 1989. Campinas, Brazil.

Dagnino, Renato and Domicio Proenca Junior, "Arms Production and Technological Spinoffs," [Mimeo] Latin American Studies Association Conference, New Orleans, 1988.

Domes, Jurgen, "Political Differentiation in Taiwan: Group Formation Within the Ruling Party and the Opposition Circles, 1979-1980," Asian Survey Vol. XXI, Nr. 10 (Oct 1981), pp. 1011-1028.

Dos Santos, Norma Breda, "Geopolitica e Segurança Nacional" Politica e Estrategia. Vol. V No. 4 (Oct.-Dec. 1987) pp. 550-574.

Drury, Bruce R., "Intransigence and Rebellion: The Continuing Struggle for Land Reform in Brazil" [Mimeo] Southwestern Political Science Association Conference, Ft. Worth, TX, March 28-31, 1990.

Dulles, John W. F., Vargas of Brazil: A Political Biography. Austin, TX: University of Texas Press, 1967.

Evans, Peter B., "Declining Hegemony and Assertive Industrialization: U.S.-Brazil Conflicts in the Computer Industry," International Organization Vol. 43, Nr. 2 (Spring 1989) pp. 207-238.

--------, "State, Capital, and the Transformation of Dependence: The Brazilian Computer Case," World Development Vol. 14, Nr. 7, (July 1986) pp. 791-808.

Fiechter, Georges-Andre, Brazil Since 1964: Modernization Under a Military Regime. Trans. Alan Braley. New York: John Wiley & Sons, 1975.

Franko Jones, Patrice, "The Brazilian Defense Industry: A Case Study of Public-Private Collaboration." Diss. University of Notre Dame, 1986.

Gauthier, A. and J. Domingo, Le Bresil: Puissance et Faiblesse d'un Geant du Tiers-Monde. Paris: Breal Editions, 1988.

Gendzier, Irene L., Managing Political Change: Social Scientists and the Third World. Boulder, Colo.: Westview Press, 1985.

Glassner, Martin Ira, and Harm J. de Blij, Systematic Political Geography. New York: John Wiley & Sons, 1980.

Glick, Edward Bernard, Peaceful Conflict: The Non-Military Use of the Military. Harrisburg, Pa.: Stackpole Books, 1967.

Godoy, Roberto de, Personal interview. 26 May 1989. Campinas, Brazil.

Goes, Walter de, O Brasil do General Geisel: Estudo do Processo de Tomada de Decisão no Regime Militar-Burocraticao. Rio de Janeiro: Editora Nova Fronteira, 1978.

Goes Monteiro, Gen. Pedro Aurello de, A Revolução de 30 e a Finalidade Politica do Exercito. Rio de Janeiro: Adersen - Editores, 1934.

Golbery de Couto e Silva, Aspectos Geopoliticos do Brasil. [Rio de Janeiro]: Biblioteca Do Exercito - Editora, 1957.

--------, Geopolitica do Brasil. 2d ed. Rio de Janeiro: Livraria Jose Olympio Editora, 1967.

Gouvea Neto, Raul de, "How Brazil Competes in the Global Defense Industry," Latin American Research Review. Vol. 26, No. 3 (1991) pp. 83-107.

Graham, Thomas W., "India," in James Everett Katz, ed., Arms Production in Developing Countries: An Analysis of Decision Making. Lexington, Mass.: Lexington Books, 1984.

Gyorgy, Andrew, Geopolitics: The New German Science. University of California Publications in International Relations, Vol. 3. Berkeley, Calif.: University of California Press, 1944.

Hayes, Robert A., The Armed Nation: The Brazilian Corporate Mystique. Tempe, Ariz.: Arizona State University, 1989.

--------, "The Formation of the Brazilian Army and the Military Class Mystique, 1500-1853," in Henry H. Keith and Robert A. Hayes, eds., Perspectives on Armed Politics in Brazil. Tempe, Ariz.: Arizona State University, 1976.

--------, "The Military Club and National Politics in Brazil," in Henry H. Keith and Robert A. Hayes, eds., Perspectives on Armed Politics in Brazil. Tempe, Ariz.: Arizona State University, 1976.

Hudson, Rexford A., "The Brazilian Way to Technological Independence: Foreign Joint Ventures and the Aircraft Industry," Inter-American Economic Affairs. Vol. 37, No. 2 (Autumn 1983) pp. 23-43.

Huntington, Samuel P., "Political Development and Political Decay," in Bienen, Henry, ed., The Military and Modernization. Chicago: Aldine-Atherton, Inc., 1971.

--------, The Soldier and the State. Cambridge, Mass.: Harvard University Press, 1957.

Jones, Rodney W. and Steven A. Hildreth, Modern Weapons and Third World Powers. Boulder, Colo.: Westview Press, 1984.

Kapstein, Ethan B., "The Brazilian Defense Industry and the International System," Political Science Quarterly. Volume 105, No. 4 (Winter 1990-1991) pp. 579-596.

Kjellén, Rudolf, Der Staat als Lebensform. Trans. Margarethe Langfeldt. Leipzig: S. Hirzel Verlag, 1917.

Kucinski, Bernardo, Abertura, a Historia de uma Crise. São Paulo: Editora Brasil Debates, 1982.

Lieuwen, Edwin, Generals Vs. Presidents: Neomilitarism in Latin America. New York: Frederick A. Praeger, Publishers, 1964.

Mackinder, Halford J., Democratic Ideals and Reality: With Additional Papers. Ed. Anthony J. Pearce. New York: W.W. Norton & Co., Inc., 1962.

--------, "The Geographical Pivot of History."Democratic Ideals and Reality: With Additional Papers. Ed. Anthony J. Pearce. New York: W.W. Norton & Co., Inc., 1962.

--------, "The Round World and the Winning of the Peace." Democratic Ideals and Reality: With Additional Papers. Ed. Anthony J.Pearce. New York: W.W. Norton & Co., Inc., 1962.

Magalhaes, Irene Maria, Maria Aparecida Alves Hime and Nancy Alessio, "Segunda e Terceira Ano do Governo Costa e Silva," Dados. No. 8 (1971) pp. 152-233.

Mahan, Alfred T., The Influence of Sea Power Upon History, 1660-1783. 25th. ed. Boston: Little, Brown, and Co., 1917.

McCann, Frank D., Jr., "The Brazilian Army and the Problem of Mission, 1939-1964," Journal of Latin Americans Studies. Vol. 12, Pt. 1, (May 1980), pp. 107-126.

--------, "The Brazilian Army and the Pursuit of Arms Independence, 1899-1979," in Benjamin Franklin Cooling, ed., War, Business and World Military-Industrial Complexes. Port Washington, N.Y.: Kennikat Press Corp., 1981.

--------, "Origins of the 'New Professionalism' of the Brazilian Military," Journal of Interamerican Studies and

World Affairs. Vol. 21 NO. 4 (November 1979), pp. 505-522.

Meira Mattos, Carlos de, Brasil - Geopolitica e Destino. Rio de Janeiro: Livraria Jose Olympio, 1975.

--------, "Segurança Nacional: Ideologia ou Necessidade Inerente ao Estado?" Politica e Estrategia. Vol. V No. 4 (Oct.-Dec. 1987) pp. 575-583.

Motta, Omar Gonçalves da, "Introdução ao Estudo da Segurança Nacional: Politica e Desenvolvimento" Revista Brasileira de Estudos Politicos. Nr. 21 (July 1966) pp. 33-69.

Needler, Martin C., "Political Development and Military Intervention in Latin America," in Bienen, Henry, ed., The Military and Modernization. Chicago: Aldine-Atherton, Inc., 1971.

Nolan, Janne E., Military Industry in Taiwan and South Korea. Houndsmills, UK: Macmillan Press, 1986.

O'Donnell, Guillermo, "Toward an Alternative Conceptualization of South American Politics," in Peter F. Klaren and Thomas J. Bossert, eds., Promise of Development: Theories of Change in Latin America. Boulder, Colo.: Westview Press, 1986.

Oliveira, Eduardo Dominguez de, Ismael da Mota Paes and Paulo Emilio Souto, "O Poder Nacional: Considerações Gerais" Revista Brasileira de Estudos Politicos. Nr. 21 (July 1966) pp. 101-134.

Oliveira, Eduardo Dominguez de, "Segurança Nacional - Conceitos Fundamentais" Revista Brasileira de Esudos Politicos. Nr. 21 (July 1966) pp. 71-99.

Oliveira, Eliezer Rizzo de, As Forças Armadas: Politica e Ideologia No Brasil (1964-1969). Petropolis, Brazil: Vozes, 1976.

Parker, Geoffrey, Western Geopolitical Thought in the Twentieth Century. New York: St. Martin's Press, 1985.

Peixoto, Antonio Carlos, "Armee et Politique au Bresil," in Alain Rouquie, ed., Les Partis Militaires au Bresil. Paris: Presses de la Fondation Nationale des Sciences Politiques, 1980.

Perlmutter, Amos and Valerie Plare Bennett, The Political Influence of the Military: A Comparative Reader. New Haven: Yale University Press, 1980.

Perry, William and Juan Carlos Weiss, "Brazil," in James Everett Katz, ed., The Implications of Third World Military Industrialization: Sowing the Serpents' Teeth. Lexington, Mass.: Lexington Books, 1984.

Pinochet Ugarte, Augosto, Geopolitica. 1968. 2nd ed. Santiago, Chile: Editorial Andres Bello, 1974.

Pion-Berlin, David, "Latin American National Security Doctrines: Hard- and Softline Themes," Armed Forces and Society. Vol. 15, No. 3 (Spring 1989) pp. 411-429.

"Pressa de Computadora." Istoé Senhor 25 Sept. 1991: 40-43.

Proenca Junior, Domicio, "Guns and Butter? Arms Industry, Technology and Democracy in Brazil," Bulletin of Peace Proposals. Vol. 21, No. 1 (March 1990) pp. 49-57.

--------, Personal interview. 6 June 1989. Brasilia, Brazil.

Ramamurti, Ravi, State-Owned Enterprises in High Technology Industries: Studies in India and Brazil. New York: Praeger Publishers, 1987.

Rangel, Ignacio, Economia: Milagre e Anti-Milagre. Rio de Janeiro: Jorge Zahar Editor, 1985.

Ratzel, Friedrich, The History of Mankind. Trans. A. J. Butler. Vol. I. London: Macmillan and Co., Ltd., 1896.

--------, "The Territorial Growth of States," Scottish Geographical Magazine. Vol. XII, No. 7 (July 1896) pp. 351-361.

Reiser, Stewart, The Israeli Arms Industry: Foreign Policy, Arms Tranfers, and Military Doctrine in a Small State. New York: Holmes & Meier, 1986.

Rengifo, Antonio, New Institutional Ideology in Latin American Military Coups: Brazil and Peru. Diss. Texas Christian University, 1979. Ann Arbor: UMI, 1981. 7923011.

Robock, Stefan H., Brazil: A Study in Development Progress. Lexington, MA: Lexington Books, 1975.

Rodrigues, Marisa, "Exposição: A Feira dos Bilhões." Visão 25 Sept. 1991: 36-40.

Rouquie, Alain, "Les Processus Politiques dans les Partis Militaires au Bresil," in Alain Rouquie, ed., Les Partis Militaires au Bresil. Paris: Presses de la Fondation Nationale des Sciences Politiques, 1980.

Ruellan, Denis and Alain Ruellan, Le Bresil. Paris: Editions Karthala, 1989.

Sader, Emir and Ken Silverstein, Without Fear of Being Happy: Lula, the Workers Party and Brazil. London: Verso, 1991.

Sampaio, Nelson de Souze, "As Doutrinas Politicas Contemporaneas e suas Relações com a Segurança Nacional" Revista Brasileira de Estudos Politicos. Vol. I Nr. 1 (Dec. 1956) pp. 70-93.

Schooyans, Michel, Destin du Bresil: La Technocratie militaire et son Ideologie. Gembloux, Belgium: Editions J. Duculot, S.A., 1973.

Seitenfus, Ricardo Antonio Silva O Brasil de Getúlio Vargas e a Formação dos Blocos: 1930-1942. São Paulo: Companha Editora Nacional, 1985.

Silveira, Jose Britto da, Sylvio Caielli de Siqueira and Alzir Benjamin Chaloub, "Elementos Militares do Poder Nacional" Revista Brasileira de Estudos Politicos. Nr. 21 (July 1966) pp. 209-233.

Skidmore, Thomas E., "Getúlio Vargas and the Estado Novo, 1937-1945: What Kind of Regime?" in Joseph S. Tulchin, ed., Problems in Latin American History: The Modern Period. (New York: Harper & Row, 1973), pp. 243-249.

--------, The Politics of Military Rule, 1964-1985. New York: Oxford University Press, 1988.

Skidmore, Thomas E. and Peter H. Smith, Modern Latin America. New York: Oxford University Press, 1984.

Stepan, Alfred, The Military in Politics: Changing Patterns in Brazil. Princeton: Princeton University Press, 1971.

--------, Rethinking Military Politics: Brazil and the Southern Cone. Princeton: Princeton University Press, 1988.

Steinberg, G.M., "Israel: High Technology Roulette," in Michael Brzoska and Thomas Ohlson, eds., Arms Production in the Third World. London: Taylor and Francis, 1986.

Stockholm International Peace Research Institute, World Armaments and Disarmament: SIPRI Yearbook 1989. London: Taylor and Francis, 1982.

--------, World Armaments and Disarmament: SIPRI Yearbook 1987. London: Taylor and Francis, 1987.

--------, World Armaments and Disarmament: SIPRI Yearbook 1988. London: Taylor and Francis, 1988.

--------, World Armaments and Disarmament: SIPRI Yearbook 1989. London: Taylor and Francis, 1989.

Syvrud, Donald E., Foundations of Brazilian Economic Growth. Stanford CA: Hoover Institution Press, 1974.

Tapia Valdes, Jorge A., El Terrorismo de Estado: La Doctrina de la Seguridad Nacional en el Cono Sur. Mexico City: Editorial Nueva Imagen, 1980.

Tavora, Juarez, Uma Politica de Desenvolvimento Para o Brasil. Rio de Janeiro: Livraria Jose Olympio Editora, 1962.

Thomas, Raju G. C., "India," in Edward A. Kolodziej and Robert E. Harkavy, eds., Security Policies of Developing Countries. Lexington, Mass.: Lexington Books, 1982.

Toledo, Caio N. de, "Teoria e Ideologia na Perspectiva do ISEB," in Reginaldo Moraes, Ricardo Antunes and Vera B. Ferrante, eds., Inteligencia Brasileira. São Paulo: Editora Brasiliense, S.A., 1986.

Travassos, Mario, Projeção Continental do Brasil. 3rd ed. São Paulo, Brazil: Companhia Editora Nacional, 1938.

United States Congress, Office of Technology Assessment, Global Arms Trade. Washington, D.C.: U.S. Government Printing Office, 1991.

Van Doorn, J., "Ideology and the Military" in Morris Janowitz and Jacques Van Doorn, eds., On Military Ideology. Rotterdam: Rotterdam University Press, 1971.

--------, The Soldier and Social Change. Beverly Hills: Sage Publications, 1975.

Waisman, Carlos H., "Argentina: Economic and Political Implications," in James Everett Katz, ed., The Implications of Third World Military Industrialization: Sowing the Serpents' Teeth. Lexington, Mass.: Lexington Books, 1984.

Weigert, Hans W., Generals and Geographers: The Twilight of Geopolitics. New York: Oxford University Press, 1942.

Wesson, Robert, The Latin American Military Institution. New York: Praeger Publishers, 1986.

Young, Jordan M., Brazil 1954-64: End of a Civilian Cycle. New York: Facts on File, Inc., 1972.

Zirker, Daniel, "Civilianization and Authoritarian Nationalism in Brazil: Ideological Opposition Within a Military Dictatorship," Journal of Political and Military Sociology. Vol. 14, No. 2 (Fall 1986) pp. 263-276.

BIOGRAPHY

The author was born David Michael Baird, in Detroit, Michigan, on November 15, 1955. He moved to New Orleans in 1966. He attended the University of New Orleans, and earned a B.A. in Philosophy in December 1976. He married Sandy Elaine (later Shira Ilana) Schwam in March of 1977, and then moved to Israel in September, eventually settling on Kibbutz Harel. Having dual citizenship (U.S.-Israeli) he served in the Israeli army for 18 months, doing unclassified research on international events related to Middle Eastern politics. He also served as general-secretary of Kibbutz Harel for one year, and was active in political movements. His son, Micha'el (Mikush) was born in Jerusalem in 1981. The family returned to the United States in 1983. He entered Public Administration program at the University of New Orleans in 1985, earning a Masters in Public Administration by December, 1987. He then entered the graduate program in Political Science at Tulane University in January 1988, graduating with his Ph.D. in May 1993.