Arms Transfers to Latin America: Toward A Policy of Mutual Respect
Luigi Einaudi, Hans Heymann, Jr, David Ronfeldt and Cesar Sereseres

A Report prepared for
DEPARTMENT OF STATE
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PREFACE

This study explores factors affecting U.S. arms supply to Latin America. In doing so, we are fully aware of the difficulty of the task. The subject has so complicated and so uncertain a data base and is so multiple in its ramifications that, amoebalike, it seems to divide and change shape at every approach. And arms policies, like military activities more generally, are controversial. In the Latin American case, not only are they shrouded in mythologies and taboos; they have also produced public debate in the United States and absorbed large amounts of scarce executive time and energy as U.S. policymakers have sought to reconcile contradictory pressures. Yet, as our study concludes, many of the issues and rewards involved are relatively minor at this point, at least for the United States.

We have been moved to undertake this analysis, however, under contract to the Office of External Research, Department of State, because of this very discrepancy between the heat generated by arms transfer questions and their relative unimportance. For if the Latin American arms market is relatively miniscule, if arms bear little relationship to the course of governments and economies, then the controversies aroused by such issues have indeed been out of all proportion. Lack of perspective, we feel, has unnecessarily contributed (unfortunately not in a trivial fashion) to the deterioration that has marked U.S.-Latin American relations over the past decade.

U.S. arms policies have been criticized as being both too restrictive and too permissive. Some of the criticisms rest on irrecconcilable conflicts of political values and philosophies. But some rest on misconceptions and lack of information. By seeking to present a broad analysis in unclassified form, we hope to contribute to renewed public debate from which may evolve greater understanding and improved opportunities for cooperative and constructive inter-American relations.

It is therefore our belief that this synthesis of some of the many factors involved will be useful to policymakers and concerned citizens alike, and that it will be of interest to students of international relations as well as to analysts of military affairs and Latin America.

An earlier study for the Department of State, Luigi R. Einaudi, ed., Latin America in the 1970s, The Rand Corporation, R-1067-DOS, Santa Monica, California, December 1972, sets forth some of the major directions of Latin American development as a whole, and underscores the processes of Latin American growth and institutional development that require a continuing search for improved relations based on mutual respect.
Research for this study was conducted during 1972 and 1973, the data reflecting events up to April 1973. Luigi Einaudi and David Ronfeldt are political scientists in The Rand Corporation's Social Science Department at Santa Monica, while Hans Heymann, Jr. is an economist with The Rand Corporation at Washington, D.C.; Cesar Sereseres is a political scientist at the University of California, Irvine, and consultant to The Rand Corporation.
SUMMARY

The countries of Latin America have traditionally depended upon the industrialized foreign powers for their supply of weapons. Until World War II arms were obtained primarily from diverse European sources. During and after the war many countries continued to acquire European (primarily British) fighter aircraft and warships, but the United States became the predominant supplier of most types of military equipment. Sales were not, however, the driving force behind this development: U.S. government grants and credit terms facilitated the transfer of numerous items, many reconditioned, from U.S. service inventories; and U.S. doctrine, training, and advice gained strong influence throughout the Latin American militaries.

By the late 1960s, however, a sharp shift began to occur. Undertaking previously deferred modernization programs, virtually all countries that purchased arms turned toward European suppliers, frequently for high performance equipment. The “Big Six” of South America (Argentina, Brazil, Chile, Colombia, Peru, and Venezuela), which together accounted for 95 percent of the value of all orders placed abroad, contracted to spend about five times more on European than on U.S. equipment during the period from 1968 to 1972. Meanwhile, although the United States continued to supply surplus equipment and spares at relatively low prices, relations with the United States deteriorated, and U.S. arms transfer policies aroused heavy criticism in Latin America for being restrictive, just as they were being criticized in the United States for being indiscriminate.

This report documents recent changes in arms transfer patterns; explores the political, economic, and military forces of international supply and Latin American demand that bear on U.S. competitiveness; focuses on the relationship between arms transfers and U.S. interests; and suggests some possible guidelines for future arms transfers in the changing international environment.

After a period of “deferred modernization” in the mid-1960s, Latin American demand for arms peaked with a succession of orders from 1968 to 1972, the dollar volume of which was inflated by the purchase of some costly new aircraft and ships, mainly from France and Britain. Future demand seems likely to subside to more modest levels, but procurement of “intermediate” modern weapons, including light and medium transport planes, tactical jet fighters and trainers, light armor, and coastal defense vessels, will continue. Current redefinition of military security doctrines toward territorial defense and national development seems likely to increase interest in developing local production capacities and to reinforce the focus on intermediate weapons.
Certain major factors presently shape the demand for weapons among the Latin American militaries:

- the generational obsolescence or aging of local inventories;
- strong budgetary constraints on arms expenditures;
- traditional and newer military doctrine requirements for both external and internal defense missions;
- the military quest for institutional dignity through modernity despite technical and managerial obstacles;
- the drive for independent and flexible foreign policies toward neighboring countries and foreign powers in the emerging multipolar environment;
- the possibilities for indigenous production in at least two countries, Argentina and Brazil.

Other demand factors seem to be less important than is sometimes thought to be the case. Selective efforts at regional balancing have some influence on arms demands among neighbors, but no arms races exist today or seem likely to exist in the future. Indeed, in comparison to other areas of the world, the Latin American militaries spend little on arms acquisitions, and are relatively small in size and force posture. Moreover, military spending does not appear to be a significant "resource diversion" from economic growth, nor does military participation in politics have regular effects on demand patterns.

As for the supply of weapons, governmental and industrial policies have greatly enhanced the attractiveness of the principal European alternatives (France, Germany, and Great Britain) over the United States. On the one hand, the United States has designed and developed costly weapons essentially for use by its own sophisticated forces in strategic environments, with virtually no export potential, or with export potential as a side consideration. On a worldwide scale, however, the Foreign Military Sales (FMS) program provides an effective mechanism for the sale and support of weapons abroad on internationally competitive credit terms. But, in addition to questions of design suitability, the application of FMS to Latin America has been severely limited by U.S. adoption of highly politicized policies toward Latin America that seek simultaneously to restrict transfers of sophisticated arms, and to promote dependence on U.S. sources and doctrines. Congressional legislation and Defense and State Department directives have endeavored to restrict acquisitions of advanced weapons that could interfere with economic and political development, while the Military Assistance Program (MAP) has promoted some arms transfers that seek to guide Latin American militaries into becoming moderately armed internal-security forces.

On the other hand, European governments and industries have worked together to design armaments that are suitable not only for their own militaries, but also for those of the less developed countries and that thus have high export potential. In addition, the major European suppliers have followed commercialized, highly competitive, arms transfer policies. European governmental and business agents have undertaken vigorous joint sales efforts, in some cases entering into local licensing and co-production arrangements and providing balance-of-payment offsets. In the future, the Soviet Union will provide Latin American governments and militaries an additional alternative to dealing with the United States, probably by offering
concessionary terms and possibly by utilizing Cuba to demonstrate equipment, and as a supply depot for maintenance.

These different U.S. and European approaches have contributed decisively to Latin American procurement of modern weapons from Europe. Nonetheless, the major costs of present U.S. policies are not economic. Arms transfers to Latin America involve relatively small sums of money, if measured in terms of the value of the world arms trade, U.S. arms exports, or overall U.S. balance-of-payment considerations. Furthermore, even aggressive U.S. salesmanship would capture only a portion of the weapons deals currently being negotiated with European suppliers because of the Latin American demand for weapons unavailable from the United States (e.g., new conventional submarines and turbine-driven destroyers, or new light tanks).

The most serious costs of recent U.S. policies have been political. Restrictive U.S. attitudes toward arms transfers have contributed to the deterioration of U.S.-Latin American military relations during the past decade and have stimulated the rise of political nationalism and the resentment of U.S. paternalism and indifference. Contradicting the spirit if not the letter of the 1947 Rio Pact and the Mutual Defense Treaties of the 1950s, U.S. lack of response in military matters has adversely affected Latin American judgments about U.S. responsiveness in other matters, particularly where these judgments are made by governments headed by military men who have had counterproductive encounters with the United States over arms sales.

A U.S. turn to promotional arms transfer policies, however, could turn out to be just as counterproductive. While not reaping significant economic rewards, aggressive salesmanship would probably arouse antipathy throughout Latin America as well as exacerbate regional rivalries and national disequilibriums, at high political cost to the United States. The issue is not to encourage Latin American governments to arm themselves, nor to "buy American" without regard to cost or design factors, but to enable Latin America to acquire U.S. equipment when appropriate.

Against this background, and especially in light of present modest levels of demand, therefore, the principle of unrestricted but also unsubsidized military sales might provide an acceptable moderate basis for an alternative policy on arms transfers to Latin America. Essentially, such a policy might contain these three steps:

- the elimination of grant materiel assistance to those few countries still receiving it;
- the termination of legislative and other restrictions aimed specifically at Latin America;
- the provision of sufficient government credit through the Foreign Military Sales system to facilitate the competitiveness of U.S. equipment in the Latin American market.

Together these steps would serve to diminish both the restrictive and promotional roles of current policies, and to enhance U.S. capacity to meet Latin American demands on a basis commensurate with international competition. Most significantly, these steps would better serve U.S. interests in developing mutually respectful and cooperative relations with the Latin American countries.
ACKNOWLEDGMENTS

Though they alone bear responsibility for the contents and any errors contained in this report, the authors wish to acknowledge the help and encouragement of the many U.S. and Latin American government officials and military officers who assisted in the preparation of this study in its various stages. Officials of the Bureau of Intelligence and Research of the Department of State were particularly helpful, as were members of the Bureau of Inter-American Affairs and other Foreign Service Officers concerned with political-military affairs, security assistance, and policy planning and research. Officials of the Defense Security Assistance Agency, the Department of the Air Force, and the Office of the Assistant Secretary of Defense for International Security Affairs also provided useful criticisms, as did members of the U.S. Southern Command (SOUTHCOM).

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I. INTRODUCTION: THE TROUBLED HISTORY

Latin America depends on the industrialized world for most of its weapons. International supply therefore significantly affects the specific types and sources of arms obtained. The historical evolution of Latin American acquisitions reveals considerable sensitivity to changes in the availability of weapons, and suggests that today's changing world-production and supply patterns are a major factor in emerging acquisition patterns. What are the consequences of these changes for the United States. Can and should anything be done?

In this study the authors propose to examine factors affecting U.S. arms transfer policies toward Latin America and to relate them to the improvement of U.S.-Latin American relations during the 1970s. The countries that receive most attention, and those to which the analysis mainly applies, are the “Big Six” of South America: Argentina, Brazil, Chile, Colombia, Peru, and Venezuela.

The study first describes recent patterns of arms transfers, and then explores political, economic, and military factors of international supply and local demand that shape them. Finally, the authors focus on policy alternatives and interests for the United States in Latin America in order to suggest constructive guidelines for future arms transfers.

Before World War II, Latin American armaments were highly diversified in type and make, but were largely of European manufacture, in part because of U.S. restrictions on the export of weapons and munitions. World War II altered the international environment and led the United States to seek military alliance with Latin America to foster hemispheric defense. The availability after the war of a wide range of surplus weaponry from the United States and Great Britain enabled many countries to update their military inventories at relatively low cost, using the substantial foreign exchange reserves they had accumulated during the war.

In addition, the U.S. government sought after World War II to maintain a predominant strategic position in the hemisphere, and instituted policies that gradually evolved into the Military Assistance Program (MAP). MAP aid to Latin America was small compared to other regions (from its formal inception, in FY 1952, through FY 1965, Latin America received $500 million, compared with $8.2 billion for Southeast Asia, and $17.4 billion for Europe). Yet the United States came to be seen as the predominant supplier of arms and training to Latin America, with World War II and Korean War stocks of materiel a source of inexpensive but reliable arms and other equipment. Occasional Latin American purchases of European combat equipment continued: Great Britain in particular made significant sales of military
jet aircraft and naval vessels throughout the late 1940s and 1950s. But the founding in 1942, under the Joint Chiefs of Staff, of the Inter-American Defense Board for military consultation, followed by the Rio Pact in 1947, led to an atmosphere of alliance, which was further strengthened by bilateral mutual defense pacts signed with most countries during the early 1950s. These pacts typically granted the United States a monopoly of military advisory missions, and thus symbolized de facto U.S. predominance. The emergence of the Soviet Union as arms provider to Cuba after the Bay of Pigs fiasco was the first significant challenge to what critics had by then come to call a new U.S. “imperial” order. In general, however, U.S. military predominance seemed to be securely established, until the surprising reversals of the mid-1960s revealed that position to be more subject to challenge than frequently believed.

Several elements were involved. From the beginning of MAP, the United States had tried to maintain some regional parity among governments and to keep the level of weapon sophistication very low, providing combat aircraft, ships, and tanks that were at best early-1950s, if not World War II vintage. There was in effect, a tacit, low-key U.S. policy of regional arms balancing and limitation. With the initiation of the “Decade of Development” at the beginning of the Kennedy era, U.S. dedication to the primacy of the economic development objective under the Alliance for Progress introduced a new concern over Latin American “resource diversion” from development to defense. MAP policies were thus generally reoriented toward support for internal security, and further downplayed external defense. Yet Latin American inventories of World War II weapons were simultaneously becoming increasingly obsolescent.

The underlying tension between declining U.S. responsiveness to requests for weapons for hemispheric defense and the growing obsolescence of major weapon systems held by Latin American countries was initially held in check by cost considerations and political uncertainties. In particular, Latin American leaders hoped that the United States could ultimately be maneuvered into sharing some of the escalating costs of modern weapons in the name of military alliance, international anticommunism, and the Rio Pact. But by the mid-1960s, any Latin American hopes that MAP and Foreign Military sales (FMS) would become a bargain-basement shortcut to military modernization were sharply disabused.

The issue was military fighter aircraft. Latin America's first-generation subsonic military jets were rapidly becoming more difficult and costly to maintain, as well as accident-prone, while the advanced military powers phased early models out of their own inventories. Many countries apparently favored the F-5 Freedom Fighter as the replacement for their obsolete tactical fighter squadrons. A light jet fighter that could break the sound barrier only if carrying minimal armament, the F-5 was developed, partially with MAP funds, by the Northrop Corporation especially for the less developed countries. But attempts to purchase the Freedom Fighter revealed the U.S. capacity to support such acquisition to be limited by both economic and political considerations. More was involved this time than the general tradition of self-imposed restraint and arms limitation toward Latin America. Though the F-5 was but marginally supersonic, U.S. critics saw it as a prime example of wasteful military expenditures for unnecessarily sophisticated equipment at a time when generous U.S. credits were being extended for economic development. In addition, in 1966 it was revealed that foreign countries with severe debt-service problems
were receiving large U.S. credits for arms purchases under the "Country-X" revolving loan feature of the Military Assistance Credit Account linked to the Export-Import (Ex-Im) Bank. Although this revelation only marginally involved Latin American countries, it aroused fierce congressional reaction that contributed ultimately to substantial restrictions on the amount and ease of credit available to Latin America for military imports.

When key Latin American countries turned to Western Europe for purchases of weapons denied them in the United States, U.S. reaction had profound consequences for economic as well as military assistance policies, and almost brought about congressional rejection of the 1967 Foreign Assistance Act. The train of events was set in motion by the sale of 50 subsonic A-4B Skyhawk light attack bombers to Argentina in October 1965. Chile then sought to purchase the F-5 Freedom Fighter. The United States government, however, was determined to delay the crossing of the supersonic threshold, and informed Latin American governments that the F-5 would not be released to them until 1969. The United States offered instead to sell Chile the A-4B Skyhawk or the F-86 Sabre. Venezuela tacitly accepted the limits set in Washington and bought 74 surplus German-built F-86 Sabres. The angry Chileans purchased subsonic fighters, but they also turned to England for the FGA-9 Hawker Hunter, after abortive consideration of the more costly supersonic British-made Lightning. The sale of 21 Hunters was consummated in 1966. Although the United States could not object, the readiness of a Latin American country under progressive civilian rule to turn to Europe after being refused a U.S. sale was a portent of things to come.

The modernization of Peru's air force brought the clash with U.S. policy into the open. In harmony with enunciated policy on the F-5 but also in the shadow of Peru's economic troubles and of the controversy over the status of the International Petroleum Company, the United States only offered to sell Peru additional F-86s, despite repeated Peruvian expressions of interest in the F-5. Peru then turned to Britain for Canberra bombers (the sale of which was initially blocked by the United States, but finally consummated in 1968), and to France for the faster and more expensive Mach 2 Mirage 5, thus breaching the supersonic barrier in Latin America for the first time.

The U.S. reaction to the breaking of its arms control policy went from exhortation and threats to a reduction of economic assistance to Peru, and finally to a succession of congressional reductions and restrictions on military assistance and sales to Latin America. But the U.S. capability to control Latin American acquisitions was sharply limited by the presence of alternative suppliers from Western Europe, many of whom were riding a crest of European economic recovery and aggressive governmental support. More interested in fostering economic development than in being the exclusive arms supplier, U.S. policy had simply collided with the aspirations and sensitivities of increasingly independent Latin American governments which had more options available to them than those presented by the United States. Argentina, Brazil, Colombia, and Venezuela have since joined Peru in acquiring a squadron of Mirages, at a total cost for the five countries approaching

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2 They had similarly turned to Europe in the 1960s for combat aircraft and ships when the United States refused to supply them, but with smaller total outlays and less U.S. reaction than in the 1960s.
one quarter of a billion dollars. As documented in Sec. II, furthermore, the relative importance of non-U.S. suppliers grew in other areas as well.

Events since 1967 have thus led to a major increase of Western Europe’s role in the Latin American arms market. The future may bring the entry of Japanese, Soviet-bloc, and even Chinese military suppliers. With a secure weapon demonstration and supply facility in Cuba, the Soviet Union may offer arms on concessionary terms in an attempt to increase its presence in an area from which it has been largely excluded in the past.

The question of whether and how the United States might adjust its policies and maintain a position as an arms supplier in this changing environment is complicated by the fact that few subjects in the sphere of national security and international relations have become so encrusted with myths and contradictory half-truths as has the transfer of arms from supplier to recipient countries in Latin America. Myths and half-truths are subscribed to both by those who seek to restrict or arrest the arms flow, and by those who seek to promote it.

The restrictionists have variously asserted:

- that armaments provoke military coups and wars (availability induces use);
- that the flow of armaments to Latin America has been growing at an alarming rate, and has created an “arms race” atmosphere;
- that Latin American governments are spending “excessively” or “disproportionately” on defense;
- that they are too irresponsible or incompetent to determine their own national security needs and procurement policies;
- that the United States is more competent to understand these needs and can (and should) dictate these policies or restrain these “excesses;” and
- that the United States so dominates the world arms trade that its unilateral actions will have the desired effect.

Almost as egregious are the myths and half-truths held by the promotionalists:

- that the provision of American weapons and equipment to Latin America automatically assures U.S. influence;
- that standardization and an exclusive supplier relationship contributes to the “common (regional) defense” while simultaneously acting as a conflict control mechanism;
- that U.S. arms transfers are essential to hold down communist insurgency;
- that arms exports to Latin America add up to a significant element in the U.S. balance of payments and should be vigorously encouraged on that basis alone;
- that arms exports to Latin America permit significantly larger production runs for U.S. manufacturers, thus making possible lower unit costs and significant savings to the U.S. defense budget; and
- that Latin American militaries will buy weapons regardless of U.S. policies, so they might as well buy from the United States.

These assertions, of course, represent extreme formulations drawn from among widely-held beliefs about the roles of arms and arms transfers in U.S. foreign policy
and international affairs. The individual arguments can be more persuasively put and will be examined in greater detail below. This study challenges many of these myths and half-truths, advancing substantially different propositions and principles. The variety and conflicting nature of the propositions as stated here, however, give the reader some idea of the controversy and confusion surrounding the topic, and suggest that the authors are aware of the pitfalls attendant upon seeking to deal with it. Above all else, the authors hope to make it clear that the problems associated with current arms transfer policies, their costs to the United States, and the major benefits to be gained from appropriate changes are much more political than economic or military in nature.
II. THE PATTERN OF RECENT ARMS TRANSFERS

What are recent patterns of arms transfers to Latin America? The inventories of Latin American military forces have always been extremely varied as to both source and type. Operating within stringent technological as well as budgetary constraints, Latin American military forces have frequently employed reconditioned and rehabilitated equipment, maintained major items over long periods of time, and have often modified equipment to serve multiple purposes. While pre-World War I European artillery, rifles, and even gunboats remain in service in several countries, some Latin American countries now manufacture part of their own small arms, ammunition, vehicles, and small naval craft. As early as the 1930s Brazil and Argentina began to build destroyers and corvettes; they are currently developing their own small tactical, utility, and light transport planes and armored weapons, as well as assembling jet fighters.

THE MAJOR TREND

These localisms plus generalized policies of secrecy make Latin American military inventories difficult to describe, let alone assess. One regional generalization, however, can be made: recent acquisition patterns in all major countries and for virtually all categories of military equipment have been away from secondhand equipment, chiefly of U.S. origin, in favor of new equipment, most of it manufactured in Europe. As Latin American armed forces sought to offset the increasing obsolescence and costliness of their World War II and Korean War-vintage equipment, and as restrictionist legislation and low priorities limited U.S. responsiveness to Latin America, the proportion of new construction armaments purchased on the international market, mainly from Europe, grew markedly.

Table 1 summarizes this gross trend for the Latin American region by category of equipment. Tables 2 and 3 provide a breakdown by country and type of equipment of the overall dollar value of purchase orders for both new and used military equipment that have been placed in the United States, Europe, and Canada during the past 5 years. Table 4 lists countries receiving major orders for new equipment only during the same time period. Table 5 covers a 10-year time span for the United States, and adds the value of MAP materiel grants (which ended for the major countries after FY 1968) to the Foreign Military Sales figures. This last table empha-
sizes the extent of Latin America's recent purchases from Europe: In the last 5 years alone, the dollar value of Latin America's purchases from Europe was nearly double that for all U.S. government military transfers to the area over the 10 years, including materiel grants and excess stocks, as well as cash and credit sales of equipment, spare parts, services, etc.

In addition to showing heavy arms transfers from Europe, Table 2 also reveals that 6 countries (Brazil, Argentina, Venezuela, Peru, Chile, and Columbia) together accounted for about 95 percent of the value of all military orders placed abroad during the 1968-1972 period. Of the remaining countries, only Ecuador and Guatemala made purchases in excess of $10 million during those same 5 years. Mexico spent very little on arms from 1968 to 1972. Five countries (Costa Rica, the Dominican Republic, Haiti, Jamaica, and Nicaragua) bought no aircraft, ships, or armored equipment at all. Table 3 also shows that more than 80 percent of the dollar value of the purchase orders went for aircraft and ships, reflecting the high relative cost of the Latin American Big Six purchases of Mirage fighters and British warships. Conversely, about 60 percent of U.S. FMS volume went for parts, services, and rehabilitation costs, rather than end-items.

The dollar amounts of recent arms orders are thus concentrated by country and by category. Nonetheless, the general patterns in favor of third-country suppliers of new equipment hold across virtually all the larger Latin American countries and all equipment categories. Despite continued U.S. provision of surplus World War II naval vessels and sales of armored personnel carriers and aircraft, mostly noncombat, major European or Canadian sales have been recorded in air transports, tanks, trucks, and communications equipment as well as in jet fighters and warships. The discussion of inventories that follows provides additional details.

THE INVENTORIES

This review of inventories is organized by major categories of equipment as of 1972; it emphasizes recent trends in acquisition patterns.

Military Aircraft

**Bombers.** Only four countries own bombers of post-World War II vintage. All are British-built Canberras, about 50 of which are in the inventories of Argentina, Peru, Ecuador, and Venezuela. The Canberra (the U.S. version is the Martin B-57) is a medium-range, straight-wing, twin-jet bomber developed more than 25 years ago, and carrying a long history of service in British Commonwealth air forces. The other 6 countries with planes classified as bombers are flying truly antiquated U.S. B-25s and B-26s, which are used primarily for training, liaison, and transport purposes. Only Argentina and Peru have purchased bombers and Canberras in the past 5 years.

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3 Of course, these 6 nations also comprise more than 60 percent of the population and gross national product (GNP) of the Latin American region, as well as 85 percent of defense appropriations; accordingly, their share of arms purchases is not disproportionate.

4 See Table 1 sources, pp.8-9.
Table 1
MAJOR SOURCES OF MILITARY EQUIPMENT IN LATIN AMERICA

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Inventories in Early 1960s</th>
<th>Major Acquisitions Since Then</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aircraft</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bombers and advanced fighters</td>
<td>United States, United Kingdom</td>
<td>New: France, United Kingdom, Canada</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Old: United States, United Kingdom</td>
</tr>
<tr>
<td>Trainers and ground support fighters</td>
<td>United States</td>
<td>New: Italy, United States</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Old: United States</td>
</tr>
<tr>
<td>Transport and utility craft</td>
<td>United States</td>
<td>New: Canada, United States, United Kingdom, The Netherlands</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ships</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submarines</td>
<td>United States</td>
<td>New: W. Germany, United Kingdom</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Old: United States</td>
</tr>
<tr>
<td>Warships</td>
<td>United States, United Kingdom, Sweden, Italy</td>
<td>New: United Kingdom</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Old: United States, United Kingdom, Sweden, The Netherlands</td>
</tr>
<tr>
<td>Coastal patrol craft</td>
<td>Many suppliers</td>
<td>Many suppliers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Land Equipment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tanks</td>
<td>United States, France</td>
<td>New: France</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Old: United States</td>
</tr>
<tr>
<td>Armored vehicles</td>
<td>United States</td>
<td>Several suppliers</td>
</tr>
<tr>
<td>Guns</td>
<td>Many suppliers</td>
<td>Many suppliers</td>
</tr>
<tr>
<td>Motor transport and support equipment</td>
<td>United States</td>
<td>Many suppliers</td>
</tr>
<tr>
<td>Rockets and missiles</td>
<td>United Kingdom</td>
<td>United Kingdom, France, W. Germany, Australia</td>
</tr>
</tbody>
</table>

SOURCES: The various facts and figures employed in this study reflect a variety of materials on recent procurements and inventories. Unfortunately, we found no single source to be entirely accurate. The precautions taken by most countries to conceal the specifics of their defense postures make detailed data virtually impossible to obtain. The use of rumor as a bargaining device produces many false leads. The actual terms of financial transactions are also difficult to determine, even if the few cases in which substantial information is available. In addition, differences between orders and actual deliveries, as well as subsequent attrition
rates and patterns of utilization, create discrepancies beyond the capacity of the outside observer to resolve with full confidence. By crosschecking sources, however, we have arrived at compilations we believe accurately approximate the orders of magnitude involved, especially for the major end-items that are our principal concern.

Current inventory data reflecting the operational condition of equipment is the most difficult to obtain. A reasonable recent summary of major types and quantities of equipment was published by AIR FORCE Magazine for December 1972. Section XI of the supplement "The Military Balance, 1972/73" is devoted to the individual countries of Latin America. Additional information on weapons developments is available in trade journals, such as the International Defense Review (London, published 6 times a year), and Aviation Week and Space Technology (published weekly by McGraw-Hill). The latter published a particularly useful Inventory and Forecast issue on internationally available aerospace weapons; see Vol. 98, No. 12, March 19, 1973. In addition to documents and studies cited elsewhere in this report, reliable data on the specifications of individual aircraft and ships may be obtained from Jane's All the World's Aircraft, 1971-1972, ed. John W. R. Taylor, Jane's Yearbooks, London, 1971; and Jane's Fighting Ships, 1972-1973, ed. Raymond V. B. Blackman, Jane's Yearbooks, London, 1972.


Finally, the Departments of State and Defense (DoS, DoD), the Agency for International Development (AID), and the Arms Control and Disarmament Agency (ACDA) all publish unclassified reports useful to this study, including the annual World Military Expenditures (ACDA) and Military Assistance and Foreign Military Sales Parts (DoD).

COMMENT: This table indicates major sources. The only category in the early 1960s in which the United States was an exclusive supplier was submarines. See the text for further discussion by category of equipment.

Note also that the recent acquisition patterns resemble, allowing for the greater extent of European resurgence and changes in technology, those before the Military Assistance Program was instituted.
Table 2
ESTIMATED VALUES OF LATIN AMERICAN MILITARY PURCHASE ORDERS,
FY 1968–FY 1972
($ million)

<table>
<thead>
<tr>
<th>Latin American Country</th>
<th>FMS a</th>
<th>Third Country b</th>
<th>Total</th>
<th>Percentage of Regional Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>68</td>
<td>222</td>
<td>290</td>
<td>18</td>
</tr>
<tr>
<td>Brazil</td>
<td>75</td>
<td>499</td>
<td>574</td>
<td>36</td>
</tr>
<tr>
<td>Chile</td>
<td>31</td>
<td>145</td>
<td>176</td>
<td>11</td>
</tr>
<tr>
<td>Colombia</td>
<td>7</td>
<td>85</td>
<td>92</td>
<td>6</td>
</tr>
<tr>
<td>Ecuador</td>
<td>2</td>
<td>19</td>
<td>21</td>
<td>1</td>
</tr>
<tr>
<td>Guatemala</td>
<td>12</td>
<td>1</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Peru</td>
<td>7</td>
<td>184</td>
<td>191</td>
<td>12</td>
</tr>
<tr>
<td>Venezuela</td>
<td>52</td>
<td>148</td>
<td>200</td>
<td>13</td>
</tr>
<tr>
<td>Other countries c</td>
<td>7</td>
<td>17</td>
<td>24</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>261</td>
<td>1320</td>
<td>1581</td>
<td>100</td>
</tr>
</tbody>
</table>

NOTES: "Purchase orders" here refer to orders rather than deliveries; i.e., the total value of purchase agreements in the year signed, not the value of end-items actually delivered. Hence, because of the discontinuous nature of military procurements, some major purchase orders (such as Brazil's recent purchase order for 6 British new-construction destroyers to be delivered over several years) may inflate the volume for short time periods. As indicated by the sources in Table 1 (see Sources, pp. 8-9), we have on occasion been forced to compile our own estimates from a variety of sources. The "Third Country" column represents an informed "best guess" based on compilations of individual purchases as identified through the SIPRI listings, trade journals, and newspaper and other accounts. We estimate that the global figures presented here are no more than 20 percent off for any one country, and that, if anything, they tend to be conservative, as available third-country sales reports probably omit many small acquisitions, as well as many of the services and follow-on support costs that account for as much as 60 percent of the FMS total.

Two arms transfers are excluded here: (1) U.S. grant materiel assistance and excess stocks under MAP which, in this time period, totaled $55 million, chiefly to the countries in the "all other" category (see Table 5); and (2) U.S. commercial sales (consisting primarily of commercial equipment adaptable to military use and spares for obsolescent equipment no longer in U.S. military inventories). Together, these categories probably approximated the total value of FMS purchases.

aForeign Military Sales includes both credit and cash sales.
bEurope and Canada.
cIncludes Bolivia, Costa Rica, the Dominican Republic, El Salvador, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Trinidad, and Tobago and Uruguay; excludes Cuba.
Although there has been a gradual replacement of worn-out American Mitchells and B-26s by the almost obsolescent British Canberras, to the extent that any trend is discernible in the bomber inventories of Latin America, it is one of general disinterest.

Jet Fighter-Interceptor Aircraft. Aside from Cuba, which alone has between 150 and 200 Soviet jets (including more than 50 supersonic MIG-21s), 9 Latin American countries had approximately 200 jet fighters in their inventories as of early 1972. Of these, about two-thirds were of U.S. origin. But of all these American aircraft, only Argentina's reconditioned A-4Bs and Guatemala's new A-37Bs were "modern." Almost half were aging F-86s held by the air forces of Argentina, Peru, Venezuela, and Honduras, and even older F-80s in the Chilean air force. According to some indications, many of these U.S. F-86s and F-80s were inoperative, and those that did fly were frequently dangerous.

Great Britain, which was the only supplier of early jets to Latin America in the first decade after World War II, still accounted for some 50 fighters in early 1972. Of these, almost half were Meteors, Vampires, and Venoms, aging but still held by Brazil, Venezuela, Ecuador, and Peru. In addition, Chile had 2 squadrons of more modern FGA-9 Hawker Hunters and Peru a few somewhat older F-4 Hunters. The remaining jet fighters in Latin American inventories in 1972 were Peru's 14 French Mach-2 Mirage-5s and a few Canadian CF-5s in Venezuela.

Excepting Venezuela's purchase of the Canadian-built CF-5 Freedom Fighter, Argentina's purchase of rehabilitated A-4B Skyhawks, and Guatemala's acquisition of Cessna A-37B light-attack aircraft from the United States, the major trend of the past 5 years has been the acquisition of Mach-2 French fighters in the Mirage III and 5 series by Argentina, Brazil, Colombia, Peru, and Venezuela. The integration of these newly purchased fighters into Latin American inventories will produce a clear predominance of the Mirage series as both the fastest and the most numerous mainline fighter in Latin America. Discounting the increasingly obsolescent F-86s, F-80, Meteors, Vampires, and Venoms, the modern jet-fighter inventories held by
<table>
<thead>
<tr>
<th>Purchasing Country</th>
<th>Aircraft</th>
<th>Ships</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Argentina</strong></td>
<td>France</td>
<td>United States</td>
</tr>
<tr>
<td></td>
<td>Italy</td>
<td>The Netherlands</td>
</tr>
<tr>
<td></td>
<td></td>
<td>United States</td>
</tr>
<tr>
<td><strong>Brazil</strong></td>
<td>France</td>
<td>United States</td>
</tr>
<tr>
<td></td>
<td>Italy</td>
<td>United States</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brazil</td>
</tr>
<tr>
<td><strong>Chile</strong></td>
<td>United Kingdom</td>
<td>United States</td>
</tr>
<tr>
<td></td>
<td></td>
<td>United States</td>
</tr>
<tr>
<td><strong>Colombia</strong></td>
<td>France</td>
<td>United States</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Netherlands</td>
</tr>
<tr>
<td><strong>Ecuador</strong></td>
<td>None</td>
<td>United States</td>
</tr>
<tr>
<td><strong>Guatemala</strong></td>
<td>United States</td>
<td>United States</td>
</tr>
<tr>
<td><strong>Peru</strong></td>
<td>France</td>
<td>United States</td>
</tr>
<tr>
<td></td>
<td>Canada</td>
<td>United States</td>
</tr>
<tr>
<td><strong>Venezuela</strong></td>
<td>France</td>
<td>United States</td>
</tr>
<tr>
<td></td>
<td>Canada</td>
<td>United States</td>
</tr>
</tbody>
</table>

**NOTE:**
- "Purchase orders" refer to orders rather than deliveries, and include parts, services, rehabilitation costs, etc.; see Table 2 note.
- Purchasing countries are listed in the approximate order of importance.
- Partially assembled by purchaser.
Table 5

U.S. ARMS TRANSFERS TO LATIN AMERICAN COUNTRIES UNDER MILITARY ASSISTANCE PROGRAM (MAP) AND FOREIGN MILITARY SALES (FMS)

($ million)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grants</td>
<td>Sales</td>
<td>Total</td>
</tr>
<tr>
<td>Argentina</td>
<td>33</td>
<td>27</td>
<td>60</td>
</tr>
<tr>
<td>Brazil</td>
<td>53</td>
<td>57</td>
<td>110</td>
</tr>
<tr>
<td>Chile</td>
<td>35</td>
<td>8</td>
<td>43</td>
</tr>
<tr>
<td>Colombia</td>
<td>43</td>
<td>1</td>
<td>44</td>
</tr>
<tr>
<td>Ecuador</td>
<td>14</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Guatemala</td>
<td>8</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>Peru</td>
<td>39</td>
<td>49</td>
<td>88</td>
</tr>
<tr>
<td>Venezuela</td>
<td>(a)</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>All other</td>
<td>44</td>
<td>47</td>
<td>91</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>269</td>
<td>152</td>
<td>421</td>
</tr>
</tbody>
</table>

NOTE: Grants include both MAP materiel amounts programmed and excess stocks. Sales include both FMS cash and credit sales and, as in previous tables, reflect orders rather than deliveries, and include parts, services, rehabilitation costs, etc.

*Indicates less than $500,000.
the major Latin American air forces, once deliveries of outstanding orders are completed, will include about 70 U.S.-built A-4Bs and A-37Bs, some 30 British Hawker Hunters, 20 Canadian CF-5s, and about 80 French Mirages.

Future demand is not clear. Ecuador is the only country of the 8 major purchasers that does not have a squadron of modern fighter planes; it is therefore considering a purchase, particularly now that oil revenues promise to ease its foreign exchange shortage somewhat. Brazil has a squadron of Mirage III fighters on order, but only a few old Gloster Meteor F-8s otherwise, and is reportedly considering the local assembly of the Italian Fiat-G-91Y, the Northrop F-5E, or the Mirage III or 5 series. Chile also appears interested in purchasing a squadron of tactical fighters.

By the mid-to late 1970s, therefore, several countries may each seek a squadron or more of fighter aircraft, though in general high performance fighters will probably not be bought in large quantities. Given the high cost of new fighter-interceptor aircraft, and the absence of necessary associated ground-support and electronics, some countries may simply scrap their obsolescent squadrons and concentrate instead on dual-purpose trainer and ground-attack fighters as discussed in the next section.

Among the multi-purpose jet fighters, the U.S.-built Northrop F-5A is clearly outdated, apparently losing its chance because of restrictions in the mid-1960s, but it has been succeeded by a more recent version, the F-5E. If the F-5E is not considered satisfactory, and if the renowned U.S. F-4 Phantom fighter or the newly developed Anglo-French Jaguar strike fighter remain unavailable or excessively costly, the Mirage F-1 may continue the success of the earlier Mirage series. On the other hand, maintenance and support problems with current Mirage acquisitions may discourage future purchases of this more advanced series. Should political uncertainties or credit restrictions continue to affect the availability of U.S. fighters, the Soviet MiG-21 could also become a candidate.

Jet Trainers and Ground-Attack Fighters. As might be expected from the standby military training function of the Latin American air forces, trainers substantially outnumber fighter aircraft. As of 1972, excluding Cuba, Latin American air forces had some 350 jet trainers, most of them armed for ground support-attack functions. Of these, the most important were the U.S. T-37 (about 100 in Brazil, Chile, Peru, and Colombia) and the older U.S. T-33 (nearly 150 in the inventories of eight countries).

As with fighter-interceptors, the trend of recent purchases is strongly away from the United States. Since Brazil last bought 25 T-37s in 1968, Latin American countries have bought U.S. advanced trainers in limited numbers. Meanwhile, the search for a relatively inexpensive subsonic dual-purpose trainer and ground-attack fighter seems to have favored the Italian Aermacchi MB-326G, which has also proved popular elsewhere in the less developed world. Twenty-four Aermacchis, 6 in a naval trainer version, have been sold to Argentina, and 112 are being assembled in Brazil by the EMBRAER aircraft factory as the Xavante TF-26 (EMBRAER expects to have completed the first 77 planes by the end of 1974). The Brazilian-assembled Xavante may have some export potential to the smaller Latin American countries, but faces competition from a variety of other light jet fighters and turboprop counterinsurgency aircraft, such as the British BAC-167 Strikemaster (a sale of 8 is currently under discussion in Ecuador), the more expensive U.S. A-37B and the OV-10A (16 of which were sold to Venezuela in 1972), the Spanish Saeta, or even the Argentine-built Pucara AX-2.
If these trends continue, the proportion of U.S. aircraft in the category of jet trainer/ground-attack fighter will decline within the next 18 to 24 months from two-thirds of current inventories to about one-half, with most of the U.S.-built aircraft being obsolescent.

Transport Aircraft. Transportation of both passengers and cargo is the major peacetime activity of a Latin American air force, and transport aircraft account for about one-third of the military aircraft expenditures by Latin America in the past 5 years. The transport aircraft acquisition pattern is remarkably similar to that in the combat aircraft field: U.S. equipment, long predominant in military transport services, faces growing competition from European and Canadian-built aircraft, especially in light cargo and short takeoff-and-landing (STOL) equipment.

Among the newer heavy and medium transport aircraft, the U.S. C-130 and the older DC-6 have competed successfully with British BAC-111s (the Brazilian Air Force has acquired 2) and the smaller Hawker Siddeley (Avro) 748 twin-engine transports (9 sold to Ecuador and Brazil), as well as with Dutch Fokker F-27 Friendships and F-28 Fellowships (14 sold to Argentina, Uruguay, and Colombia). Interestingly, military purchases of these British and Dutch medium airliners (each holds 40 passengers or more) seem to reflect commercial interests as well, since the commercial airlines of Argentina, Panama, Chile, Venezuela, Ecuador, Mexico, and Brazil use the Hawker Siddeley 748, while the F-27 is in commercial service in Ecuador, Venezuela, Bolivia, and Brazil.

The competitiveness of third-country equipment is most evident in the light transport field. The Douglas-built C-47, the military version of the old 1935 DC-3, was until recently the backbone of air transport in Latin America. But a used C-47 now costs $30,000, plus as much as $100,000 to overhaul. The increasing obsolescence of the C-47, together with the primitive conditions of many Latin American hinterland airports, has placed a premium on new light transports, particularly with STOL characteristics.\(^5\)

The only sale of new U.S. light transport aircraft to military forces in Latin America between 1968 and 1972 was the commercial sale of 9 Beechcraft 99A twin-engine turboprop passenger transports to the Chilean Air Force at a reported cost of some $7 million. Otherwise, new equipment orders from Latin America went to Canada (40 DHC-5 Buffalo twin turboprop, 40-passenger STOL transports to Brazil and Peru, and 22 DHC-6 Twin Otter 20-passenger light STOL transports to Argentina, Paraguay, and Peru), and to England (the Short Brothers Skyvan SC-7 20-passenger light STOL transport has been purchased by several countries).\(^6\)

In addition, Latin American-built transports seem on the verge of entering the field for the first time, though their export potential will still take some years to

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5 The emerging competitive potential of the Fokker series was amply demonstrated in 1970 and again in 1972 during tours of South America and the Caribbean by a Fokker F-28 demonstration aircraft. The sight of this all-jet medium transport on sand, grass, and clay runways in isolated provincial towns like Itabuna (Brazil), Tingo Maria (Peru), and Rioja (Argentina) previously served only by DC-3s, provided convincing evidence both of Latin America's continuing development, and of the European equipment's increasing suitability. For a technical description, see "Fokker F-28 Fellowship Capabilities on Unpaved Runways," Interavia, Vol. 27, October 1972, p. 1069. The Soviet YAK-40 has also been demonstrated in several countries, including Bolivia, Chile, Ecuador, and Peru. The United States has a suitable successor to the C-47 in the C-123 Provider, which is currently in use in Vietnam. Only a limited number of Providers were produced, however, and they are not available for purchase.

6 Interestingly, the DHC-5 was originally developed for use by the U.S. Army. Like the CF-5, it uses General Electric Company engines built in the United States.
develop. The Brazilian-built EMBRAER-110, a twin turboprop transport known also as the Bandeirante C-95, began production in 1972 with a firm order of 80 planes from the Brazilian Air Force. EMBRAER hopes to export the Bandeirante, and also has a 4-engine STOL medium transport under intensive development. The Brazilians, however, will meet competition from the Argentine IA-50 G-II Guarani twin turboprop light transport, currently in production at the Fábrica Militar de Aviones in Córdoba for the Argentine Air Force, as well as from the Canadians, Europeans, and Americans.

Utility Aircraft. The utility aircraft field, long dominated by the United States, is expanding rapidly and becoming increasingly competitive. Helicopters are a relatively new item in Latin America, and U.S. varieties still constitute the major component of local inventories. Yet, from the standpoint of recent purchases, French Alouette or Puma and British Westland Wessex helicopters have both made important inroads in military markets previously dominated by Bell, Hughes, and Sikorsky. Within the region, a government company is being established in Brazil for the production of helicopters in 1974 under Italian license. The Soviet Union granted 3 Mi-8 transport helicopters to Peru as part of its earthquake relief activities in 1970, and has since offered to sell additional craft on what appear to be concessional terms.

Cessna and Beechcraft, among other U.S. producers of utility aircraft, are still selling well. At the same time, however, Brazilian, Argentine, and even Mexican-built propeller utility planes and trainers are coming into increasing production. Brazilian-built Neiva Universal T-25 trainers numbering 150 have been ordered to replace the Dutch Fokker S11/S12 and U.S. T-6 Texans as the basic trainer for the Brazilian Air Force. Also, 40 Brazilian Neiva Regente L-42s are replacing the older Brazilian Neiva L-6 and the U.S. Cessna 0-1A for light liaison and observation duties with the Brazilian Air Force.

Warships

Only 8 countries, the South American "Big Six" (Argentina, Brazil, Chile, Colombia, Peru, and Venezuela), plus Ecuador and Mexico, maintain navies that have warships larger than coastal minesweepers and patrol vessels in their inventories. The first 3 countries named, the so-called ABC powers of another era, have long naval traditions and have acquired new-construction capital ships ever since the nineteenth century. The other countries maintain somewhat more modest navies whose inventories have increased gradually since World War II.

Other than some submarines acquired by Peru 20 years ago, the Latin Americans have not since World War II bought new-construction, principal combatant vessels from the United States. For principal as well as lesser vessels, the United Kingdom has been the most frequent source for new-construction equipment. Indeed, Latin America's naval forces have been strongly oriented toward British equipment and practices ever since Lord Cochrane took command of San Martin's navy during the struggles for independence. Since World War II, the United States has furnished a significant number of warships either under ship loan legislation or for purchase as surplus at a small part of the original cost. As a result of this U.S. activity, U.S.-built warships account for about half of Latin America's current inventories. But these vessels are universally old. All were completed in 1945 or earlier, and although some have been extensively refurbished, the fact that a 1945 vessel
does not look the same in 1970 as it did in 1960 helps explain why the tradition of going to Europe, and particularly to the United Kingdom, for modern warships, new and used, has acquired new vigor in recent years.

**Submarines.** This is the only military category which the United States has monopolized as supplier since World War II. (In 1939, before World War II, Brazil had acquired 3 submarines from Italy.) And that monopoly ended in 1972. Moreover, submarines are the only new-construction naval equipment, other than patrol boats, ever ordered by a Latin American country from the United States. In the mid-1950s Peru ordered 4 new submarines from the Electric Boat Division of General Dynamics in Groton, Connecticut. Including Peru’s 4 15-year-old submarines, Latin America had 12 submarines in inventory in early 1972, all of them built in the United States. Argentina, Brazil, Chile, Venezuela, and Mexico were operating U.S. submarines completed in 1945 and later discarded by the U.S. Navy.

This picture changed dramatically in mid-1972 with deliveries of new Oberon-class 1610-ton submarines from the United Kingdom for Brazil and Chile, which have bought 2 each. Underscoring the changed supply pattern, Argentina, Peru, and Colombia have each purchased 2 new 1000-ton submarines from the Federal Republic of Germany (FRG). The integration of these 10 new British and German submarines into Latin America’s inventories will produce a pattern similar to that of other categories of naval equipment: a mix between old U.S. and newer European ships.

**Aircraft Carriers.** Two countries, Argentina and Brazil, maintain aircraft carriers. Both are former British fleet units completed in 1945. Argentina’s carrier was acquired refurbished from The Netherlands in 1969 as a replacement for an earlier carrier, also British-built. Among other countries, only Chile and Peru have occasionally considered the purchase of an aircraft carrier, without ever actually doing so.

**Cruisers.** Four countries maintain 11 cruisers. Argentina, Brazil, and Chile each operate 2 secondhand pre-World War II U.S. cruisers, the newest of which was completed in 1939. Argentina also has another old cruiser, purchased new from the United Kingdom in 1936. Chile and Peru have both purchased rebuilt European cruisers. Peru obtained 2 from the United Kingdom in the mid-1950s (originally constructed in 1942–1943). Chile’s somewhat more modern cruisers are of the Swedish Tre Kronor class. The first was constructed originally in 1947, reconstructed in 1951–1952, and modernized in 1958; the second was constructed originally in 1957 and bought with an order for its modernization in 1971. It has yet to be delivered.

**Destroyers.** Latin America’s 8 naval powers had 35 destroyers in inventory in 1972, 18 of them former U.S. ships completed in 1943. Of the remaining 17, 10 were originally British, 5 were built in Brazil, and 2 in Sweden. With the exception of 2 British destroyers originally built in 1953–1954 and purchased and refitted by Peru in 1969, 15 of the 17 destroyers not built in the United States were originally acquired new. In addition, Argentina and Brazil have recently ordered a total of 8 new-construction guided-missile destroyers from the United Kingdom for delivery in the mid- to late 1970s. Also in 1970, Chile ordered 2 new-construction Leander class frigates, armed with Seacat missiles and carrying a light helicopter.

Looked at by region, Latin America’s destroyer inventories thus reflect the by-now-familiar combination of new-construction purchases in Europe, with rehabilitated U.S. World War-II vintage equipment constituting the secondary half of the inventory. Looked at by country, the destroyer inventories reveal a slow and
discontinuous pattern of naval modernization. Until it ordered the construction of 2 new Type-42 guided-missile destroyers of the Sheffield class from England in 1970, Argentina was operating 5 former U.S. Navy destroyers originally completed in 1943 and 3 even older destroyers bought new from the United Kingdom in 1937. When construction is completed, Brazil's 6 new Niteroi-class Mark 10 guided-missile destroyers will complement 6 old U.S. destroyers completed in 1943 and 5 new-construction destroyers built in Brazil between 1944 and 1950.

Brazil's order for new destroyers reflects two additional patterns of Latin American military procurement: the drive toward co-production or local assembly (particularly pronounced in Brazil and Argentina) and the mix in sources of armament. Two destroyers will be built at the naval dockyard in Brazil with materials and lead-yard services provided by Vosper Thornycroft, which is constructing the other four in England. Armament will include one British Westland WG.13 anti-submarine warfare (ASW) helicopter, French Exocet surface-to-surface missiles, Australian Ikarai anti-submarine missiles, British Mark-8 guns, and Swedish Bofors 375-mm twin-tube rocket launchers, as well as triple Mark-32 torpedo tubes.7

Among the remaining naval powers, Chile operates 4 destroyers, including 2 U.S. 1943 vessels and 2 more modern destroyers bought new in the United Kingdom in 1960. Colombia operates one 1943 U.S. destroyer and 2 vessels bought new from Sweden in 1958. Peru operates 2 U.S. 1943 destroyers in addition to the 2 British destroyers refurbished in 1969. Venezuela operates 3 destroyers purchased new from the United Kingdom in the mid-1950s, and has recently acquired a re-equipped U.S. 1943 destroyer.

**Smaller Warships.** Argentina, Brazil, Chile, Ecuador, Peru, and Venezuela operate a total of 38 smaller warships in the fast-frigate, destroyer-escort, and corvette classes. There are 16 vessels of U.S. origin, all built originally between 1942 and 1945 and transferred to Latin America as surplus or on ship loan. Otherwise, the pattern is slightly more varied. Argentina has 2 frigates built locally between 1950 and 1957 and 2 corvettes also completed in Argentine shipyards in 1946. Brazil operates 10 corvettes purchased from the Netherlands in 1955. Venezuela operates 6 fast frigates obtained new from Italy in 1956-1957.

**Minesweepers and Coastal Patrol Vessels.** As might be expected, alternative suppliers, including the West Germans and the French, combine with considerable local construction to supplement smaller naval craft obtained from the United States and the United Kingdom.

In 1967 Argentina bought 6 refurbished minesweepers of the ton class from the United Kingdom. In addition, Argentina operates 10 World War-II U.S. patrol vessels and 3 smaller craft built in Argentina, and has 2 large coastal patrol vessels under construction in Argentina. Brazil, which bought 3 new-construction minesweepers from West Germany in 1971, also operates 2 1943 U.S. minesweepers and 8 patrol vessels built in Brazil since 1970. Chile operates 3 former U.S. patrol vessels and 3 constructed new in Chile between 1967 and 1971. Colombia operates 6 patrol

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7 A detailed account is provided in "Mk 10 Frigates for the Brazilian Navy," *International Defense Review*, Vol. 5, No. 5, October 1972, pp. 486-490. The article reports that, "On selecting the Mk 10 as the most suitable ship design for their needs, the Brazilian Navy requested a number of changes to be made to the proposed weapons fit, and asked for a wide range of alternative equipments to be considered. The Vosper Thornycroft weapons team consequently undertook an exhaustive technical comparison of a number of different radars, sonars, weapons, and other items." The general-purpose Mk 10 is as a result more heavily armed for the ASW role than many present-day anti-submarine frigates, and evidently introduces notable design changes that conserve manpower.

Among the other countries, in the past 5 years Panama purchased 2 Vosper patrol boats from the United Kingdom, Ecuador 3 fast patrol boats from the Federal Republic of Germany, and Guatemala 3 65-foot patrol boats from Walter Marine Services in the United States. Mexico, in addition to purchases from the United States, has developed facilities for constructing patrol boats. Further, the Cuban Navy operates Soviet-built Komar class patrol vessels.

**Land Equipment**

Because much army equipment is less visible, inventories of major land weapons are somewhat harder to identify accurately than air and seacraft. Identification of such equipment also is complicated by the fact that with the exception of armor, particularly tanks, inventories reflect considerably greater variety of types and sources than is true for other weapons. While the United States and France dominate the tank field, they, together with Germany, the United Kingdom, Italy, and Sweden, are also major suppliers of artillery; and all 6 with the addition of Belgium, Switzerland, Spain, Czechoslovakia, and Yugoslavia, as well as of the major Latin American countries themselves, provide small weapons and vehicles. Nonetheless, some interesting regional and country patterns emerge from the following discussion of major categories of land weapons.

**Tanks.** With the exception of Honduras, Costa Rica, and Panama, all Latin American countries had some armored vehicles in inventory in 1971-1972. Nearly half of these armored vehicles were tanks. As with previously discussed weapon systems, most tanks were concentrated in the larger countries of South America. Including the AMX-series tanks ordered from France by Venezuela in 1972, Latin American inventories contained slightly more than 1000 tanks. Of these, about 90 percent were in the inventories of Brazil, Chile, Argentina, Ecuador, Peru, and Venezuela.

Analysis of these tank inventories reveals additional facts:

- Just over half of all tanks in Latin America's inventories were U.S. models dating from 1939 to 1945.
- Two tanks, acquired for the most part in the past 5 years, the Korean-vintage U.S. M-41 and the somewhat newer French AMX tank series, accounted for the remainder, with the AMX series holding approximately a 2-to-1 predominance over the M-41.
- Two distinct patterns prevail among the 6 countries with significant post-World War II inventories. Brazil and Chile operate only U.S. tanks. They are also the only powers to have M-41s. The other 4 countries, Argentina, Ecuador, Peru, and Venezuela, operate a mix of U.S. and French tanks, with post-war AMXs operating alongside older U.S. models dating from World War II.
Among the remaining countries, only the Dominican Republic has had tanks (AMXs) produced since World War II, while the remainder have all operated U.S. M-3s, M-4s, M-5s, and M-8s. Paraguay’s entire tank inventory apparently consists of 4 U.S. 1939 model M-4 Shermans received as grant assistance from Argentina.

The future in new tanks probably belongs to the French AMX series. The U.S. M-41 medium tank may be a better tank than the AMX-13 light tank in some respects, but it has not been available because of Vietnam priorities. The AMX series is well-suited to Latin American conditions. Many AMX tank parts are interchangeable with those of other AMX vehicles, including armored personnel carriers, self-propelled guns, command vehicles, and miscellaneous other armored vehicles, such as bridge carriers. In direct contrast, U.S. armored vehicles tend to have maintenance requirements peculiar to each model. In addition, the current U.S. main battle tank, the M-60, is more expensive and difficult to operate than its foreign counterparts, and along with the M-48 series, it is too heavy for many Latin American bridges.

But the AMX series, too, has problems. For example, the AMX-13, developed initially for air transportability and weighing but 15 tons, is rather light for its armament. The new U.S. M-60, which weighs 46 to 48 tons (considerably more than even the main battle tank in the AMX series, the AMX-30, which weighs 36 tons), is not a practical alternative. But older U.S. medium tanks may be effectively modernized, thereby limiting future demand for new tanks. Israeli and French technicians have been particularly active in returreting the M-48 Patton series, a phenomenon that suggests equipment sales need not always imply dependence during subsequent utilization.

Other Armored Vehicles. AMX-series armored personnel carriers (APCs) have been assembled in Argentina, and were included in Venezuela’s 1972 purchase of French armor. Despite the inroads of the French AMX series of tanks, however, the United States continues to dominate in full-track APCs. The popular diesel-powered M-113 is relatively inexpensive, simple to operate and maintain, and has been widely sold through FMS in the past 5 years to Argentina, Brazil, Guatemala, Ecuador, and Colombia.

The situation is considerably more open in the field of wheeled armored vehicles. Peru has bought German Unimog APCs, and Mexico has also gone to Germany for Henschel HWK-11s, while Ecuador has bought wheeled APCs of the Panhard AML-245 series from France. British Saladin and Saracen armored reconnaissance and patrol vehicles are operated by Peru and Argentina, which has also assembled Swiss Mowag armored cars locally. A U.S. armored car, the Cadillac V-100, has been sold commercially to Guatemala and Bolivia. In addition, some local production is under way or planned in Argentina, Brazil, and Mexico.

Missiles. Missile and rocket sales have generally been a European monopoly. British Tigercat and Seacat surface-to-air (SAM) missiles and German Cobra antitank rockets are widely held. French Exocet (anti-ship), Australian Ikara (ASW), and other British missiles are prominently on order for naval inventories. Only Venezuela and Argentina seem to possess U.S. Sidewinder air-to-air (AAM) missiles. Brazil and Argentina are the only Latin American countries with any local production capacity for rockets and missiles. Brazil is engaged in a vigorous development program with German cooperation.
Artillery and Mortars. The United States, through its past MAP activities, probably remains the largest single source of artillery in inventories, but now faces sales competition from many countries, including the United Kingdom, Germany, France, Sweden, Italy, Czechoslovakia, and Yugoslavia. As is the case in a number of other equipment fields, recent purchase trends have been clearly away from the United States. This is partially due to the success of French AMX-series self-propelled artillery sold to Argentina, Peru, and Venezuela. Since 1968, Argentina has purchased Italian 105mm Howitzers and Swedish 20mm anti-aircraft guns, but no U.S. weapons. It should be noted, however, that Brazil and Venezuela have bought self-propelled howitzers and anti-aircraft guns, respectively, from the United States. In addition, Argentina and Brazil also manufacture artillery for their own armed forces.

Recoilless rifles and mortars show a similar pattern, with the United States accounting for a substantial proportion of inventories through MAP, and Europe the primary source for new acquisitions. In addition, Argentine, Brazilian, and Mexican weapons are used by their respective services. Peru and Ecuador have also bought Argentine-built recoilless rifles and mortars, while the Dominican Republic has Brazilian mortars.

Small Arms. European countries have again become, as they frequently were in the past, the primary non-Latin American supplier in the small arms field. NATO 7.62mm rifles of Italian make have been sold to Chile, and of Belgian make to Mexico and Peru. German and Spanish assault weapons and the Israeli UZI submachine gun are also popular. The Danish Madsen 9mm submachine gun is also widely held; Venezuela has Madsens in both army and police inventories. Early German Mausers and more recent U.S. M-1 and M-14 rifles and carbines are also found in quantity, although the newer and lighter U.S. M-16 has not been sold in Latin America. Latin American production of small arms and grenade launchers appears to be substantial, particularly in Argentina and Brazil (source of "Saturday night specials" for much of Latin America), but is undocumented. Under Trujillo, beginning in 1951, even the Dominican Republic had a facility for manufacturing 0.30-caliber carbines, the "Cristobal" model.

Non-weapons

Motor transport, initially dominated by the United States, finds German, Italian, Japanese, and Spanish suppliers playing an increasing role. The more significant trend, however, is for Argentina, Brazil, and Mexico to replace older models of vehicles with locally constructed equipment.

U.S. dominance of the communications field has been challenged recently by Germany (which sold, for example, 8 mobile microwave relay stations to Chile and has provided communication and intelligence equipment to Peru and a number of other countries), and by France (which in 1972 sold a $60 million air-traffic control system to Brazil, apparently as a follow-up to the Mirage sales, as well as by Japan and Israel.

Although some French engineering equipment has been sold to Argentina, engineering end-items are predominantly either local purchase or American, particularly through commercial sales.
III. THE DEMAND FOR ARMS IN LATIN AMERICA

The arms transfers discussed in the previous section are the outcome of a variety of political, economic, and military factors that have shaped local demand and international supply during the past decade, and, barring substantial policy changes, may continue to do so for the remainder of this decade. A few major considerations affecting Latin American demand have been the obsolescence of older generations of weapons, the quest for modernity and independence in military well as other dimensions, efforts at "selective regional balancing," the growth of economic and technical capacities, and bad experiences with the United States as a supply source. U.S. effectiveness as a supplier has been reduced by U.S. restrictions on arms transfers, the relative costliness and unsuitability of mainline equipment for the Latin American environments, and the priority given to other international issues. This general deterioration in military relations thus improved initial opportunities for other countries to export military goods to Latin America. Europe's attractiveness as an alternative supplier was reinforced by the design suitability of weapons and the adoption of economic policies that promoted military exports to the developing countries. On a broader scale, the international resurgence of economic and political multipolarity, accompanied by the new strength of the European economies, has naturally stimulated the shifts in the supply and demand patterns.

The next several sections treat these and additional factors in an attempt to single out the forces of supply and demand that account for arms transfers and their probable future dimensions. Focusing on the demand for arms, this section is organized in three parts: The first considers the more significant factors affecting the general demand for arms, both pro and con. The second examines a number of economic and political controversies over the impact of arms on "militarization" and development. The third concludes the discussion of demand factors with an analysis of trends in Latin American military doctrines and local production capabilities that may affect the future demand for foreign weapons.

THE MORE SIGNIFICANT DEMAND FACTORS

When considering Latin America as a region, caution is wisdom. The more than twenty countries display variations in size, cultural heritage, economic potential, government policies, and military strength that belie easy generalization, and that
also often confound policies designed for the region as a whole rather than for individual but interrelated countries. Rather than seeking to establish universal generalizations, therefore, the ensuing discussion is aimed primarily at highlighting some leading factors in the major countries, especially the Big Six of South America.

Generational Obsolescence

Latin American militaries tend to acquire major weapons in the expectation that they will serve adequately for a generation of use; roughly 10 years for aircraft, as many as 20 years for much ground equipment, and sometimes even longer for naval craft. Arms purchases during recent years have resulted primarily from the generational obsolescence and dilapidation of weapons acquired from the United States and Great Britain after World War II and the Korean War. Our earlier review of present inventories consistently revealed the antiquity and sometimes marginal operability of numerous ships, tanks, jet fighters and even transport aircraft in most countries.

The economic, technical, and logistic headaches of attempting to maintain, or just keep in very limited operation, obsolescent weapons make the search for new materiel mandatory as well as attractive. Indeed, further research may reveal that the cost and "sophistication" required to maintain and operate some modern equipment may be no greater than that required to maintain old equipment in operable condition.8

There is some evidence for this at least in the field of military air-transport aircraft. For example, the popular C-47 is no longer standard U.S. Air Force equipment and thus parts cannot be obtained through the FMS system. Latin Americans have had to turn to commercial suppliers who have a near monopoly, with the result that spare parts for these old transports cost more than parts for newer propeller and jet transports. Moreover, high operating costs caused the Brazilian Air Force to phase out of service its C-54s and C-82s during the late 1960s. The aircraft were serviceable and in flying status, and several had just recently been given a major overhaul in the Brazilian maintenance facilities. But the Brazilians had found that it was not possible to acquire new or adequately overhauled engines; and the price of repair parts and spares had increased so much that it was more economical to procure and maintain new aircraft than to continue the operation of the old ones.9

As current purchases ease the obsolescence problem, the demand for new weapons that entail still further technological leaps is likely to subside. Transport and

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8 Though this proposition was suggested to us by our own review of inventories, we have been unable to locate systematic research on the relative operating and labor costs of different equipment in different national environments. In part, of course, this is explainable by vastly different utilization and maintenance practices. But the absence of concern with this issue in the United States also seems attributable to a resource-rich U.S. environment in which the Special Forces are virtually alone in giving systematic consideration to foreign materiel and operating conditions.

utility aircraft are the major areas in which obsolescence of existing inventories remains a prevalent problem.

Government Budgets and Arms Expenditures

Arms purchases are substantially inhibited by budgetary constraints and especially by the shortage of foreign exchange. Indeed, Latin American military expenditures are low in comparison not only to the industrialized world but also in relation to other developing countries. In 1970, for example, military expenditures as a percentage of gross national product amounted to only 2.1 percent for the Latin American nations, whereas the general figure for the developing nations (including Latin America) was 5.0 percent, and for the developed countries 6.7 percent.\(^{10}\) As a proportion of gross domestic product (GDP), military expenditures have rarely exceeded 3.0 percent in the 6 major Latin American military powers during the thirty years from 1940-1970. Moreover, during the same time period their military expenditures have tended to occupy a declining share of central government expenditures, now averaging about 15 percent.\(^{11}\)

The bulk of defense expenditures in Latin America, as in the United States, is devoted to personnel costs. Operation and maintenance expenditures are very low; even maneuvers sometimes require special authorizations outside normal military budgets. Capital outlays are lower still, even in the larger countries, and very limited indeed in the smaller countries. Available data indicate that rising personnel and organizational costs (not arms and equipment purchases) are mainly responsible, along with inflation, for the region’s absolute growth in military expenditures.

Latin American military operating budgets on the average allow only modest funds for weapon procurement, about 5 percent, with total equipment expenditures including spare parts, etc., running around 10 percent of most military budgets. In the larger countries, special appropriations, secret funds, and the practice of spreading payments over several budget periods are commonplace requirements of major purchases, and may on occasion increase the relative weight of procurement in total actual military expenditures to as much as 15 percent, although accurate figures are virtually impossible to obtain.\(^{12}\) Army budgets are generally larger than air force and navy budgets, and often comprise about half of total defense spending. Yet the bulk of arms expenditures comes from the naval and air force budgets.

Since major procurements tend to be sporadic or cyclical, expenditure peaks in particular years (such as attempts to change the secular pattern of low expenditures for armaments) can usually be explained by preceding years of deferred modernization, combined with the high cost of new end-items. About half of the Latin Ameri-


\(^{11}\) Problems of data analysis are discussed in Gertrude G. Heare, *Trends in Latin American Military Expenditures, 1940-1970*, Department of State Publication 8618, December 1971, which presents general military appropriations, differentiated by branch of service, for Argentina, Brazil, Chile, Colombia, Peru, and Venezuela. In addition to A.C.D.A. and Heare, Joseph E. Loftus, *Latin American Defense Expenditures, 1938-1965*, The Rand Corporation, RM-5010-PR/ISA, Santa Monica, California, January 1968, provides statistical data and analysis.

\(^{12}\) The substantial differences among countries in budgetary practices and legal checks on procurement are documented in Boris Kozolchyk, *Legal Aspects of the Acquisition of Major Weapons by Six Latin American Countries*, The Rand Corporation, RM-5349-1-ISA, Santa Monica, California, January 1968 (For Official Use Only).
can countries, the smaller ones, have no regular provision for major procurement. Once a major item is purchased, money for follow-on support may be very difficult to obtain, in part because of competition over the allocation of funds. In more advanced countries, however, planning and procurement practices are beginning to favor "total package" deals or "total system" transfers that include the follow-on support.

During the 1950s and early 1960s, Latin American armed forces managed to stretch their limited budgetary resources for modernization through U.S. government grants and credit sales, usually of secondhand and reconditioned items from U.S. service inventories. Interestingly, that aid relationship may have served to inhibit or postpone (rather than to encourage) the more modern arms acquisitions made earlier by many other developing countries. Now that U.S. grant assistance to the major countries has been discontinued, they must themselves bear the escalating costs of modern weapons. But the increased dollar volume of recent procurements also reflects decisions to undertake modernization previously postponed in the hopes of obtaining U.S. assistance.

These economic factors of low overall resource levels, shortages of foreign exchange, and military budget limitations will continue to act as major restraints to ambitions toward modernization and expansion of the armed forces in most countries. Where the GNP is growing fairly rapidly, as in Brazil, resources for expanding arms purchases will be more readily available. In most countries, however, economic (not to mention technical) limitations make it unlikely that future acquisitions will lead to escalating expenditures or to major increases in military capacity. One effect of these limitations will be a growing cost consciousness on the part of the purchasers. Given the relatively high cost of many U.S. weapons, and the fact that restrictions raise doubts about the continuity of the otherwise reliable FMS system, Latin America will continue to be attracted to purchases from European countries whose weapons are often cheaper, and whose sales proposals sometimes include attractive "offsets."

It is sometimes argued that the availability of "soft" credit terms from the major arms suppliers tends to undermine the effectiveness of the domestic resource constraints that inhibit Latin American arms purchases. The fact is, however, that the credit terms available to Latin America both under FMS and under European financing arrangements can hardly be classed as "soft," and have tended to become, over time, less concessionary and more commercial. Moreover, in the past, the availability of more favorable terms did not induce a pattern of arms purchases that could be easily characterized as reckless or excessive.

Military Doctrines and Missions

Except for Cuba, which has a significant defensive capability, no Latin American country can be considered well armed in terms of major equipment items, or well prepared for external conflict. In fact, the military purpose behind most armed forces is not so much to prepare for war as it is to keep modest but respectable forces in being that have a capacity to prepare for war if necessary. At present, only one or two armed forces appear capable of engaging in regular defensive, much less
offensive, operations against a determined neighbor for more than a week or two.\textsuperscript{13} Yet, as a fairly common denominator in the Latin American environment, two weeks constitutes a reasonable minimum objective, for that is just about how long it would take to arrange for international mediation to restore order.\textsuperscript{14} Recent arms purchases generally reflect this "military infrastructure" approach, rather than any increase in the level of arming. Even Brazil, the one Latin American nation that clearly envisages a potential world role, and also the only country that seems to have exceeded a "replacement" pattern in its recent procurements, started from such a materiel-impoverished base that its forces can still be considered modest.

This relatively low-priority approach to military affairs can be explained in part by the fact that most Latin American nations do not feel that they face threats from outside the hemisphere. The preeminent missions are thus usually internal security and insurance against local conflicts. To the extent that extra-hemispheric threats are deemed to exist, whether conventional or nuclear, they are considered largely the responsibility of the United States. There is, of course, a danger that conflicts among the world superpowers may affect Latin America militarily. The need to restrict attempts of external powers to impose spheres of influence, economic as well as military, is recognized, but it is not viewed as requiring military countermeasures, except in the fields of intelligence and maritime defense.

Disregarding border skirmishes, only one protracted conflict has occurred in Latin America this century (the 1932-1935 Chaco War between Bolivia and Paraguay). Nevertheless, the most important potential external threats are those that might derive from conflict within the Latin American region itself. The two most common issues have been population movements in border areas, and issues affecting remote territories potentially rich in natural resources, including historically disputed frontier areas, and defense of territorial waters, commonly considered to extend 200 miles out from the shoreline.

The presence of tensions among Latin American states creates some concern for regional balancing, particularly now that the United States is declining in relative strength and external interest. The United States is still considered prepared to deal with Soviet military activities, whether in Cuba or elsewhere. But most Latin American countries have taken their own measures to deter or contain potential Cuban subversion, although Cuba's conventional military power could become a future issue, particularly among countries bordering the Caribbean. In a still broader context, Brazil's growing power arouses concern among its Spanish-speaking neighbors, as do, though to a significantly lesser extent, the activities of Argentina in the South and Mexico in Central America.

On the whole, these regional geopolitical considerations create some friction,

\textsuperscript{13} Of course, if political passions were high enough, irregular fighting might continue well beyond a couple of weeks even if heavy ammunition and other stockpiles were depleted.

\textsuperscript{14} An incident at the Rio treaty conference in 1942 to settle the conflict between Ecuador and Peru serves as a poignant reminder of the continuing importance of military power to an equitable international order. When the Ecuadorean Foreign Minister complained (somewhat glibly, as Ecuador's army no longer existed as an operational force after Peru's decisive military victory) that his country had depended on the principles of international law and Pan Americanism in its conflict with Peru, an unnamed Latin American delegate replied that those principles "exist to solve problems. You are not a problem for America. You, with your lack of military resistance, have not made your problem an American problem." See Bruce Wood, \textit{The United States and Latin American Wars, 1932-1942}, Columbia University Press, New York, 1966, p. 315. The reference to "America" was to the inter-American system as a whole, not to the United States.
but lead primarily to efforts at selective local balancing. From a practical standpoint, the relative military technology of its neighbors is of greater importance in the defense planning of each Latin American country than is the technology of the distant superpowers. Local competition among Latin American states is, however, more likely to lead to mutual deterrence than to conflict. Major modernization purchases by one country will frequently be matched selectively by its neighbors. The resulting force levels, though token from the viewpoint of the developed powers, are calculated to enable Latin American military forces to remain "in being" with the defensive capacity to survive beyond the first few days of any potential conflict, and to retain an option on future modernization should the need arise.¹⁵

Ironically, despite the low likelihood of armed conflict, the very fact that Latin American countries generally have little to spend for military ends increases the likelihood that public accusations of "arms races" will be leveled by one country against another in the hope of creating political pressures that might forestall the expense of even token arms purchases. Such atmospherics to the contrary, arms acquisitions in Latin America have not been, are not now, and are unlikely to become comparable to those associated with classical arms races such as those between India and Pakistan, or Israel and Egypt.

Specific external defense doctrines and mission orientations vary widely among the individual Latin American militaries. Only case-by-case analysis would reveal clearly the linkages to particular arms procurement patterns. The Mexican military, for example, perceive no significant external threat, and subscribe to a doctrine, somewhat similar to the Yugoslav "defense-of-territory" doctrine, in which any aggressor would first be met by guerrilla-like forces, while conventional strength remains concentrated deep in the central heartland. As a result, military and civilian leaders both discourage procurement of tanks, artillery, and interceptors or fighter-bombers for provincial, frontier, or coastal defense. In contrast, the major South American armed forces perceive possible external conflicts with their neighbors, and seek some preparedness for conventional operations along their national frontiers and in defense of territorial waters. Their leaders also show some awareness of Israeli "lightning war" doctrine. To the extent their resources allow, their procurement patterns include expenditures for tanks, fighter-interceptors, and coastal defense. That major offensive attacks are not seriously contemplated, however, is attested to by the fact that only very limited operational support is provided to these systems, and that bombers are not a major part of their inventories.

Institutional Dignity Through Modernity

The occasional purchase of weapons that are unlikely to be employed is facilitated by the fact that in Latin America, as elsewhere, military power is one symbol of national prestige: military armaments embody national dignity and modernity. Some arms are acquired simply to meet international, or at least regional, standards of prestige and proficiency. No military branch wants to be saddled with old or

obsolete equipment that reflects adversely on the dignity of the service, and therefore the nation. These considerations apply primarily to such highly visible weapons as tanks, jet fighters, and destroyers. Thus no leading military in Latin America can completely forgo their acquisition, even though such materiel may not be particularly relevant to their "real world" operational requirements.

The urge to have some equipment that meets international standards of prestige and proficiency is often more important than the desirability of having all equipment optimally suited to perceptions of actual military need. But more is at stake than just a nationalistic aura of dignity and modernity. There are practical professional benefits. Having at least a nucleus of a modern weapons capability provides a capacity for future expansion if changing circumstances should require a more substantial force posture. Without some modern weapons it is difficult to attract competent cadets or to develop the military into a modern institution with a self-respecting career service. Officers in the leading countries constitute important organizational and scientific elites interested in the promotion of national development. In this regard, they are frequently interested in importing technology and training that may have positive nonmilitary as well as military uses, and they accept the challenge of dealing with modern technology that may be just beyond their immediate ability to absorb. Indeed, with Mexico a significant exception, military expenditures for arms are greatly affected by the degree of professionalism attained; the more professional the military, the more modern and sophisticated the equipment it may demand and utilize.

The quest for dignity and modernity also encourages military relations with the powerful and prestigious militaries of the advanced industrial countries. During the 1950s and early 1960s the United States had a near monopoly in this regard, and U.S. weaponry acquired a corresponding popularity. The U.S. image, however, has been significantly tarnished. The prolonged conflict in Vietnam, restrictions on arms transfers to Latin America, and the declining suitability of U.S. advanced weapon design have all contributed to doctrinal differences at a time when interest in learning about other nations' militaries, including the Soviet Union's, may be increasing in several countries. What effect this will ultimately have on actual weapon acquisition is unclear.

If the basic effects of military status-seeking encourage the acquisition of major, modern end-items, additional effects tend to limit extensive transfers of heavy arms, and to limit the utilization of those obtained. Procurement patterns reveal an historical tendency to identify modernity with weapon possession, without regard to the training, follow-on support, maintenance, logistics, and general technical and managerial expertise required to use the weapons. This style of acquisition, and its consequent limitation for arms utilization, derives partly from lack of funds and technical training, and is frequently compounded in practice by the lack of modern management systems for organizing maintenance, logistics, and other support activities. When viewed from a broader perspective, this procurement style reflects the fact that principles of dignity and modernity are insufficiently identified with expert equipment management, rather than just with an occasional impressive performance.

Contemporary weapon procurement in the leading Latin American countries is beginning to accept the principle of the "total system" transfer, in which ancillary equipment, maintenance and logistics capabilities, and comprehensive training pro-
grams are all included. In a few Latin American militaries new, or at least modified, principles are gaining ground concerning what constitutes military status and modernity. Prestige relates as much to utilization as to possession. Military security is identified less with materiel acquisition, and more with prior national development. Socioeconomic development programs are given top investment priority, even by military officers, thus fostering procurement preferences that deliberately seek to restrain the purchase of armaments that seem inappropriate or that impose a drain on government investment resources. Such principles are well established in Mexico, which has repeatedly postponed the acquisition of costly new jet fighters. Yet this perspective on military affairs and national development is strongly supported in Peru, which is deliberately seeking a new balance, and it has advocates within most other countries.

**Foreign Policy Flexibility and Independence**

While military relations were but one of a multiplicity of U.S. Latin American ties, the availability of weapons and training from the United States on favorable terms ranked among the many factors that helped to confirm Latin American foreign policies in a direction favorable to the United States during the 1950s and early 1960s. Conversely, conflicts over military procurement that have taken place more recently have contributed to the emergence of "independent" foreign policies within the Latin American region—if only to avoid the aggravations involved when the United States refuses to sell an item after protracted negotiations.

Arms purchases today are thus influenced by a search for a wider range of options in order to decrease historic dependence on the United States. With the industrial recovery of Europe and Japan from the effects of World War II, these options have irreversibly increased. Co-production arrangements, evidently more easily attainable with Europe than with the United States, may provide some stimulus to local industrialization. At a purely commercial level, arms purchases may also become a means of offsetting Europe's generally unfavorable balance of merchandise trade with Latin America. Since the United States does not buy more from Latin America than it sells there (and current trade patterns are very favorable to the United States), this incentive favors the arms trade between Latin America and Europe.

The benefits and motivations involve much more than trade and commerce, however. Political considerations, such as the prospect that Latin America may feel

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16 Indirectly this development is attributable to U.S. military emphasis on logistical and maintenance operations, although some French and U.S. promotion of sales packages also has played a role.


18 West European countries as a whole quite consistently buy more from Latin America than they sell there. Conversely, Latin America's relative decline in the U.S. import market is a source of concern to Latin American governments and appears to be a stimulus for them to buy elsewhere. However, balance-of-trade positions do not appear to have strong effects on arms purchase patterns of particular countries. For one thing, there are substantial differences among Latin American countries in their trade balances with the United States and the major European countries. For example, Venezuela enjoys a highly favorable, and Chile a highly unfavorable balance with the United States, while Peru enjoys favorable and Brazil unfavorable balances with both the major European countries and the United States; yet all four countries purchased the bulk of their arms from France, Germany, and Great Britain during 1968-1972.
more comfortable dealing with more distant and "medium-sized" European powers than with the nearby "giant" United States, may have been important along with weapon cost, design, and availability in fostering European domination of the Latin American arms market in the past five years.

This shift in arms transfer patterns is only one element in a larger pattern whereby most governments, whether rightist, leftist, or centrist, can be expected to strive for flexibility and diversity in their international relations. The changed world context has enhanced the attractiveness of a nationalistic multilateralism that accepts cooperation with the United States on many issues, but rejects the notion of either very close association with or systematic hostility toward the United States. This quest for foreign policy diversity and flexibility will continue to affect the pattern of Latin American arms acquisition in the 1970s.

THE LESS SIGNIFICANT DEMAND FACTORS

It is frequently claimed that arms transfers (and associated military assistance) engender political roles for Latin American military forces by facilitating coups, arming dictators, and strengthening the capacity for repression. According to this view, the less heavily armed the military, the less likely its intervention in politics, and the more likely the growth of democratic institutions and civil practices. A matching economic view is that arms purchases retard economic development by diverting resources from productive causes into wasteful military ventures. The restriction or control of arms transfers thus is seen as one policy instrument for enhancing the prospects for democratization and economic development.

There is insufficient data to confirm or disprove the existence of any general, direct relationships between arms transfers and military rule, repressive policies, or economic growth. Yet recent analyses that focus on general military expenditures and military assistance help to provide some indirect or inferential evidence.

Militarization versus Democratization

To what extent are general military expenditures associated with military participation in politics? Do military governments spend more on defense than do civilian governments? Do rising or falling defense expenditures help set the stage for military coups? Are these matters affected by U.S. military assistance programs? And what can we infer about the role of arms transfers?

Statistical analyses accomplished to date indicate that higher levels of military participation in politics may be associated with higher levels of military spending—but at best the relationship is very weak.19 Historically there are no regular or

19 Whereas earlier studies suggested strong relationships between military participation in politics and military spending levels, more recent studies have found such relationships to be either very weak or insignificant. The pioneering (non-statistical) analysis that insisted on the strong-relationship hypothesis is Edwin Lieuwen, *Arms and Politics in Latin America*, Praeger, New York, 1961. Listed chronologically, the statistical studies include:


consistent patterns that relate military intervention to military spending. During
the past generation, for example, military appropriations have grown more rapidly
in civilian-governed Chile than in military-dominated Argentina. "Democratic" gov-
ernments have been about as likely as "military" governments to allocate resources
to military development—and, as in the case of Venezuela, perhaps more likely to
seek to restrain military intervention in civilian matters by enhancing, through the
provision of modern weapons, their interest in professional military pursuits.
According to the most serious study to date, changes in government, whether civilian
to military or vice-versa, are usually accompanied by changes in military spending,
but in no consistent direction. Increases as well as decreases in military spending
have happened before as well as after military coups—or the change back to civilian
government. There is some historical basis in fact, however, to suggest that when
established governments (whether civilian or military) permit military expendi-
tures to change to abnormally high or abnormally low levels, then there is a signifi-
cant probability that such governments will be overthrown by a military coup, and
that military expenditures patterns will be returned to more normal levels.20

PR/ISA, Santa Monica, California, January 1968.

Philippe C. Schmitter, Military Intervention, Political Competitiveness and Public Policy in Latin

Eric A. Nordlinger, "Soldiers in Mufti: The Impact of Military Rule Upon Economic and Social
1131-1148.

Philippe C. Schmitter, Foreign Military Assistance, National Military Spending and Military Rule in
and Military Rule in Latin America, May 26-27, 1972, sponsored by the Center for Policy Study, University

Center for Advanced International Studies, The Political and Socio-Economic Role of the Military in
Latin America, University of Miami, January 1970.

Mauricio Solaun and Michael A. Quinn, Sinners and Heretics: The Politics of Military Intervention

Schmitter (1970) found a positive, linear association between military intervention and defense
spending as a percentage of central government expenditures. Putnam found a strong relationship
between his military intervention index and military spending as a proportion of GNP, as did Nordlinger,
using African and Asian along with Latin American data.

Later, Schmitter (1972) found insignificant correlations between his military intervention index and
defense spending measured in absolute and per-capita terms. Regressing his index against military
spending as a function of gross domestic product, however, he found a curvilinear relationship, in which
countries that undergo intermittent military intervention have generally higher military spending levels
than do countries in which the military is depoliticized or else dominates the government. Schmitter
(1970) had earlier found this relationship using defense spending as a proportion of GNP.

Solaun and Quinn found only a very weak, positive correlation between the number of coups and the
average percentage of the central budget that went to the military. The study from the Center for
Advanced International Studies at the University of Miami uncovered no generally significant correla-
tion between military intervention and defense expenditures, either in absolute terms or as a percentage
of total government expenditures.

All these works suffer, to varying degrees, from serious conceptual and/or statistical deficiencies. For
one thing, though statistical reportage from Latin America has improved, it remains difficult to compare
one country with another. For another, the schemes for coding military intervention indices seem dubious
in some cases, e.g., Schmitter, who relies on Lieven’s old scheme.

A good, recent, non-statistical statement is Elizabeth H. Hyman, "Soldiers in Politics: New Insights

20 Schmitter, op. cit., 1972, passim. Going beyond the calculation of the static, cross-sectional relationships cited in
the preceding footnote, several authors besides Schmitter also looked at historical, time-series relationships between
regime changes and military expenditures. Loftus, op. cit., p. 36; looking at the three years following a coup, found an erratic pattern; sometimes the budget went up, sometimes
down, and upward movements were frequently trivial and may only have reflected general economic growth.
Solaun and Quinn, op. cit., p. 100, looking at budget changes two years before and one year after a coup, find fairly even splits between cases of budget cuts and budget increases, both before and after
coups. The Center for Advanced International Studies, op. cit., p. 5, found no correlation between trends in
military expenditures and military interventions.
U.S. military assistance programs appear to be even less related to military interventionism and arms demands than is the case with local military expenditures. In a few cases the total size of U.S. military assistance helps to account for the total size of local military expenditures—but this factor is statistically unrelated to patterns of military interventionism and dictatorship.\(^{21}\)

One major difficulty encountered in any attempt to relate military expenditures in general and arms transfers in particular to patterns of military participation in politics is that the choice in Latin America is not between military "dictatorship" and civilian "democracy," though this is the dichotomy often used by American analysts. Political processes in Latin America are based upon many different kinds of civil-military coalitions. So diverse are the political orientations and coalition possibilities among military and civilian leaders that similar conditions pertaining to military budgets and arms transfers may inspire pro-coup forces under some circumstances, or favor pro-democratic coalitions in other situations. Indeed, in recent years military-political participation in some leading countries (e.g., Peru) has served to intensify rather than weaken the national commitment to economic development; and concomitantly, this commitment imposes its own restraints upon military expenditures, in favor of investments in socioeconomic programs.

In sum, while arms transfers have sometimes followed military coups, and military coups have in some cases followed new arms procurements, the evidence that direct causal relationships frequently exist in Latin America is very flimsy indeed. The size of the gross domestic product—not military interventionism—is the best predictor of military budget expenditures. And political and economic factors much broader than military spending and military assistance patterns must be taken into account in order to begin to explain military participation in politics. Moreover, it should be noted again, the more expensive end-items, such as ships and aircraft, are acquired by the air and naval branches, whose political participation is typically quite low compared to that of the army; and indeed much of the public uproar over providing arms to dictators has concerned such weapons as supersonic jets which usually have little direct bearing on the capacity to carry out coups, or more relevantly, to repress popular disturbances. One of the main (and in some quarters least appreciated) facts about Latin America today is that governments there are established. That is, they and their military forces depend upon their institutional and political relationships, not their arms, to keep themselves in power; and they are not likely to be swept away by revolution.

**Military versus Economic Development**

Propositions about the "competition" between military and economic development appear to be as questionable as the foregoing contentions about the political consequences of arms transfers. Concern over "resource diversion" from development to defense had its heyday in the Kennedy era of boundless confidence in

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\(^{21}\) Schmitter, op. cit., passim; Center for Advanced International Studies, op. cit., p. v; and also Charles Wolf, Jr., *The Political Effects of Military Programs: Some Indications from Latin America*, The Rand Corporation, R-3676-ISA, Santa Monica, California, June 1963. The further observation that actions to suspend military aid rarely have the desired effect on a recipient is documented in a classified State Department study cited in United States Security Agreements and Commitments Abroad, Hearings before the Senate Committee on Foreign Relations, Subcommittee on United States Security Agreements and Commitments Abroad, 91st Congress, U.S. Senate, 2d Session, Part 7, June 9, 11, 1970, p. 1836.
economic growth as the touchstone of U.S.-Latin American policy. While this confidence has waned, if not vanished, the simplistic notion lingers on that what is spent on defense constitutes a withdrawal from what would otherwise be spent on development. This is true neither on political nor on economic grounds.

Politically, decisions to buy arms are not casual tradeoffs between two broad resource allocation patterns. Whether they are supported by "special funds" or by funds allocated through the normal budget process, arms acquisitions are typically based either on institutional precedents (established ratios among armed services, for example), or on explicit decisions by the highest political authorities of the government. Neither are easily reversible, particularly through foreign pressures or criticism. Indeed, if experience with U.S. pressures against Latin American purchases of "sophisticated" weapons is any guide, the notion that internal military allocation decisions can be reduced or changed under outside pressure is largely an illusion.

Economically, the relationship between a country's expenditures on defense and its rate of economic growth is exceedingly complex. In a pioneering study of the impact of defense on the economic development of less developed countries, Emile Benoit recently discovered a surprising statistical relationship indicating that defense expenditures may actually have a favorable effect on the civilian growth rate; that is, higher defense burdens were associated with higher growth rates. While Benoit, Dorfman, and Hagen all suggest possible qualifications to this conclusion, the analysis confirms that, at least for the period and countries studied, higher defense burdens were not associated with lower rates of growth. Several possible factors were suggested to account for the potential growth benefits of defense programs: the preservation of political stability, the provision of economic inputs into the civilian economy, growth stimulus through aggregate demand and price effects, perhaps the attraction of additional foreign economic aid, and some subtle psychological and motivational processes.

These are aggregate findings, based on a large number of cases, and not entirely convincing for Latin America, because of its relatively small and consistent overall patterns of defense expenditures. Benoit observes that, for individual cases, the composition of defense programs affects the prospective benefits for civilian economic growth. At one extreme, defense programs that emphasize the procurement of costly advanced weapons may burden growth potential, whether by preempting foreign exchange for import purchases or by consuming domestic resources for indigenous production. On the other hand, defense programs that emphasize training in civilian-related skills for large numbers of men who are soon released into the civilian labor force may contribute to national productivity.

Most Latin American countries, as elsewhere, have defense programs that fall somewhere between these extremes. In addition, there are profound differences in population skill-levels and literacy, as well as in the impact of military services

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between, for example, Peru and Argentina. Can we nonetheless contribute further to a sense of the military impact on development? What, for example, might be the potential effects on leading indicators of growth and welfare if civilian sectors were to receive the resources now spent on advanced weapons that critics argue are unnecessary for national defense? For example, what might be the effect on overall economic growth if funds currently devoted to "unproductive" military end-items were allocated instead to civilian investment?

A very crude model for such a calculation might be developed using the capital/output ratio, that is, the amount of additional output (i.e., GNP) that would be generated by a given volume of capital investment over a specified time period. Let us assume that in the South American countries this capital/output ratio is approximately 3 to 1.23 In addition, the productivity of the reallocated resources will be a function of the relationship between changes in military investment and changes in private investment. Changes in private and military investment affect each other mainly through competition for scarce foreign exchange—military imports compete directly with civil imports for the limited foreign exchange resources available. A given reduction in military acquisitions from abroad will release foreign exchange to the private sector for purchase of imported capital or consumer goods. The actual impact on private investment will depend on (a) how much of the foreign exchange is used to import capital equipment as against consumer goods, and (b) how much of the capital outlays are expended on equipment rather than on plant construction. Assuming the latter ratio to be 2 to 1, and the former to range from 40 percent to 100 percent, then the change in private investment resulting from a given reduction in military imports will range between 80 percent and 200 percent of such reduction. The effect on GNP, therefore, will be the reduction multiplied by the range of the private investment/military investment ratio (80 percent to 200 percent), divided by the capital/output ratio (assumed to be 3/1). This simple model would give us a rough idea of reallocation effects in the short run—but it does not take account of such factors as depreciation, reinvestment, and other elements that would be relevant in a calculation of longer term effects.

In attempting to apply this simple model to the 6 major South American countries together, we might make the further working assumption that on the average, and over time, major military procurement expenditures24 consume about 5 percent of the annual military budgets (that is, about half of the total expenditures on all kinds of equipment).

On this simplified basis, what might be the potential GNP effects for a given year, say 1970? With the military budgets of the 6 leading South American countries totaling about $2.2 billion that year, an estimated 5-percent expenditure on advanced weapons would amount to about $110 million.25 This figure ($110 million)

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23 This may be a generous assumption. Using International Bank for Reconstruction and Development (IBRD) data, Benoit (op. cit.), Vol. II, p. 40 gives the following averages for gross marginal capital output ratios during 1960-1965; Argentina, 4.7; Brazil, 5.5; Chile, 2.6; Colombia, 4.4; Peru, 2.8; and Venezuela, 3.1.

24 That is, jet bombers, supersonic fighters, aircraft carriers, destroyers and any accompanying missile systems, submarines, and tanks.

25 The orders actually placed for military procurements in the 1968-1972 period averaged $300 million or more and advanced weapons accounted for more than half that amount. Two considerations, however, suggest our $110 million figure is not unreasonable as a basis for this calculation. First, procurement orders on credit enable actual expenditures to be spread over many years. Second, as we argue elsewhere, many recent orders reflect postponed modernization, and are cyclical rather than
divided by the capital/output ratio (3/1), and varied according to gross private/military investment relationships (from 80 percent to 200 percent) would yield a high of $73 million and a low of $29 million. That is, if the original $110 million spent on "unproductive" military equipment were instead spent on "productive" capital goods in the civilian economy, we might expect an additional $29 million to $73 million to be added to the GNP each year.

With aggregate GNP for the 6 countries in 1970 amounting to $88.1 billion, and with GNP per capita approximating $507, the $29 million figure would raise GNP by 0.03 percent and GNP per capita by about 10 cents. The $73 million figure would raise GNP by about 0.1 percent, increasing GNP per capita by about 40 cents. In other words, over a one-year period the effect of a 5-percent reallocation from military consumption to civilian production would be economically trivial. Of course, if 5 percent were reallocated every year, with past reallocations still generating added production, then over a 10-year period some marginally significant effects would begin to show. But the basic point stands: in relation to total GNP, the amount spent on advanced weapons is so small that its reallocation would have little effect on productivity even when we assume that it would be invested rationally.

To look at the matter differently, what might be the effect on public expenditures for health and education from a reallocation of the advanced weapon expenditures? In 1970 estimated federal expenditures on health and education in the 6 countries amounted to approximately $3.3 billion (50 percent more than the total for all military purposes). If all the weapon funds were transferred directly to public expenditures on education and health, these would rise by about 3.3 percent. Under the more plausible assumption that the funds would be distributed among all civilian sectors of government expenditure according to their normal share of the national budget, then health and education would receive about 20 percent of the transfer, making a difference of 0.7 percent.

What might be the effect on trade balances? Expenditures on advanced weapon systems consume foreign exchange for the importation of the end-item, follow-on support, and interest charges. In 1970 total imports of goods and services for the 6 countries were valued at about $12.9 billion. If the military expenditures were reduced in such a way as to generate no new imports, the value of imports could be reduced by 0.9 percent per annum. In 1970 the aggregate balance of trade deficit (exports minus imports, for both goods and services) was about $1.1 billion for the 6 countries together. Thus such a military savings would reduce the deficit by some 10 percent, assuming that exports were not also affected (for example, because of the existence of "offset" arrangements).

These calculations, however crude, may help to illuminate the approximate range of likely effects. Because of the very small magnitude of these effects, even major changes in our assumptions would not materially alter our conclusions.  

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26 The reintroduction of political and alternative weapon systems in this discussion, such as the fact that when the United States refused to sell F-5s, Peru in 1967 bought more expensive Mirages, thus spending more than initially planned, only underscores the practical difficulties and dubious returns attendant upon external pressures to redirect military expenditures toward development.
NEW TRENDS AFFECTING FUTURE ARMS DEMAND

As the various domestic and international factors have brought about shifts in arms transfer patterns, so also have the Latin American militaries come under strong pressures to reexamine their roles and redefine their doctrines. Most importantly, trend-setting military leaders in Peru, Brazil, and Argentina are determining that national security depends upon national development, and vice-versa.

Doctrine and equipment are mutually interdependent. Thus, encouragement of investments in economic development rather than in military arms and equipment may be the best way for the military to promote national security. As the security-development nexus, rather than strictly military defense considerations, has become the basis for national security doctrines, officers have paid increasing attention to threats of “economic aggression” from foreign businesses and financial entities, and to the need to develop (economically, demographically, and otherwise) territorial control over marine and energy resources, as well as over potentially valuable border lands whose poor integration into the national system makes them vulnerable to aggression from neighboring countries. As happened during the inter-War period, military officers are also exhibiting rising interest in European and other non-U.S. doctrines that will help foster national independence and self-reliance. 27

Toward Doctrinal Redefinitions

Where discussions about doctrinal redefinitions will lead is uncertain. Four possible trends may be discerned, however. First, the concept of “integral” security doctrines that explicitly embrace and balance national defense and national development is gaining strength, justifying military participation in politics, and raising the priority of economic development for the military. 28 Second, while continuing their attention to U.S. doctrine, Latin American military officers may become interested in the adoption of “territorial defense” doctrines that have been developed in other Third World nations, such as Indonesia and Yugoslavia. 29

The third and fourth trends relate more specifically to arms transfer patterns. That is, redefined doctrines are likely to call for the limitation of heavy and/or

27 The relationships among doctrine, development, and dependency are perceived by a leading Argentine strategist as follows: “There is another way of distracting the attention of the command cadres from the revolutionary aims, or at least of obfuscating and confusing the basic issue which I mentioned. This is the influence which is wielded by the big powers through professional channels. Prior to World War II, professional and doctrinal sources were usually looked for in Germany, Great Britain, or France. Since the war, the leading role was assumed by the United States, not only as the result of its strength but also due to the ideological confrontation and cold war with the USSR. In this respect there is a real military dependency which should be placed within its true framework. This dependence is mainly seen in the doctrine and logistics, and is carried out through military aid… What is frequently overlooked is that the U.S. military policy is only a part of its general strategy, whose aims may be contrary to the aims of change and transformation of our countries.” Gen. Juan Enrique Guglielmini, “Armed Forces in Latin America: Armed Forces and National Revolution,” Review of International Affairs, Vol. 23, No. 540-1, October 5-20, 1972, p. 24.

28 Leading Argentine analyses of local geo-political conditions and the need for “integral security” doctrines appear in Gen. Osiris G. Villegas, Políticas y Estrategias para el Desarrollo y la Seguridad Nacional, Ediciones Pleamar, Buenos Aires, 1965; in Guglielmini, op. cit., and in issues of Estrategia (Buenos Aires), published bi-monthly by the Argentine Institute for Strategic Research. Brazilian and Peruvian orientations are discussed in Einaudi and Stepan, op. cit. Also see p. 29 above.

highly advanced weapons in local inventories, and for home production of much light and intermediate equipment. The adoption of "integral security" and "territorial defense" doctrines would help to foster these possible trends. But another issue is likely to be the driving factor: cost.

The issue of cost is fundamental. It is costly to operate obsolescent equipment for which spare parts are no longer in production. In addition, most new armaments currently produced in the industrialized world incorporate technology that makes them both highly specialized and costly. The latest American battle tanks, for example, are too expensive, too heavy, and too "gold-plated" for Latin American requirements (though this is probably not true for the older M-41). Recent purchases of supersonic combat aircraft and missile-launching destroyers indicate that the major Latin American armed forces are determined to attempt to incorporate, at least in part, the advanced military technology of the industrial nations. But the costs of even token amounts of advanced military technology are high; and the cost impact is especially severe given the abnormally low-cost basis on which Latin American militaries were able to build up their conventional inventories after World War II. Not only have unit costs soared for most categories of military equipment—they must now be met in full by Latin American countries themselves.

The implication is clear: while certain irreducible requirements for foreign-produced "prestige" arms will be met, current developmental and defense interests will compel most Latin American militaries to formulate doctrines that stress using relatively low-cost, intermediate weapons. New doctrinal views will still compete with the more traditional views held by officers and politicians concerned with emulating the major powers; and thus some militaries may still seek to acquire major end-items that appear to be ill-suited to their means and needs (such as cruisers, advanced fighter-bombers, medium tanks, and heavier items). But the emergence of a multipolar world order, the decline of U.S. military prestige, and the escalating costs of advanced weaponry, in combination with local national security perceptions, seem likely to settle doctrinal redefinitions in favor of arming with intermediate weapons that seem suited to both territorial defense and development requirements.30

The 1970s thus seem likely to focus interest on such equipment as small tactical jet fighters, medium transport aircraft, and helicopters; coastal patrol boats and reconnaissance planes (less to hunt submarines than to protect territorial waters); light tanks, armored personnel carriers, artillery, and transportation vehicles; engineering equipment; and simple missile and communication systems. Besides having relatively great importance for serious military operations, missile and communication systems serve to improve Latin American technical competence, and, in the case of missiles, afford considerable visible prestige. Moreover, these equipment items are relatively low cost compared to modern ships and aircraft, and can be used to modernize without necessarily requiring the purchase of special vehicles to carry them. It should be noted that such systems are currently a major focus of European sales and development efforts.

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30 Some relationships between military doctrines and force postures (and their possible redefinition) are discussed in a European setting by Steven L. Canby, "NATO Muscle: More Substance than Shadow," Foreign Policy, Fall 1972, pp. 38-49; and more broadly by William A. Johnson, U.S. Military Aid Programs and Conventional Arms Control, California Arms Control and Foreign Policy Seminar Discussion Paper, Los Angeles, California, January 1973. Both articles serve to raise serious questions about the relevance of traditional U.S. doctrines for Latin America, and are suggestive of alternatives.
Doctrinal emphasis on intermediate weapon systems will be reinforced by growing interests in local military production, and by related considerations of relative investment costs, technology levels, international cooperation, and potential markets. Home supply of a nation's armed forces, however, will not be the only objective. Rather the region's more developed nations, long constrained by an illusion of industrial inefficiency,²¹ have begun to search for export markets in Latin America and elsewhere for non-traditional goods, and will make an effort to include light and intermediate arms among them.

**Indigenous Production Possibilities**

Argentina and Brazil between them are currently producing limited quantities of most of the intermediate materiel items mentioned above, under licensed assembly or co-production arrangements. By 1980, though many components will still be imported, these two countries can be expected to produce a number of original designs. In addition, Argentina and Brazil have long engaged in the indigenous manufacture of small arms, ammunition, and various explosive devices, as do a number of other countries. Mexico, for example, has some capacity for producing small utility aircraft, armored cars, military trucks, and coastal patrol vessels—although unlike Argentina and Brazil it shows little interest in developing military industries.

Will indigenous production of military material become a significant future trend? Given a continuing modest demand for arms, a variety of nationalistic economic and technical objectives indicate the possibilities: import substitution, industrialization, the development of a technically skilled labor force, technology transfer, rivalry for regional export markets, and reaction against the costliness and sophistication of weapons designed for U.S. and European theatres. But the driving factors are not only economic and technical in nature: the redefinition of military doctrines, the quest for national independence, and political apprehension about the influence of foreign powers also favor new efforts at indigenous production. Argentine and Brazilian interests may also be stimulated in part by the possibility of a growing volume of intraregional trade in arms in South America, with the more advanced countries providing military equipment to the less advanced. Any such regional arms trade, however, will depend critically on the degree of political integration that may be achieved within the Latin American region. Limited sales of Argentine, Brazilian, and even Mexican equipment have already taken place, but significant growth is unlikely in the presence of continued rivalries and mutual suspicions. In addition, any major reliance on indigenous production would necessitate concentrations of human and capital resources and impose requirements for technical support that are extremely unlikely if not unwarranted in Latin America during the coming decade.

In assessing the capacity of Latin American countries to produce their own arms, we must distinguish between the long and the short term. Over the long term

(say, over the next 10 to 20 years) the industrially more advanced countries of Latin America (especially Brazil and Argentina, but eventually also Colombia, Peru, Venezuela, and Chile) will increasingly enter the "international production community," that growing list of countries that participate in the multi-national production system. The internationalization of production may be the most significant economic phenomenon of the late 20th century.32

International production results when inputs, such as capital, technology, management, labor, and raw materials from different countries are combined in a variety of ways to create a single product or group of products. Management and technology, for example, may come from one country, be combined with capital from a second, utilize a labor force in a third, and draw on raw materials from a fourth; or components of a single product may originate in several different countries. International production worldwide now accounts for perhaps one-sixth of the Gross World Product (GWP), but is growing at a rate much faster than the GWP. Inevitably, the more advanced Latin American countries will be drawn more deeply into this system, but the important question is "how deeply and how quickly?"

The process of technological transfer and absorption has been both extensive and rapid in the more vigorously developing countries, which now produce a rather impressive array of industrial goods ranging from simple consumer items to sophisticated engineering products. Yet chronic foreign exchange constraints and pressure to reduce a high level of unemployment tend to lead such countries into a proliferation of relatively labor-intensive industrial plants producing at an inefficiently small scale for a domestic market of inadequate size. These pressures also lead them into areas of processing and fabrication that are beyond their technological capabilities. Inefficiencies tend to be compounded by protectionist policies that create a seller's market illusion, in which quality control and material standards are difficult to enforce. Moreover, high-cost domestic supplier industries tend to price manufactured goods out of world markets, thus preventing attainment of the high level of exports needed to make volume production possible. Diseconomies of small-scale production are often aggravated by unrealistically high requirements for "domestic content," the share of total value of production that must be locally produced. In short, most of the more advanced Latin American countries have so far failed to achieve the kind of international division of labor in finished products, subassemblies and industrial materials, or to develop the kind of marketing and trading arrangements that could make them competitive in world markets; and such competitiveness is ultimately essential to the success of their industrialization.

While these disabilities hold true for most Latin American countries, they appear to be very much less in evidence in Brazil. On the contrary, through its automotive industry in particular, Brazil has demonstrated a dramatic capacity within a brief few years to transform a rudimentary operation into a highly efficient, large-scale, export-oriented, thoroughly competitive industry, one that now manufactures and fabricates some 600,000 automobiles per year—400,000 of which are Volkwagens. Volkswagen's management were truly astounded at the success of their venture. They admit that some 8 years ago, when they started with a simple assembly plant, such a vast Brazilian operation seemed quite impossible. Now, they have

32 Lester R. Brown, World Without Borders, Random House, 1972, provides an excellent description of this process.
developed a very healthy respect for Brazil's future in the metal-working industries as well as many other high-technology spheres.

Will Brazil or Argentina achieve similar successes in the military production sphere? Assessments on this vary from the highly optimistic to the thoroughly negative. There are, of course, important areas of military production, e.g., small arms and some intermediate weapons, in which both countries have a long tradition and could develop a substantial production capacity. Argentina's interest in military industries antedated World War II, was given a sharp boost by Peron, and may be stimulated once again by the new Peronist government of President Camora. Aircraft production, in which Brazil also has a 30-year-old tradition, may illustrate some of the potential.

Brazil is now engaged in an energetic effort to master the entire enterprise from airframe design and engineering to assembly and fabrication. EMBRAER, the official Brazilian aircraft design and manufacturing establishment founded in 1969, has an ambitious 4-year program for mastering production of aircraft piston engines, and an 8-year program for gas turbine engines. It has succeeded in enlisting some 50 of the largest Brazilian automotive-part suppliers in a program to produce and export a range of aircraft and engine parts to other countries. By means of a helpful licensing and co-production relationship with Aermacchi of Italy, it is currently assembling a relatively simple jet fighter-trainer, the MB-326 Xavante. The Brazilian Air Force has ordered 112. EMBRAER has also designed and developed, mainly on its own, the EMBRAER 110, also called the Bandeirante C-95, a $600,000 twin-turboprop light transport aircraft. The company reportedly has 80 on order from the Brazilian Air Force and a 2-year backlog of orders from other Latin American countries. Plans are also under way for the production of a medium-sized transport plane, the Amazonas.

EMBRAER is reported to be considering the purchase, under licensing co-production plans, of Northrop F-5B and F-5E jet fighters, of Aeritalia's G.91Y, or of the Dassault-Breguet Mirage III/5 series. At least in the initial stage, any such arrangements would probably amount to little or more than a "screwdriver operation," in which the completed fuselage, wings, tail surfaces, engine mounts, etc., would be imported in disassembled state, and EMBRAER would simply mate and assemble the major components, adding perhaps 10 percent to the value of the imported items. More extensive Brazilian co-production contributions, such as assembling entire wing and fuselage structures and building up components from detailed purchased parts would be left to distant and somewhat nebulous future stages.

Whether EMBRAER has such an unhurried and unambitious conception of co-production relationships remains to be seen. And whether a "screwdriver operation" or a repeat of the Brazilian Volkswagen experience is the more reliable standard for judging how rapidly Brazil will become a major independent arms supplier in Latin America, only the future will tell. But if EMBRAER's determination, sustained Brazilian government support, and apparently sensible long-range planning offer any indication, it is likely to be sooner rather than later. Moreover, it is

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23 Lockheed Aircraft Corporation reportedly owns a 20-percent share in Aermacchi. Using the Aermacchi MB-326G, the EMBRAER factory will co-produce the Xavante TF-26.
24 Another company is being established in Brazil for the production of helicopters beginning in 1974, again under Italian license. According to Brazilian estimates, the helicopter demand over the next 5 years will include 435 for Brazil and 375 elsewhere in Latin America.
significant that most foreign manufacturers recognize that, in order to sell their aircraft in Brazil today, it is almost mandatory to permit some form of co-production.

Brazil’s efforts in the aircraft field are paralleled on a lesser scale by Argentina’s development of the Pucara AX-2 counterinsurgency plane and the Guarani light transport. In addition, the Argentine army’s Plan Europa is explicitly designed to seek co-production arrangements with European arms manufacturers as an initial step toward developing an independent Argentine military production capacity.

General Uriburu, Plan Europa’s originator and chief ideologist, envisages rapid advances toward 80 percent or more local fabrication, and ultimate total design capacity. But he is also appropriately cautious. The opportunities for military production, he has written, initially “lie mainly in ammunition, meaning in our case large caliber artillery projectile and tactical rockets.” General Uriburu provides two simple calculations to support his point:

<table>
<thead>
<tr>
<th>88.9mm Rocket Launcher</th>
<th>$ 275</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rockets (6000 at $20 each)</td>
<td>$120,000</td>
</tr>
<tr>
<td>Cost of weapon as % of system</td>
<td>0.23%</td>
</tr>
</tbody>
</table>

and

<table>
<thead>
<tr>
<th>105mm Howitzer</th>
<th>$ 8,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammunition (3000 rounds at $40 each)</td>
<td>$120,000</td>
</tr>
<tr>
<td>Cost of weapon as % of system</td>
<td>6.25%</td>
</tr>
</tbody>
</table>

Thus, even modest advances limited to the local production of munitions may yield substantial savings without requiring the special metals and costly tooling characteristic of major weapon production.

In its drive for national independence, however, Argentina’s army has moved with Plan Europa well into the production of intermediate weaponry. Swiss Mowag armored cars and French AMX-series tanks and armored vehicles have been assembled in Argentina through co-production since 1968. After observing armored personnel carriers, self-propelled guns, and scout vehicles that integrate the AMX-13 chassis with Argentine components, a qualified American observer commented in April 1972 to one of the authors that, “The Argentines have had some problems but nothing they can’t solve. It [the French-Argentine AMX] is a nice little weapon system.”

Future prospects for indigenous military production nonetheless remain quite indefinite. Latin American countries have had mixed experiences with local military production. Many military as well as civilian attempts at “leading sector” industrialization have failed, making planners less than sanguine about the future of military industries as a potential motor of general economic development. Plan Europa itself has failed to meet all expectations. But both Argentina and Brazil have made some surprising advances in selected areas. The continuing development of indigenous military industries can be expected to have two very general effects on the Latin American demand for arms transfers. Over the long run the proportion of light and intermediate armaments sought from outside the region may decline.

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Over the short run, the type of transfer relationship sought with the advanced world powers will continue to shift in favor of local assembly and co-production arrangements.

SUMMARY COMMENT

Situations differ greatly from country to country, even if we limit our attention to the few that account for most of the military might and arms transfers in Latin America, the Big Six of South America. Consequently, it becomes extremely difficult to make accurate predictions about future arms demands without engaging in country-by-country analyses. Nevertheless, the foregoing discussion has highlighted a number of propositions and trends that seem useful for understanding contemporary developments and probable future directions of arms demands as a general regional phenomena.

The current cycle derives in large part from the generational obsolescence or at least aging of inventories acquired one to three decades ago. The relatively small size of national and military budgets places strong constraints on the potential allocations for arms purchases, with follow-on support often being neglected. Where GNP and government receipts are expanding rapidly, as in Brazil, one can expect concomitant expansions in allocations for arms transfers. Yet, unless the acquisition of advanced weaponry at high cost is a major emphasis, military budget expenditures in general are not necessarily detrimental to the growth of the civilian economy.

Desires for national independence and the traditional content of local military doctrines legitimize purchases that allow for external as well as internal defense missions; indeed, contrary to some U.S. advice, Latin American governments generally reject doctrinal concentration solely on internal security. Doctrinal redefinitions and indigenous production possibilities foster interest in intermediate types of arms and equipment as the backbone of the local armed forces. Nevertheless, the quest for institutional dignity through modernity also encourages most militaries to include some prestigious advanced weapons in their inventories. Finally, these varied demand factors also serve to facilitate Latin American purchases from diverse international suppliers.
IV. THE UNITED STATES AND EUROPE AS SUPPLIERS

What is the current competitive position of U.S., European, and other potential suppliers? Are there appropriate measures which may enable the United States to recover some, if not all, of the economic market it has failed to gain during the past decade or, more importantly, to improve political and military relations? This section reviews governmental and industrial arms-transfer policies, with particular attention to the U.S. FMS cash-and-credit-sales system, and concludes with some considerations about future trends.

Though the central focus of this section is on the arms-supplying countries, it is well to keep in mind that we are concerned with supply to Latin America. The political sensitivity of arms transfers has been a recurring theme of this report, and presumably no American reader needs to be reminded of the U.S. tradition of concern over "unnecessary military expenditures," particularly in Latin America. A different perspective may be illustrated by the following example. When several South American countries decided in the mid-1960s to seek F-5 jets as replacements for their air forces, they did so with mixed motives, as discussed earlier. Economic constraints, however, typically led to negotiations for the purchase of one squadron, rather than, say 4 or 5 squadrons. U.S. refusals to sell the F-5 were thus perceived less as reflecting concern over expenditures than as affecting basic questions of national pride and independence, if not survival. European acceptance of Latin America's "right to purchase" versus the U.S. emphasis on the "merits of the purchase" provided economic dividends to the Europeans and a political black eye to the United States, and contributed to current Latin American efforts to diversify their sources of supply. An essential consideration in this section, therefore, is the nature of the present and potential sources, including the United States, available to meet Latin American needs today.

GOVERNMENTAL AND INDUSTRIAL POLICIES ON ARMS SUPPLY

The arms supply business is fraught with ideology, concepts of political influence, debates over militarism, and commercial pressures. Where military objectives and requirements loom large, most of these issues are dominated by military considerations (effects on force structure, relative weapons posture, mission suitability, etc.). Military rationales are obviously critical in the internal calculations of the
major powers and in transfers of arms to "forward defense" areas or other conflict zones. But military factors are of less significance in considering transfers to Latin America, where political and economic issues take precedence in the policies of the arms-supplying countries.

Among the major arms suppliers, two patterns may be discerned toward Latin America: the political, which considers arms transfer as a special extension of a network of political relationships; and the commercial, which sees arms transfer essentially as a transaction in the sphere of international trade. The United States generally takes the political viewpoint, whereas France tends to be the chief exponent of commercialism in the arms field. Neither of these rationales, however, stands entirely on its own, as even the most political approach is constrained by economic realities, and as commercial activity is decisively affected by state policies seeking to control, promote, or limit the production and flow of arms through private channels.

Governmental controls over arms transfer vary widely from country to country. All governments impose some controls. A few, like Sweden and Switzerland, have adopted self-denying ordinances that cover much of the globe. Sweden and Switzerland aside, Great Britain and the continental European powers tend to promote sales more singlemindedly than does the United States. France in particular seems to be following aggressive promotional policies, sometimes linking the provision of arms to economic and technical assistance in other areas, and only occasionally lapsing into self-imposed restraint.

The United States seems to follow policies intended simultaneously to promote and to limit the supply of arms to Latin America. U.S. policies moderately promote the supply of arms through the Military Assistance Program and the U.S. military officers serving in Latin American countries as implicit advocates of U.S. technology, procedures, and weapons. U.S. policies limit the supply of arms chiefly through a series of congressional restrictions on the types of weapons and the amounts of governmental credit available for their transfer, detailed below and in the Appendices. Additional de facto limits are imposed by the availability and suitability of particular weapon systems (also covered further below).

These general orientations are reflected in the more detailed comparison of U.S. and European approaches to the general issue of arms export that follows.

U.S. Arms Export Philosophy

Latin America has never been a major consideration in U.S. arms transfer policies. In the 1950s, U.S. policy was built around grant aid, not sales, aimed at rearming Western Europe and bolstering "forward defense" countries. In the early 1960s, Defense Secretary McNamara's concern over the potential loss of standardization within NATO, coupled with the deteriorating U.S. balance-of-payment position, resulted in a shift from grants to a vigorous sales effort. Again, however, this effort was aimed at NATO allies, not at Latin America. Its main purpose was to

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31 The generally moderate effects of U.S. training on weapon acquisition are described in Geoffrey Kemp, Some Relationships Between U.S. Military Training in Latin America and Weapons Acquisition Patterns, 1969-1969, Arms Control Project, Center for International Studies, Massachusetts Institute of Technology, February 1970. According to Kemp, MAP training facilitated the acquisition of light and some intermediate weapons for internal security, while restraining the acquisition of heavier weapons more useful to external defense.
extract a European offset to the cost of maintaining U.S. troops in Europe. In addition, the arms for sale were optimized to U.S./NATO operational requirements. The military export market elsewhere was simply not considered important enough by U.S. manufacturers to justify specialized designs for less developed countries (the solitary exception was the Northrop F-5 light jet fighter, developed explicitly for such countries under the MAP program). Typically, the United States develops weapons for its own forces and exports them more or less as an afterthought.

European Arms Export Philosophy (mid-1960s on)

Arms manufacture in Europe takes place within small domestic markets, even when sales are considered over all of Europe. Short production runs signify high unit costs. In addition, the remorseless upward march of costs for modern weapons makes exportability almost a precondition of economically feasible weapon development for European producers. The Europeans have thus taken several measures.

**Search for Appropriate Design.** European design philosophy attempts to make the home and foreign markets compatible. They opt for multirole weapons that are adaptable to both sophisticated and unsophisticated uses. Examples are France’s Mirage III and 5 and the Anglo-French Jaguar (the Multirole Combat Aircraft, MRCA), all basically aerial weapon platforms, adaptable for multipurpose use with simplified avionic systems.\(^{38}\)

While European arms manufacturers expend great efforts to tailor their weapons to the home and export markets, U.S. research and development programs have focused increasingly on a relatively narrow range of extremely high-cost ultra-complex systems specialized to a kind of strategic combat environment that bears no relationship to the military needs, economic capabilities, or political realities of Latin America. U.S. military aircraft now under development (the Navy/Grumman F-14 and the Air Force/ McDonnell Douglas F-15 air-superiority fighters) represent extreme examples of this trend.\(^{39}\) In addition, some current U.S. aircraft that are relatively suitable (the Northrop F-5E fighter and the Cessna A-37) are either not mainline U.S. military weapons, or are viewed within the U.S. military establishment as of only secondary interest. This raises doubts in the minds of Latin American buyers as to whether, without a strong U.S. military commitment to these weapons, they will be assured of adequate follow-on support at reasonable costs.\(^{40}\)

Despite these problems, U.S. advanced aerospace weaponry may yet be in a better competitive position than many other kinds of military equipment. Certainly

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\(^{38}\) Contrasting design philosophies, with particular attention to the experience of Avions Marcel Dassault-Breguet with low-cost incremental improvements, are well documented in Robert Perry, *European and U.S. Aircraft Development Strategies*, The Rand Corporation, P-4748, Santa Monica, Calif., December 1971.

\(^{39}\) It should also be noted, however, that simpler equipment designed to meet a range of U.S. contingencies often has characteristics not required in the Latin American environment. One example, included in an FMS catalogue prepared by the Office of the Director of International Logistics, Department of the Army, is a self-propelled gun advertised as "capable of operating in temperatures ranging from -65° to +120° F."

\(^{40}\) It seems that even U.S. military services are beginning to recognize the limited range of weapon choices available to them from U.S. sources outside the mainline strategic sphere. For lack of comparable hardware on the U.S. market, for example, the U.S. Marine Corps has turned to Britain for quantity purchase of the Hawker Siddeley AV-8A Harrier VSTOL fighter, an aircraft, incidentally, that is in its own way quite "sophisticated," but may nevertheless also be highly relevant to future Latin American needs.
now as in the past, U.S. weapons enjoy an unrivaled technical reputation throughout Latin America. In terms of the important qualitative indicators, such as technical performance, durability, combat effectiveness, logistical (not political) reliability of follow-on support, and so forth, U.S. equipment earns highest marks. If the decision were made on technological grounds alone, free of political cost constraints or considerations of absorptive capacity, Latin American purchasers would almost certainly favor the U.S. product in most item-by-item comparisons of appropriate equivalents. But unfortunately, appropriate equivalents can be found less and less in the contemporary U.S. weapons mix.

There is a real question whether current U.S. designs can hold their own in a comparison with Europe, in such items as light tanks and wheeled armored vehicles, STOL transport aircraft, small naval craft, turbine-driven vessels, conventionally powered submarines, and simple missile systems. While its attention has been focused on high technology systems, the United States is losing, or has already lost, the competition in those simple arms and intermediate conventional weapons that can be developed with minimal research and development costs in any industrial country. In short, the "competitiveness" of the United States in the Latin American arms market may be significantly constrained in the 1970s by this factor of design unsuitability.

Vigorous Sales Efforts. Stung into action by McNamara's energetic NATO sales drive, Britain and France developed their own promotional organizations. Both the British Defense Sales Organization (DSO) and the French Direction des Affaires Internationales (DAI) are linked to their respective arms manufacturers in a symbiotic relationship. Their energetic promotional practices, and the financial incentives they offer their clients are stimulated largely by their intense economic need to compete and by their recognition that the U.S. Foreign Military Sales (FMS) system (treated in the next section) poses a tough competitive challenge for them.

The French drive toward arms exports can be illustrated by the arrangements and characteristics of the Satory III exhibition held in 1971 under the joint sponsorship of the government and private industry. (One of the leading stockholders of the Société Française des Matériaux d'Armements (SOFMA), the main French exporter of land weapons, is the French government.) The 3-volume catalog of the exhibition reveals some pertinent characteristics of the French sales effort. In addition to presenting information on new French equipment, Vol. I, Armements, includes such entries as, "Modernization of the Patton Tank M-47 by installation of a 105mm gun," and "Installation of a 90mm gun on the M-20 vehicle." These modifications exploit the widespread use of American armaments, and claim that their modernization (through "increased firepower without reducing mobility or mechanical strength") can be obtained by modifying basic American equipment with newer French weapons.41


Slick brochures are, of course, nothing new in the business of selling arms. But the French emphasis on foreign sales is underscored both by the volume of material and its multilingual characteristics. A pamphlet on the Panhard light armored car, for example, is profusely illustrated in color and has a trilingual text in English, French, and Spanish. PANHARD AML, 32 pp. Société des Constructions Mécaniques Panhard et Levassor, 18 Avenue d'Ivry, 75 Paris 13ème, France.
Meanwhile, U.S. organization sometimes seems designed not to facilitate even those sales unaffected by U.S. restrictions. The cumbersome process by which the U.S. government "controls" arms sales has imposed a level of uncertainty upon the system sufficiently high to act as a serious impediment to many Latin American would-be purchasers. While Office of Munitions Control procedures have been substantially streamlined in recent months, the 500 or 600 export applications or sales proposal requests that are processed in that office annually must still travel a tortuous route before a license is finally issued. By all indications, European procedures are far simpler and more predictable.

From a Latin American viewpoint, a strong point of European sales is the coordination between the private and public sectors: foreign buyers are dealing with one focal point rather than getting caught in internal domestic politics and bureaucratic in-fighting, as frequently happens in dealing with the United States.

Provision of "Offsets" to Purchasers. To mitigate the foreign exchange costs of the weapons procured by Latin American purchasers, European sellers are occasionally willing (and institutionally able) to place offsetting orders in the purchasing country for set amounts of local products (a form of barter). This is easier for countries with strong balance-of-payment positions, such as Japan (or for the Socialist countries seeking to develop new markets), than for the United States with its growing balance-of-payment deficit. U.S. sellers are either not in a position or reluctant to follow such practices.

Entry into Co-production Arrangements. This is a significant trend within Europe. One example is the British-German-Italian consortium building the Multiole Combat Aircraft. Such an arrangement enlarges the "home" market and enhances competitiveness in the export field, but it is also beset with institutional and political impediments (nationalist protectionism, sectional interests, inefficiencies of multiple managements, etc.). Its long-run potential should be viewed with some skepticism. Nevertheless, the readiness of some European suppliers (such as Aermacchi of Italy and Vosper Thornycroft of Britain) to agree to local assembly and to apply co-production principles to their Latin American sales may give them a key advantage in dealing with such countries as Argentina and Brazil.

With respect to economic appeal, accurate comparisons are extremely difficult to draw. From the evidence at hand, however, it appears that the financial terms on which U.S. weapons are sold in Latin America under FMS (when that system is available) are broadly comparable to those offered by European countries. Congressional ceilings aside, the credit terms that can be offered and the mixed government-private financing arrangements that can be worked out do not appear significantly inferior to those offered by, say, Britain or France—assertions to the contrary by some U.S. industry associations notwithstanding.

U.S. FOREIGN MILITARY SALES CASH SALES
AND CREDIT FINANCING

While the FMS system of cash sales and credit financing is often criticized for being excessively restrictive, inadequately funded, complex, and cumbersome, on closer inspection the system appears to be surprisingly flexible and competitive. Its
competitiveness is attested to by the sharply rising total sales that the system has permitted over the past several years, from about $3 billion in FY 1969 to about $3.4 billion in FY 1972 (see Table 6). Preliminary indications point to a record level of almost $4 billion in FY 1973. Its flexibility is demonstrated by the success the system has achieved in mobilizing the credit resources of the private sector. Government-guaranteed private financing increased by almost 600 percent, from $55 million in FY 1969 to $320 million in FY 1972 (see Table 7). The inadequacy in the FMS system is not overall, but in the special restrictions and limitations that apply to one region: Latin America.

The extent to which the system discriminates against Latin America is in large measure a function of the special $100 million Latin American ceiling, whose application is described in detail in Appendix A. Unlike the worldwide aggregate FMS credit "ceiling" inherent in the congressional FMS authorization, the special Latin American FMS ceiling applies not merely to credit sales, but to cash sales, MAP grant aid materiel, and ship loans as well, covering not only the acquisition of a major end-item but also all follow-on support. Only purely commercial sales and military training costs are exempted. The consequence is that an arbitrary and very binding limit is imposed on Latin American governments who seek to avail themselves of U.S. government services for the procurement of military equipments that are relatively freely available to other governments. There can be no question but that the ceiling as such, quite apart from its politically deleterious impact on U.S.-Latin American relations, has acted as a damper on the level of arms transfers from the United States to Latin America.

In addition to the ceiling, there are at least four congressional restrictions on sales and/or credit that are implicitly aimed at, or impinge most heavily upon, Latin America.

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<tbody>
<tr>
<td>Total sales</td>
<td>1970</td>
<td>1371</td>
<td>2102</td>
<td>2864</td>
<td>3400</td>
</tr>
<tr>
<td>Cash sales</td>
<td>1464</td>
<td>1015</td>
<td>1115</td>
<td>1982</td>
<td>2560</td>
</tr>
<tr>
<td>Credit sales</td>
<td>506</td>
<td>356</td>
<td>987</td>
<td>882</td>
<td>840</td>
</tr>
<tr>
<td>Credit as % of total sales</td>
<td>26</td>
<td>26</td>
<td>47</td>
<td>31</td>
<td>25</td>
</tr>
</tbody>
</table>


Based on FY 1972 requested authorization of $582 million and requested appropriation of $510 million.

Based on FY 1972 actual authorization of $550 million and actual appropriation of $400 million.
Table 7
SOURCES OF MILITARY EXPORT CREDIT
(\$ million)

<table>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Anticipated Program(^a)</td>
</tr>
<tr>
<td>Total credit</td>
<td>506</td>
<td>356</td>
<td>987</td>
<td>882</td>
</tr>
<tr>
<td>Eximbank</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(to developed countries)</td>
<td>225</td>
<td>286</td>
<td>253</td>
<td>300</td>
</tr>
<tr>
<td>DoD Direct</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(to less developed countries)</td>
<td>226</td>
<td>70</td>
<td>688</td>
<td>486</td>
</tr>
<tr>
<td>Private</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(DoD guaranteed)</td>
<td>55</td>
<td>---</td>
<td>46</td>
<td>96</td>
</tr>
<tr>
<td>Private (Eximbank guaranteed)</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>(70)(^c)</td>
</tr>
<tr>
<td>Total private</td>
<td>55</td>
<td>---</td>
<td>46</td>
<td>166</td>
</tr>
<tr>
<td>Total FMS credit program</td>
<td>281</td>
<td>70</td>
<td>734</td>
<td>582</td>
</tr>
<tr>
<td>authorized</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total FMS appropriated funds</td>
<td>240</td>
<td>70</td>
<td>699</td>
<td>510</td>
</tr>
</tbody>
</table>


\(^a\)Based on FY 1972 requested authorization of $582 million and requested appropriation of $510 million.

\(^b\)Based on FY 1972 actual authorization of $550 million and actual appropriation of $400 million.

\(^c\)Not additive; already included in Eximbank credit total shown above.

American countries. The principal legislative restrictions on arms transfers and military relationships with Latin America are listed in Appendix A. As amended, there are abstracted below from the indicated sections of the FMS Act:

1. **Arming Dictators**
   Sales and guarantees shall not be approved where they would have the effect of arming military dictators who are denying the growth of fundamental rights or social progress to their own people (Section 1).

2. **Seizing Fishing Vessels**
   No defense articles or services shall be sold by the United States to any country which seizes or takes into custody, or fines an American fishing vessel engaged in fishing more than twelve miles from the coast of that country (Section 3b).

3. **Sophisticated Weapons**
   No funds authorized under the FMS Act shall be used to guarantee, or
extend credit, or participate in an extension of credit in connection with any sale of sophisticated weapon systems, such as missile systems and jet aircraft for military purposes, to any underdeveloped country (other than seven specifically exempted) unless the President determines that such financing is important to the national security of the United States and reports within thirty days each such determination of the Congress (Section 4). The seven countries exempted are Greece, Turkey, Iran, Israel, the Republic of China, the Republic of The Philippines and Korea.

4. *Unnecessary Military Expenditures*

No sale shall be made to an economically less developed country that is diverting development assistance or resources furnished by the United States to military expenditures, or diverting its own resources to unnecessary military expenditures to a degree which materially interferes with its development, until the President is assured that such diversion shall no longer take place (Section 35a).

The cumulative impact on Latin America of the ceilings and restrictions, though measurable in "lost sales" or in "Third Country inroads," is felt most severely in the political resentment they continue to engender. Also, since they are so pointedly aimed at the Latin American region, they tend to aggravate the propensity of the Executive branch to treat Latin America as a region, rather than to respond to situations, needs, and requests on an individual country basis. The "regional" perspective is already deeply imbedded in the heavily geocentric focus of such planning instruments as the Joint Strategy Objective Plan (JSOP), and MAP statements of objectives, all of which view Latin America predominantly in terms of U.S. regional interests. The ceiling greatly adds to this bias by forcing the system to engage in a futile exercise of "regional balancing," an arbitrary allocation among countries, of scarce, available FMS resources. The workings of the FMS system with respect to Latin America are discussed in Appendix B.

The political liabilities created by these restrictions have led some observers to argue that the United States would be better off if the Defense Department got out of the business of selling arms altogether, and if some less politicized, more commercially-oriented instrument, such as the Export-Import (Ex-Im) Bank were to conduct these transactions. The suggestion, however, though perhaps abstractly desirable, does not seem practicable for a number of reasons:

1. The FMS system offers some unique benefits to the purchaser that cannot readily be duplicated by another institution. Perhaps the most important of these is access to the U.S. military logistics system with its enormous monopsonistic (single purchaser) power, its high standards of integrity and technical performance, and its ability to provide reliable, relatively low-cost follow-on support. The continuing utilization of the FMS system even by countries which have not recently purchased major U.S. end-items.

*Note the fundamental difference between attempting to explicitly "balance" grant assistance, which is (when available) directly subject to U.S. internal plans, and sales credits, which depend also on external demand. Credit amounts can still be "balanced," of course, but to do so on a yearly basis within a limited ceiling is virtually to force nonresponsiveness to major requests from any one country, out of a fear that such a sale will "use up" and thus "unbalance" available credit for the region.*
suggest that it is probably no exaggeration to say that, other things equal, foreign purchasers of military equipment would much prefer to rely on this logistics system than to turn to any other source. This system also permits U.S. commercial suppliers to offer much more advantageous package arrangements than would be possible under any direct commercial sale. For example, Northrop in selling the F-5 or Cessna the A-37 can provide a supply of engines, a package of avionics equipment, and other ancillaries at much lower cost to the purchaser by utilizing the USAF logistics system than if these items were ordered directly from manufacturers. Pilot-training under FMS may utilize USAF training facilities at Williams Air Force Base and elsewhere—training which could otherwise be obtained only at very high cost.

2. To hope the Export-Import Bank will play a major role in the financing of military sales is unrealistic. Its congressional mandate to devote its resources to nonmilitary exports is clear. The FMS Act (Section 32) specifically limits the Bank's authority to financing military sales to developed countries, as defined in Treasury's interest equalization tax regulations. Even if Treasury were to reclassify some countries, the Bank's own preferred criteria of credit worthiness and credit productivity would almost certainly rule out any country in Latin America for military credits, even Mexico and Brazil. Moreover, the Bank's management vehemently opposes any expansion of its military-export-financing role as being subversive of its longer-term institutional interests. It strongly believes that U.S. export trade overall would be better served if the Bank shied away from arms financing.

3. No readily available substitute exists for the kinds of governmental credit assistance available under the FMS system, and without such assistance, U.S. suppliers would be at a severe competitive disadvantage in comparison with European and other suppliers, which are all able to offer governmentally subsidized credit terms of one form or another. Complete and accurate comparisons among effective credit terms offered by various countries are impossible to make, even where actual contract terms on specific sales are known. Concessions, discounts, barter arrangements, under-the-table payments, and other "sweeteners" outside of the actual sales contracts are resorted to in such profusion that the real terms on which a sale is consummated are rarely known. However, from the limited evidence at hand, it appears that the credit terms (interest rates, maturities, conditions, and fees) that can be offered under present cooperative arrangements among FMS, Treasury and the private banking system are quite adequately competitive with those offered by third countries. Especially within the past year or two, more and more imaginative and attractive "mixed packages" have been worked out, combining relatively low-interest, longer maturity DoD credit with guaranteed private credit at somewhat higher interest and

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42 The Foreign Military Sales Program as it Pertains to Latin America is the title of an excellent study by Aristides Mascarenhas (Colonel, Brazilian Air Force) and Anthony Suso (Lt. Col., U.S. Army), especially useful for its treatment of air force utilization and procurement patterns. See Report SLSR-16-71A, a thesis presented to the faculty of the School of Systems and Logistics of the Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio, February 1970.
shorter maturities. In addition, Treasury began in FY 1972 to "lend its good offices" to advertise for competitive bidding for credit by private financial institutions, so as to secure for purchasing countries the most advantageous credit terms and conditions. The first such Treasury invitation to bid resulted in a $25 million private loan to Taiwan at a 7-1/4 percent average fixed-interest rate with repayments over 9 years, including a 2-year moratorium on principal repayment.

In short, the FMS system is now quite capable of providing credit on competitive terms and of effectively mobilizing the financial resources of the private sector. To repeat, the principal problem is not one of an ineffective overall system, but one of an inequitably constraining, politically offensive set of restrictions aimed singularly at Latin America.

There are some signs that these restrictions may be eased: (1) Congress is considering an increase in the ceiling to $150 million with the 50 percent waiver clause, thus raising the ceiling to a possible $225 million. (2) The House appears willing to raise the ceiling further by exempting cash sales from the ceiling. The Senate, however, has not approved such an exemption, and the matter must be settled in conference. These are straws in the wind. To repair the political damage already done, however, will require a far more drastic sweeping away of the restrictionist legacy, because the credit ceilings merely reinforce other restrictions on sales.

PROSPECTS AND ALTERNATIVES FOR THE FUTURE

Excepting unlikely international agreements, European and other non-U.S. suppliers will continue to offer advanced weapon systems to the Latin American militaries. Barring major disappointments with European equipment in Latin America, and changes in U.S. government policies and industrial practices, U.S. producers of military equipment will remain less competitive in many categories, because of cost, design, and delivery problems that affect conventional weapons—new ships, submarines, and tanks being major examples. In other words, the continuation of present policies by all parties will mean a continuation of recent trends against U.S. military suppliers.

In the long run, the continued presence of U.S.-Latin American tensions over arms transfers may facilitate activities by powers other than Europe and Canada, which have been the chief beneficiaries of recent patterns. Japan's growing industrial potential and links to Brazil, the countries of South America's Pacific Coast, and Mexico give that nation a potential that seems likely in the near future to be limited to naval craft, but which could later extend into aerospace activities as well. The Soviet Union, which has supplied weapons in great quantity to Cuba, is still hindered by political considerations, including low receptivity among Latin American governments. But the recent expansion of Soviet diplomatic and commercial activities probably foreshadows a change in politico-military climates as well. The suitability to Latin American needs of Soviet weaponry, like that of the United States, is debatable; and unlike most U.S. equipment, there is also some question over its quality. But some Soviet aircraft (the MIG combat series as well as heavy transport helicopters) are already both competitive and attractive, especially if offered on
concessionary terms. There can be no doubt that Soviet arms could easily become a factor in politically polarized situations, should the country in question and the Soviets so desire. Even aside from possible polarizations, current patterns of "normalization" of relations with the Soviet Union in an increasingly multipolar environment may in the longer run place the Soviet Union in a supplier position comparable to that of other industrial countries. The possibility that the People's Republic of China could enter the Latin American arms market by the 1980s can also not be ruled out.

Even without immediately considering the significance of such developments, it does appear that U.S. policies could have a significant impact, not only on the relative position of the United States, but also on the opportunities open to third powers. A central idea that emerges from the preceding discussions, and that recommends consideration of alternative policies, is that there are important political and occasional economic benefits to be gained from increased U.S. responsiveness to Latin American weapon needs. Certainly the policies of the 1960s have produced political costs to the United States that greatly surpass any intended economic or political benefits to the Latin Americans.

Ironically, future U.S. responsiveness can perhaps best be improved in the short run by an attempt to clear the legacies of the past: that is, by ending the promotional as well as the restrictionist aspects of current U.S. arms transfer policies in the interest of seeking a less politicized and more competitive market system. The major option available to limit the promotion of U.S. weapons is the termination of grant materiel assistance, a change that is already under way. This might in turn lead to an environment in which the termination of the congressional restrictions might also be feasible. To further improve U.S. competitiveness and obtain attendant political benefits, however, the replacement of the FMS system does not seem advisable; rather the provision of competitive credit terms for sales through the FMS system, certainly possible with fewer restrictions, appears to be the most important alternative. Finally, the design and marketing of more equipment that is suitable to the Latin American environments would also substantially improve the U.S. position as a supplier.

Before considering any such alternatives in detail, however, we need to relate arms transfers more specifically to U.S. national interests toward Latin America. How do the arms transfer issues relate to other U.S. interests? Might alternative policies serve those interests better? Why is it important for the United States to be, or not to be, a significant arms supplier to Latin America? What difference do the activities of third countries, even the Soviet Union, make to us?
V. ARMS TRANSFERS AND U.S. INTERESTS: BACKGROUNDS TO POLICY

The following paragraphs review some commonly advanced propositions concerning relationships between arms transfers and U.S. interests. To avoid repetition of material treated previously, the discussion is brief and is occasionally limited to references to other sections of this study.

SECURITY INTERESTS

"Hemispheric Defense," Peacekeeping, and Standardization

"Hemispheric defense" is the most tradition-blessed basis for U.S.-Latin American security cooperation. Nonetheless, the lowered level of commonly perceived external threats and the decline of the cold war have so weakened the hemispheric defense rationale that it no longer serves as a convincing basis for hemispheric cooperation, much less for U.S. arms assistance to Latin America on any generalized basis.

In the absence of agreed-upon threats, U.S. and Latin American objectives may be expected to diverge frequently. Should defense of the hemisphere from hostile external penetration once again become an issue, cooperation would in most cases be possible, and would in fact be facilitated by the growth of Latin American self-reliance in military as in other areas. But the diversities of Latin American inventories and procurement patterns demonstrate that standardization, long considered essential to joint military action, does not now exist and is unlikely to become feasible in any foreseeable future. No U.S. arms policy is likely to corner the market; and since only limited resources are available in Latin America for military purposes, the current highly diversified inventories will be kept on-line as long as possible. In addition, future Latin American military procurement policies will continue to be designed to meet Latin American defense objectives rather than U.S. goals.

Certainly the goal of an inter-American peace force made up of military units from several nations has never been realized on more than an ad hoc basis. As interests continue to remain ill-defined, divergent, and intensely nationalistic, such
a force seems less likely than ever today, although informal consultations and exchanges of information may continue in certain fields, such as ASW surveillance.

From a military point of view, therefore, Latin American military forces should be seen, and may be expected to behave, less as potentially dependent elements of a U.S. military command structure, and more as autonomous forces which may sometimes contribute to some U.S. objectives through independent action when interests coincide. Some of these objectives are discussed below; here the point is that the diversity of interests and national characteristics are such as to rule out any "standardization" of materiel, doctrine, organization, or activities under U.S. leadership.

Internal Security

During the 1960s, Latin American governments demonstrated considerable capacity for dealing with internal security problems, with or without military aid from the United States. Revolutionary insurgency and terrorism are expected to pose substantially less threat during the 1970s than in the 1960s. To the extent that Latin American countries continue to have internal security problems, they seem likely to continue to be able to resolve them largely on their own, so long as appropriate light and intermediate weapons and communication and transportation systems are available through internal production or external purchase.

Weapon purchases and narrowly "military" tactics are, in any event, only marginally important to internal security. "Hardening" the authority structure by improving political and administrative effectiveness; deterring violence by increasing governmental responsiveness to socioeconomic problems while projecting an image of military power; strengthening institutional stability by raising military morale—these are far more important ingredients.44

Emergency Cooperation

No immediate threats to U.S. security originate in Latin America, and no obvious threats to Latin American security currently require combined military operations. Nonetheless, the United States, as the major power linked to Latin America, needs to retain a capacity and an ambiance for cooperative military operations in case of emergency. Just what this might entail is not obvious. The precise nature of emergencies is difficult to define in advance, and one must guard against "emergency preparedness" that is either excessively costly or provocative. In addition, history rarely repeats itself. And even if nuclear missiles were surreptitiously reintroduced into Cuba, for example, most appropriate U.S. responses would of necessity involve the Soviet Union more than Latin America or perhaps even Cuba.

Though these factors all weigh against large U.S. military programs in Latin America, the diversity of interests and lack of standardization in either weapons or

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doctrine suggest a growing need for precautionary measures to ensure exchanges of training and technical information sufficient to facilitate working relationships and to avoid major misunderstandings or miscalculations. Access, that is, communication and cooperation among security organizations, is critically important both to the identification of potential problems and to the choice and execution of appropriate action, whether the issue be control of drugs, the safety of diplomats, disaster relief, or the deterrence of military conflicts. The collection and exchange of information may be influenced, if not by arms transfers as such, then certainly by the atmosphere created by them. Conversely, a U.S. policy that appears in Latin American eyes to be unresponsive may damage the receptivity necessary to any emergency collaboration.

ECONOMIC INTERESTS

U.S. Industries and Balance of Payments

The arms trade is conducted for many reasons. Among them, economic interests are sometimes significant, since arms exports can return substantial material benefits. Three kinds are potentially important: (1) benefits to the balance of payments; (2) benefits to the maintenance of levels of employment and regional economic activity; and (3) benefits in expanding the size of the market for domestic industries.

How important are these benefits to the United States? U.S. arms exports to the rest of the world are a substantial portion of the world arms trade but are not an impressive portion of total U.S. exports. Over the past several years U.S. arms exports have fluctuated between $1 billion and $2 billion per annum, which constitutes less than 4 percent of total U.S. merchandise exports; and these exports in turn involve less than 4 percent of private employment in the United States. In the most recent years, FY 1972 and FY 1973, they rose to $3.4 and nearly $4 billion respectively; whether they will be maintained at this level (still only about half as large as the relative share of arms in French exports) remains to be seen.

If overall U.S. arms exports may be said to have a modest impact when viewed in terms of the U.S. economy as a whole, then the role of those U.S. arms exports going to Latin America is truly miniscule. Over the entire 5-year period 1968-1972 they amounted to only slightly more than $300 million, or an average of $60 million per year. These amounts could be increased by a more determinedly promotional posture, but even so, the Latin American arms market is not impressive, even if it could be captured in its entirety.

Overall, however, the U.S. government has felt itself under some pressure from industry groups, and from certain states and communities heavily dependent on defense production, to relax restrictions on military sales in order to reduce domestic U.S. economic dislocations, ease unemployment, and benefit the balance of payments. As noted in our earlier discussion of FMS, the relaxation has applied least of all to the Latin American arms market. Several specific major sales, from tanks to Argentina to jet planes to Peru and Ecuador, have clearly been lost over the past several years for no reason other than self-imposed U.S. restraint, whether executive or congressional. A larger number of potential sales have undoubtedly never
been seriously discussed because of the expectation of U.S. governmental opposition. Considering all the factors at work inducing Latin American countries to purchase from Europe rather than from the United States, however, the claim that the United States has "lost" several hundred million dollars per year in military sales because of restrictions is both exaggerated (identifiable "lost sales" have probably been on the order of fifty million per year) and a case of misplaced emphasis. The complicated sensitivities affecting arms procurement in Latin America have made restrictions more costly in political than in economic terms. But there have undeniably been economic costs as well. How are we to evaluate them?

Since the favorableness or unfavorableness of a nation's balance of trade is very small in relation to the total value of goods exchanged, very small shifts in some of the items making up that balance can have a large impact on the net balance. Where cash rather than credit sales are concerned, the economy will be even more favorably affected. Since weapons tend to be high-value items and tend to have a high domestic value-added content, armaments are frequently looked upon as highly desirable exports for the purpose of increasing foreign exchange earnings and bolstering national accounts. The balance-of-payment consideration has been a major stimulant to European arms exports; it was also a powerful factor in motivating Secretary McNamara's original arms export drive aimed at Europe in the 1960s. Its validity as a public policy consideration driving U.S. arms sales to Latin America, however, is questionable. A doubling or even tripling of current sales to Latin America certainly the most that could be expected if restrictions were lifted without promotional campaigns and concessional subsidies that would cancel out many of the economic benefits), would bring military sales to Latin America to about five percent of U.S. foreign military sales. The national economic consequences of such a change for the United States are not impressive.

Military transactions, however, may sometimes serve as the carrot for other trade benefits. Their significance is thus increased to the extent that they serve to stimulate related commercial transactions. Sales of French Mirage planes to Brazil, for instance, probably contributed to the purchase of French air-traffic-control equipment for the expanding Brazilian aerospace system. Sales of military air transports or helicopters may similarly facilitate sales of their commercial counterparts, particularly in Latin America, where military air forces undertake important non-military activities. In this sense, the overall U.S. economic position in Latin America has probably suffered from European military sales. The extent to which this has happened, given all the variables involved, is currently impossible to determine.

Even so, to say that what has recently been spent in Europe would have been spent in the United States, had it not been for U.S. restrictions, is only marginally true. Some sales have been lost, particularly of aircraft. Yet Europe is increasingly attractive on its own competitive merits as a supplier. Moreover, for the Latin Americans quite often there is little choice: given the types of equipment desired, the terms affordable, and the arrangements offered, they must often buy from a third source or not buy at all. The central consequence for the United States is political rather than economic: when a purchase is made elsewhere in the face of U.S. efforts to prevent it, the result is political ill-will toward the United States, and a potential for ancillary economic relations with the alternate supplier that extends beyond the immediate transaction.

Generally speaking, therefore, restrictive U.S. military sales policies have con-
tributed, sometimes decisively, to the mix of new attitudes which have gone into the current redefinitions of Latin America's domestic and international orientations. There can be little doubt, for example, that U.S. unresponsiveness in the military area has affected Latin American judgments about U.S. responsiveness in other areas, particularly where these judgments are made by governments headed by military men who have had frustrating encounters with the United States over arms sales. Argentina's Plan Europa, designed to focus military procurement in Europe as a means of developing greater self-sufficiency and independence from the United States, originated in anger over U.S. cancellation of tank deliveries following the 1966 Argentine coup.

U.S. Foreign Investments

Military technology and arms transfers are intimately related to the recipient's general development processes and to his foreign relations. The fact that military sales can have an important impact on the general atmosphere of inter-American relations and on the political attitudes with which Latin American governments approach economic dealings with the United States may also have important consequences for U.S. investors interested in Latin America.

New forms of commercial relations, in which direct private investment is subject to increasingly strict governmental regulation, are characteristic of Latin America today. In the future, the willingness of U.S. firms to enter into co-production arrangements may become a prerequisite for major military sales contracts with the more advanced Latin American countries. Although an increasing amount of the final product would ultimately be assembled or produced outside the United States, the development of such arrangements could offset difficulties in other areas. Responsive and flexible U.S. military sales policies could thus contribute to the restoration of an atmosphere of confidence toward U.S. business.

Economic Development

Some relationships between arms policies and this interest in Latin America were reviewed in Sec. III, pp. 32ff. The conclusion reached was that local defense expenditures, and thus by extension U.S. arms transfer policies, have little significant detrimental effect on the growth of the civilian sectors of the economy, except when a substantial proportion of the budget is allocated for the acquisition of costly, high-technology weaponry whose operation has little spinoff for the development of civilian skills and production. No such cases are to be found in Latin America.

POLITICAL INTERESTS

Avoidance of Regional Conflicts

It is frequently argued that U.S. predominance in arms transfers would lead to such a degree of Latin American dependence that the United States could exert
indirect pressures for arms control and conflict limitation. In particular, the United States could influence overall force structures and develop significant leverage for preventing or limiting local conflicts through its capacity to deny supplies to the belligerents. This argument, however, would be hard to sustain even if the United States were in a monopoly position, which it is not. The presence of alternative sources of supply, increasing self-sufficiency in munitions, and the absence of regional standardization make this argument rather illusory in practice. Furthermore, given local autonomy in the decision to initiate conflict, and the unlikelihood that conflicts once engaged will be long sustained even with unimpeded access to external supplies, supply dependency is unlikely to have much effect on the outcome.

The most important "arms-control" constraint on military activities is the fact that the military impact of arms is determined primarily by their potential use, that is, by their operational effectiveness and combat readiness, rather than by how "modern-looking" or "sophisticated" they are. Thus the operational factors that effectively limit military capabilities and the potential for armed conflict in Latin America are the weak technological bases and logistic systems, and the limited financial resources typically available in the region for preparing and maintaining combat-effective military forces. These internal constraints on weapon utilization serve as local institutional "controls" on armed conflict. Moreover, these internal constraints remain in effect whether a local military buys from one, two, or a diversity of sources.\(^4\)

From a more political standpoint, a U.S. policy of selective transfers—making arms available to some countries, but denying them to others—might exacerbate regional rivalries and political differences within Latin America. So long as potential tensions remain relatively low (and operational constraints high) as at present, however, a generalized policy of sales to interested countries seems likely to run few risks in this regard.

"Preemption" of Third-Power Influence

"Influence," especially in general terms, is a strategic concept difficult to relate to any particular set of transactions or activities. "Preemption of third-power influence," is a particularly misleading concept. The United States does not have political predominance to lose, nor has Europe achieved predominance through increased military sales to Latin America. No attainable policy could in any sense achieve U.S. predominance as a weapon supplier to Latin America. Even as a tactical matter, the preemption of third-power sales would depend to some extent on a prior atmosphere of military cooperation and open communication—precisely what has been badly strained in the course of the past decade by the restrictionist legacy. And if it could be achieved, U.S. predominance might actually damage, rather than improve, U.S. security and political interests by over-identifying governments with the United States, thus making them more vulnerable to subversion, and possibly increasing regional tension. As with most other arguments in the arms transfer field, much depends on the general context of the transaction and the specific alternatives at hand.

\(^4\) Further discussion of the so-called "arms race" in Latin America appears above on p. 25ff.
Avoidance of a situation in which potentially hostile Latin American countries are each supported by different, and mutually antagonistic outside powers, would clearly be desirable. Broadly responsive U.S. transfer policies that favored no single country or group of countries might also indirectly limit the intrusion into Latin America of military advisors from powers outside the hemisphere; hence, this might also tend to limit somewhat the potential transposition of major-power conflicts into the region.

**Maintenance of Constructive Political Relations**

The varied facets of a process of arms transfer can significantly affect the U.S. ability to relate to individual Latin American countries politically, economically, and psychologically. Restrictive attitudes toward arms transfers have fostered, perhaps more than any other single element, the deterioration of U.S.-Latin American military relationships during the past decade. That these attitudes have in some cases the force of law in the form of congressionally initiated restrictions has not made them more palatable; indeed, they have facilitated significantly the rise of political nationalism and the resentment of U.S. paternalism and indifference. Latin American military planners now frequently begin with the assumption that they can no longer count on U.S. cooperation.

The central importance of military leaders and institutions in Latin American politics suggests that it is important for the United States to maintain constructive relationships with them. These relations need not, and for ideological and historical reasons often cannot, be close. But they should certainly not be antagonistic. Although military sales do not confer direct "influence," they do communicate an interest, be it an implicit commitment or a symbolic gesture, to assure the other party of willingness to make an effort at developing a relationship.

Since arms transfers require formal governmental sanction, any transfer implies some degree of commitment to (approbation of, support for) an established government. Denials of arms sales have frequently been used by the U.S. government to demonstrate displeasure with particular governments—despite the presumption of U.S. military alliance with Latin America embodied in the Rio Pact. The difficulty with this procedure is that it is rarely effective and that it affronts local concepts of sovereignty and national dignity, even when the desired purpose (e.g., "defense of democracy") is unobjectionable. Given the wide availability of most categories of equipment, except for unusual (and hence in Latin America marginal) high-technology items, unilateral denials are unlikely to have conclusive effects, even on the availability of weapons.

In the increasingly multipolar world environment, arms purchases are being viewed in Latin America more and more as essentially commercial transactions, largely devoid of direct political connotations, so long as no one power is permitted an exclusive supplier role. In situations where other forms of relationships are strained, however, arms transfers can serve the useful political purposes of preventing tensions from spilling over into the security field, and of maintaining some lines of communication even in the presence of other bilateral differences.
Stable Democratization

The relationship between this interest and arms transfer policies was reviewed in Sec. III, pp. 30ff. The conclusion was reached that, in general, local arms acquisition patterns, and thus by extension U.S. transfer policies, seemed quite unrelated to trends toward or against democratic development.

SUMMARY COMMENT

On balance, arms transfer policies involve problems that extend well beyond the simple issue of international competition for foreign markets, and affect a much broader realm of U.S. interests and objectives. Over the past decade, restrictive practices have incurred political costs and damaged cooperative patterns of mutual communication, understanding, and respect. A more open U.S. arms transfer policy would improve relations between the United States and the major Latin American countries, but would probably have little measurable effect on problems that are subject primarily to local conditions.

Partly because of the overriding importance of political dimensions, arms transfer policies are difficult to relate effectively to some of the aims often associated with them, such as promoting hemispheric defense, regional peacekeeping, internal security, or standardization. Aggregate arms transfer patterns, for example, appear to be quite unrelated to overall processes of Latin American military participation in politics, and probably are of but marginal value in preventing regional conflicts and limiting the intrusion of third powers into the hemisphere.

Less restrictive policies would probably stimulate some improvement in the U.S. balance-of-payment position, in defense and commercial production, in employment levels, and perhaps even in some opportunities for U.S. investment and co-production in Latin America, but the general impact on the U.S. economy would be small. In addition, unless a Latin American country were unexpectedly to expend large proportions of its budget on the acquisition of advanced and costly weaponry from the United States, projected purchases are unlikely to have a detrimental impact on the prospects for growth in the civilian sectors of the local economies. It is difficult to escape the conclusion that relations have been strained over issues which, from the standpoint of the United States, are generally inconsequential.
VI. CONCLUSION: TOWARD A POLICY OF MUTUAL RESPECT

During the 1960s U.S. policies of arms transfer toward Latin America combined restrictionist and promotional measures into a highly politicized approach. Although the most salient restrictions were entrenched in congressional legislation, the executive branch also sought independently to prevent the acquisition of advanced weaponry. Whatever promotionism existed was conveyed, generally implicitly, by the very existence of the Military Assistance Program and the advisory system. Overall, there appeared to be the following principal objectives:

- maintenance of the United States as the predominant military influence in Latin America;
- restraint of local military expenditures, especially with regard to the acquisition of costly advanced weaponry, on the theory they burdened economic development;
- inhibition of military participation in politics;
- support for internal security missions against leftist insurgency;
- some leverage for the settlement of intergovernmental disputes over non-military as well as military issues;
- gradual military modernization under U.S. auspices;
- the prevention of local military conflicts; and
- the organization of regional military cooperation.

This is not meant to be a formal listing, nor one with which any particular official document would agree. Nevertheless, it appears to summarize the diverse, and sometimes contradictory, objectives toward which official U.S. participants in arms transfers were striving.

Despite well-meaning intentions, established policies have proven largely ineffective—if they are to be measured by the attainment of these objectives. Of those mentioned, only gradual military modernization appears to have been successfully undertaken, and then only in certain areas of institutional professionalization, including technical and management training, and equipment operation—and even then not entirely under U.S. auspices. U.S. arms transfer policies appear to have had little effective relationship to the outcome of leftist insurgencies, the relative absence of local military engagements, the continuing military participation in politics, the prevalence of fishing and other nonmilitary disputes, the resistance to
regional military organization, and local military expenditures on weapon acquisitions. Indeed, in some cases U.S. refusal to sell certain weapons led to greater local expenditures for more expensive alternative foreign systems. Finally, and perhaps most importantly, even though the United States remains the most important external military influence in Latin America, in practice U.S. arms policies have damaged the bases for advancing constructive inter-American relations, psychologically by leading to considerable friction with several important countries, and materially by facilitating the prominent shift to European and Canadian suppliers.

In retrospect, the most serious difficulties for U.S. policies appear to have derived from a major, largely erroneous assumption; i.e., that Latin America is (even ought to be) so dependent upon the United States that its policies can control Latin American behavior. Though strong dependency relationships do indeed exist, this fundamental assumption was affected by four major qualifications that limit U.S. power and influence. First, in many matters domestic conditions have taken primacy over relations with the United States. An example is the defeat or containment of guerrilla insurgencies during the 1960s, which were determined essentially by domestic conditions and owed little to MAP activities. Second, with the growth of the European and other international economies, many Latin American countries have recently had reasonable alternative opportunities to dealing with the United States. This is exemplified by the arms purchased from Europe rather than the United States. Third, partly as an outgrowth of experiences with counterinsurgency and social change, the interests and objectives of the newer generations of military as well as other elites have coincided much less with those of the United States than was the case previously. The sense of a growing divergence of interests was reinforced in the late 1960s, when U.S. restrictiveness on arms sales was viewed by Latin American officers as an act of antipathy directed especially at them. Fourth, Latin America's institutional strength has grown rapidly in the last decade, providing governments with better bases for adopting independent initiatives while resisting traditional modes of influence from the United States.

Within this broad context, the particular forces of supply and demand for arms shaped transfer patterns that contradicted U.S. policies. Major factors affected the Latin American demand: the generational obsolescence or aging of local inventories, budgetary limitations on arms expenditures, new and old military doctrine requirements, the quest for institutional dignity through modernity despite technical and managerial obstacles, the desire for independent and flexible foreign policies, and the possibilities for indigenous production. These varied factors largely determined the current cycle of modest demands, focusing them on the acquisition of intermediate weapons, yet guaranteeing the purchase of some costly advanced weapons. Neither "resource diversion" nor military participation in politics were seen to have significant regular effects on arms demand patterns. On the supply side, the attractiveness of Europe as an alternative was greatly enhanced by the U.S. legislative restrictions, the comparative design suitability of European weapons and the vigorous sales efforts of European industrial and governmental agents, whose effectiveness was bolstered by the willingness to offer balance-of-payment offsets and to enter into local licensing and co-production arrangements.

These and related factors produced a shift away from U.S. arms in favor of European alternatives in almost all equipment categories and all the major countries of Latin America. Barring unlikely international or regional arms limitation agree-
ments, or a major surplus of used weapons from U.S. inventories, or major disappointments with recent European acquisitions, and barring changes in U.S. government policies and industrial practices, that trend is very likely to continue, and to create problems for political and military relations between the United States and Latin America, while also preventing some marginal economic gains for the U.S. economy.

These trends have seriously damaged the climate for constructive U.S. political relations with the Latin American governments and armed forces, and have limited the U.S. military's capacity to foster such relations. Yet the policy problem is further complicated by the fact that future U.S. arms transfer policies, whatever their content, will probably have but marginal impact on what happens to Latin American military participation in politics, resource allocation to economic development, the development of internal security and external defense missions, or the prospects for intra-regional conflicts, among other matters. The intractability of these problems to policy was, after all, a major source of our current dilemmas.

If recent, mainly restrictive policies have proven costly, it also appears that a policy reversal toward sales, for example, moving from a governmental to a purely commercial basis for sales is impractical. Sales cannot be undertaken on a purely commercial basis. There are three reasons for this. First, the international arms market is not commercial, but is heavily governmental in all countries. Second, the U.S. arms industry is closely tied to U.S. requirements and is not producing armaments suited to Latin American needs or capable of competing with European armaments in a large number of categories. Thirdly, as illustrated by the nuclear weapons example, some controls are unavoidable, and may sometimes even be desirable.

The search for criteria to regulate arms transfers contains many pitfalls. When their implementation requires information that is inherently unobtainable or non-comparable, even "objective" criteria frequently turn out to be quite fuzzy and subjective in practice. Latin American military procurement plans, specifics on third-country terms of sale, the reasons underlying a particular arms purchase, the nature of indirect economic inducements or "sweeteners"—all these and other essential items of intelligence are rarely ascertainable even after the event, let alone in advance. The danger of establishing numerous uncertain and immeasurable criteria is that "too many broths will spoil the cook," that is, that no clear guidance will emerge for decision.46

One major implication, since denials aimed explicitly at Latin America tend to be militarily ineffective and politically counterproductive, might be that U.S. policy should proceed on the assumption that only extraordinary circumstances would justify the rendering of a negative decision, but that the U.S. should not encourage sales and should adopt an approach that would place responsibility for arms purchases on Latin American governments. Integrating this insight with our prior findings, we reach the conclusion that, given present modest levels of demand, a principle of unrestricted but also unsubsidized military sales might be an acceptable basis for an alternative policy on arms transfers to Latin America.

This principle of unrestricted but unsubsidized military sales would require several steps to implement, including:

- the elimination of grant materiel assistance to those few countries still receiving it;
- the termination of those legislative restrictions aimed exclusively at Latin America; and
- the provision of sufficient governmental credit through the FMS system or a similar mechanism to ensure the international competitiveness of U.S. equipment.

These steps should be taken more or less simultaneously. For example, complete elimination of materiel assistance without also eliminating restrictions would merely reinforce perceptions of U.S. unresponsiveness and further alienate those Latin Americans desirous of maintaining cordial relations with the United States. Taken together, these steps would serve to diminish both the restrictive and promotional roles of the United States, and would enhance the U.S. government's capacity to meet Latin American demands on a basis commensurate with international competition. More significantly, these steps would better serve U.S. interests in political and military relations with the Latin American countries, while simultaneously providing some marginal economic benefits for the United States. The greatest gains would probably pertain to the general improvement of cooperative politico-military communications and contacts. Removing restrictions would help restore the United States to the political status of a respectable and cooperative partner if not ally. But removing restrictions would not suddenly lead to any massive burst of U.S. sales: the realities of Latin American demand and international supply patterns make it unlikely that even a policy that was flagrantly promotional in nature could easily restore the United States to a predominance in the Latin American arms market. Indeed, given the complexity of the issues and the multitude of actors involved, no one country or set of policies can probably do much more than prevent arms transfer problems from becoming sources of political and military friction. And that is what the "unrestricted but unsubsidized" principle is designed to achieve.

DETAILING SOME ISSUES

These general principles for an alternative approach to arms transfer policy call attention to many detailed but significant issues that remain unresolved (and beyond the scope of this report). In the first place, no country engages in completely unrestricted arms transfer policies; all countries discriminate to some extent. Nuclear weapons, and a few highly specialized arms, are closely guarded in particular. Moreover, it is common to discriminate in favor of allies that urgently require equipment in order to meet a shared threat. Furthermore, major suppliers may proceed cautiously toward recipients engaged in potentially destabilizing "arms races." For these and other reasons governments tend to make some armaments more available than others, and to some countries more than others, whatever their general policies. In the alternative policy orientation outlined in this conclusion,
with obvious exceptions such as nuclear weapons, U.S. armaments available to any foreign country would also ordinarily become available to all other countries. This would help avoid difficult situations, such as in the mid 1960s, of providing F-5s to Ethiopia while refusing to sell them to Brazil. Yet through the credit mechanism the United States would retain the capacity to make some weapons more available than others. Thus in some cases a weapon might be provided through the FMS credit system to a particular country, while another country might be required to make strictly commercial arrangements at a higher price on more costly terms. F-4 Phantoms, for example, might be sold only to Latin American countries prepared to pay the full commercial price, without government participation.

Second, some very significant credit issues remain to be settled. One important question is: what should become the balance between cash and credit terms? The softer the credit terms, the more competitive U.S. weapons become. Yet soft terms also entail costs. For the United States, credit sales would have less favorable balance-of-payment effects than would equivalent cash sales. Perhaps more importantly, soft credit terms undermine the "discipline of the marketplace" as it affects the recipient. Whenever political stability and institutional responsibility are weak, soft credit terms encourage incumbent government leaders to make expenditures that can easily be passed on to their successors, and thus such terms may facilitate excessive or unnecessary purchases. Another general credit issue is whether or not to give preference in the allocation of U.S. government credit or credit guarantees to arms transfer deals that will contribute to local development through an effect on local industrial production. Such a preferential approach, however, might penalize the weaker, poorer countries, which have the least capacity to turn military technology to industrial advantage.

And that raises a third type of issue: Should policy be region- or country-oriented? In the past, Latin America has been treated as a region, with an emphasis on the homogeneities rather than the differences among the more than twenty countries there. Does this still make sense? Or should policy differentiate between the more industrialized countries (Argentina, Brazil, Mexico), weak and dependent countries (the Caribbean, Central America, Bolivia, Paraguay, Uruguay), and a third group of intermediate countries (Chile, Colombia, Ecuador, Guatemala, Peru, Venezuela)? Should there be different credit and weapon policies for each group? Whatever the decision, of course, any differential policies would have to be applied with restraint. Considerations of national sovereignty, the Inter-American System, and regional harmony suggest that evenhandedness and nondiscriminating treatment among all countries may be particularly important in arms transfers.

BEYOND ARMS TRANSFERS

In order to conclude the analysis of arms transfer issues, it seems essential to point out that they comprise only one area of concern in what has become part of a much broader problem: the general bases for U.S.-Latin American military rela-

**Note**: Additional discussion of this important point appears in C. Wolf, Jr., J. Koehler, and A. Williams, *Indonesian Economic Issues and Options*, The Rand Corporation, R-1037, Santa Monica, California, August 1972, pp. 37-38.
tions. The United States and Latin America are currently faced with a crisis of confidence and credibility in their military relations. On the U.S. side, the "military assistance" approach characteristic of the past decade conveyed a strongly tutelary posture, paternalistically imposing U.S. conceptions of doctrines, missions, and armaments, both in the positive sense of what Latin America should do, and in the negative sense of attempting, through restrictions, to determine what Latin America should not do. As a result, Military Assistance Program administration has been bedeviled by heavy intrusions of U.S. domestic political and bureaucratic conflicts, and generally has not been shaped to Latin American needs, missions, and doctrines. On the Latin American side, dissatisfaction with MAP has combined with institutional development and a desire for lessened dependence on the United States to reinforce interest in European armaments. In turn, the fact that arms are readily available from other sources forecloses any unilateral attempt by the United States to control Latin American acquisitions, other than in certain, very limited, highly technical categories.

This crisis in political-military relations is complicated by the fact that both Latin America and the United States are undergoing a period of internal and international redefinition that makes it extremely attractive to postpone choice and merely tinker with those present arrangements that are obvious sources of friction. What seems called for, however, is a fresh reassessment of hemispheric relationships as a whole, with military relations, and within them arms transfers, subordinated to a full implementation of President Nixon's 1969 doctrine of the "Mature Partnership."

The need to ensure constructive political relations to advance security and other mutual interests makes some military relationships with Latin America desirable for the United States even in the absence of clear and immediate threats. From a Latin American viewpoint, military relations are also seen as part of constructive political relationships with the United States, and are further encouraged by the potential of arms transfers for facilitating the transfer of technology, and if at favorable terms, for limiting the costs of military modernization.

Both the United States and Latin America, however, have reason to restrain their military relationships and arms transfers. To begin with, there is common agreement that priorities for military defense in the Latin American region are low. While the United States is concerned with conflict environments elsewhere, and seeks to divert greater resources to its own domestic use, Latin America is fully caught up in its own national development processes in which military aspects are important but nonetheless secondary. In addition, from the U.S. viewpoint, there is a clear desire to avoid extremes, such as U.S. association with military dictatorships, regional conflicts, or unnecessary expenditures to military ends. Latin American states share the interest in minimizing conflicts and excessive expenditures, and are, in addition, somewhat leery of excessive dependence on the United States in sensitive national security matters.
REPLACING "ASSISTANCE" WITH A "CORRECT RELATIONS"
APPROACH

In the current environment, tinkering may alleviate some of the more immediate sources of conflict. It will not, however, promote new opportunities for the realization of U.S. interests, nor will it lead Latin America to reidentify its interests more closely with those of the United States.

The broad alternatives facing the United States, therefore, are not so much whether to eliminate a particular restriction on transfers of particular weapons, to streamline further the sales approval process, or to raise the allowable credit ceiling by another 50 or 100 percent, though such acts would undoubtedly help. They are more fundamentally whether or not to take Latin America seriously as a rapidly developing region with a growing national consciousness and an expanding industrial capacity, determined to find its own place in the world, preferably with the United States as a respectful ally and customer, but if necessary without it. Indeed, in many respects the key issue for the development of a "mature partnership" is mutual respect.

The various forces affecting military relationships suggest that an adequate point of departure for policy would be the establishment of generally correct relations on a technical military basis between the United States and Latin America. Such relations should be supportive of mutual interests, such as increased self-sufficiency and rational utilization of resources, but should not be politically close or involve U.S. subsidization of Latin American military activities.

In this environment, the assistance approach could be profitably replaced by a specific series of instruments designed to sustain correct relations. A "correct relations" approach might be developed along the following broad lines:

1. **Military representation** is essential to diplomacy, intelligence, and the coordination of other activities. The present advisory mission system, however, could be reoriented to provide a small interservice group acting as liaison on professional problems of management, organization, and training. Such a group would not engage directly in sales promotion, though it could facilitate sales contacts and discussions.

2. **Military training** facilitates transfer of technology and long-term communications. Training programs now under MAP could be retained within the context of a more generally revitalized technical, educational, and cultural-exchange program toward Latin America, based on professional criteria, and including military institutions.48

3. **Arms transfers**, inevitable in some form, will play an important role in the evolution of the relationship. Though modest in their involvement of U.S. interests, they are far from modest in their potential for creating friction. The United States, in other words, has little to gain (and perhaps something to lose) from aggressive policies of arms sales toward Latin America; but the United States can only create continuing troubles by following restrictive policies which seem to discriminate against Latin America. If a

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48 Some general considerations along these lines will be found in Luigi R. Einaudi, ed., Latin America in the 1970s, The Rand Corporation, R-1067-DOS, Santa Monica, California, December 1972, see "The Role of Governmental Exchange Programs," pp. 201-204.
mutually "respectful" arms transfer principle could be identified and communicated, the details would recede in importance. Sales, an instrument that may (if properly designed) encourage the discipline of the marketplace both as to the quantities of armaments acquired and their types, offer the best opportunity to "depoliticize" arms transfers, and encourage mutual restraint and respect.
Appendix A

PRINCIPAL LEGISLATIVE RESTRICTIONS AFFECTING
ARMS TRANSFERS AND MILITARY RELATIONS
AS OF 1972

NOTE: Asterisk denotes allowance for Presidential waiver.

A. In Foreign Assistance Act of 1971 (MAP authorization for FY 1972, PL 92-226):
   1. Sec 504a (Mundt Amendment). Limits materiel grant aid and overseas
      grant training to 40 countries worldwide.
   *2. Sec 504a (Conte Amendment). Prohibits grants of sophisticated weapon
      systems to underdeveloped countries.
   3. Sec 507a (Fulbright Amendment). Limits the value of defense articles
      furnished to Latin American countries under the FAA to $10 million.
   4. Sec 510 (Fulbright MAP Training Amendment). Limits foreign military
      students to be trained in the continental United States to equivalent
      number of civilians brought to United States the previous fiscal year.
   5. Sec 620e (Hickenlooper Amendment). Directs suspension of all assistance
      when U.S. property is expropriated and country has not taken appropriate
      remedial steps within six months.
   6. Sec 620a (Kuchel Amendment). Directs consideration of excluding FAA
      assistance to any country which seizes a U.S. fishing vessel in internation-
      al waters.
   7. Sec 620s (Combined Symington-Conte Amendment). Directs taking into
      account the amounts spent by a country for military purposes and acquisi-
      tion of sophisticated weapon systems before furnishing any assistance.
   *8. Sec 481 (Narcotic Drug Control). Directs that the President shall suspend
      economic and military assistance (including FMS) when he finds that a
      country has failed to take adequate steps to prevent narcotic drugs and
      other controlled substances produced or processed, in whole or in part, in
      such country, or transported through such country, from being sold ille-
      gally within the jurisdiction of such country to U.S. Government personnel
      or their dependents, or from entering the United States unlawfully. Such
      suspension shall continue until the President determines that the coun-
      try has taken adequate remedial steps.
9. Sec 511 (Arms Race Considerations). Directs that decisions to furnish (or sell, per similar amendment contained in the FMS Act) military assistance shall take into account whether such assistance will
(1) contribute to an arms race;
(2) increase the possibility of outbreak or escalation of conflict; or
(3) prejudice the development of bilateral or multilateral arms control arrangements.

10. Sec 512 (MILGP Reduction). Directs that the total number of U.S. military personnel assigned and detailed, as of 30 September 1971, to U.S. MAAGs, Missions, and other U.S. organizations performing activities similar to such groups and missions, shall be reduced by at least 15 percent by 30 September 1972, but every effort should be made to effect an aggregate reduction of 25 percent by 30 September 1972.

*11. Sec 514 (10% Deposit Requirement). Directs that no defense article be given and no grant of military assistance be made unless the country agrees
(1) to deposit in a special account established by the U.S. Government the following amounts of currency of that country:
   (a) in the case of any excess defense article to be given to that country, an amount equal to 10 percent of the fair value of the article, as determined by the Secretary of State, at the time the agreement to give the article to the country is made; and
   (b) in the case of a grant of military assistance to be made to that country, an amount equal to 10 percent of each such grant; and...

*12. Sec 620q (Loan Default). Directs that no assistance shall be furnished under this Act to any country which is in default, during a period in excess of 6 months, in payment to the United States of principal or interest on any loan made to such country under this Act, unless such country meets its obligations under the loan or unless the President determines that assistance to such country is in the national interest.

*13. Sec 653 (F.A. Allocation Changes). Directs that the U.S. Government shall not provide to a country or organization funds which exceed 10 percent of the amount of military grant assistance or security supporting assistance which the President notified Congress that the U.S. Government intended to provide that country or organization, unless the President determines it to be in the security interests of the United States.

B. In Foreign Military Sales Act for FY 1972 (FMSA):

*1. Sec 1 (Reuss Amendment). Disapproves all sales where they would have the effect of arming military dictators who are denying the growth of fundamental rights or social progress to their own people.

*2. Sec 3b (Pelly Amendment). Prohibits sales for 1 year to any country that seizes an American fishing vessel more than 12 miles from the country's coast.

*3. Sec 4 (Conte Amendment). Prohibits U.S. credit for sale of sophisticated weapon systems to any underdeveloped country (except certain forward-defense countries).

*4. Sec 33 (Fulbright Amendment). Limits all forms of military assistance to
Latin America (less training) to $100 million in each fiscal year, with a waiver limit of 50 percent of that ceiling.

5. **Sec 35 (Symington-like Provision).** Directs that when the President finds any less developed country diverting economic assistance or its own resources to unnecessary military expenditures it shall be ineligible for all further sales.

6. **Sec 8 MIMEX/SIMEX.** Establishes an annual ceiling of $185 million for the worldwide distribution of excess defense articles, which are to be valued at not less than 33-1/3 percent of acquisition cost; and requires that any amount given away above $185 million be subtracted from the funds available for grant military assistance.

C. In Fishermen's Protective Act:
   1. **Pelly Amendment.** Directs action as appropriate for recovery of amounts expended by the United States as a result of U.S. fishing vessel seizure, and deduction equivalent to unpaid U.S. claim from any assistance funds programmed for the current fiscal year.

D. In Certain Ship Loan Legislation:
   1. **Lausche Amendment.** Subjects new loan or extension agreements to condition that the agreement will be terminated if the President finds that a country has seized a U.S. fishing vessel in international waters.
Appendix B

PROCEDURES GOVERNING FOREIGN MILITARY SALES (FMS) TO LATIN AMERICA

FMS VERSUS COMMERCIAL SALES

A foreign military sale is a government-to-government transaction that can be made under cash or credit terms. A "commercial" sale, i.e., directly from a private U.S. firm to a foreign government, without any U.S. Government involvement (such as a DoD guarantee), is not considered a Foreign Military Sales transaction.

AUTHORIZATIONS VERSUS APPROPRIATIONS

In order for FMS credit to be extended, Congress must both authorize and appropriate the funds to be used for that purpose. The authorization is normally contained in the FMS Act, and the appropriations are normally made in a separate Appropriation Act.

The amount of credit authorized may be referred to as the "aggregate worldwide FMS credit ceiling." The term "aggregate" is used because it represents the worldwide ceiling for both kinds of FMS credit: direct credit or guaranteed credit.

The amount of credit appropriated is referred to as "New Obligation Authority" (NOA). This is because each fiscal year new authority to obligate funds for credit purposes must be legislated by Congress: any unused obligation authority from the preceding fiscal year is "lost" (returned to the Treasury).

CEILINGS

In this discussion of FMS, then, there are two "ceilings" that must be understood:

* Adapted from a position paper prepared in early 1972 by Lt. Commander Peter Troia, J-5, U.S. Southern Command.
1. the worldwide aggregate FMS credit ceiling; and
2. the $100 million Latin American ceiling (raised from $75 million beginning in FY 1972), with a 50-percent increase authorized if there is a Presidential Waiver approving such sales in the national interest.

As our primary concern is with the Latin American ceiling, we will consider it first, and in greater detail. The following transactions must be included under the $100 million Latin American ceiling:

1. Grant aid materiel
2. Ship loans (those that require congressional authorization, i.e., submarines, destroyers, and larger craft, in which case a hull value is assigned by the Chief of Naval Operations, U.S. Navy, e.g., $1 million, and charged against the Latin American ceiling)
3. FMS cash sales
4. FMS credit sales (both direct and guaranteed).

In other words, the worldwide aggregate ceiling is for limiting FMS credit only, whereas the Latin American ceiling limits all the transactions listed above, including the FMS credit.

For purposes of charging against the $100 million Latin American ceiling, all FMS is counted (cash and credit) but commercial sales are not. Another exception to the requirement for charge against the ceiling is made for all training, FMS or otherwise.

Turning now to the specifics of credit, just as the total amount of an FMS cash sale case is charged against the Latin American ceiling, so too is the total amount of FMS credit extended to a country in any year, regardless of how little of it is actually drawn down in that year. Thus, if a country signs a credit arrangement with the U.S. Government for $20 million, $20 million is charged against the Latin American ceiling (and the worldwide aggregate credit ceiling) and it matters not whether that credit was direct or DoD-guaranteed: both kinds are "FMS credit."

The following paragraphs illustrate two ways in which that $20 million FMS credit could have been extended: using (1) direct credit only, and (2) a mix of direct and guaranteed credit.

1. Using direct DoD credit: In this case, as DoD uses the funds appropriated to it for credit extension purposes (hereinafter referred to as NOA) as the entire basis for the loan, $20 million is obligated against that NOA appropriation. The results are these:
   a. The country has a $20 million credit line which it can use to establish FMS cases against, and makes principal and interest repayments to the U.S. Treasury in accordance with the repayment schedule in the credit agreement;
   b. $20 million is charged against the Latin American ceiling;
   c. $20 million is charged against the worldwide aggregate credit ceiling authorized by Congress. (For illustration purposes, that aggregate amount could be represented by the $582 million figure in the FY 1972 FMS Congressional Presentation Documents (CPD), p. 5; and
d. DoD's NOA funds (those which it can use to extend direct credit with) are reduced by $20 million. (For illustration purposes, the amount of those NOA funds could be represented by the $510 million figure in the FY 1972 FMS CPD, p. 5).

2. Using a mix of DoD direct credit and private credit guaranteed by DoD: In this case, in order for the country to receive a $20 million loan, it must negotiate the $20 million loan with a private bank. The way in which this loan becomes "FMS credit," and not just a straight commercial loan that would not be counted against the Latin American ceiling, is for the United States to guarantee the loan. For FMS guarantee purposes, the statutory requirement is that an amount equivalent to 25 percent of the credit extended by the private bank must be placed in a reserve account by DoD, this reserve being established to pay off the bank loan, should the borrowing country default. When the $20 million private loan with DoD guarantee is consummated, DoD must expend $5 million (25 percent of $20 million) of its NOA and transfer it to the reserve account. The results are these:
   a. The country has a $20 million FMS credit line against which it can establish FMS cases, and makes principal and interest repayments to the bank;
   b. $20 million is charged against the Latin American ceiling;
   c. $20 million is charged against the worldwide aggregate ceiling authorized by Congress (e.g., the $582 million illustrated in the FY 1972 CPD); and
   d. DoD's NOA funds (those which it can use to extend direct credit with, e.g., the $510 million illustrated in the CPD) are reduced by $5 million.

These two illustrative transactions are shown in Table 8.

As can be seen, the only effective difference between the two methods is that in the first case DoD expended $20 million of its NOA, whereas in the second case it had to expend only $5 million of its NOA. They are both "paper" transactions in the

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<th>Table 8</th>
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<td>TWO WAYS TO EXTEND FMS CREDIT</td>
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<td>($ million)</td>
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| Type of FMS Credit | Total Available to Country | Amount Charged | Amount Charged |
| --- | --- | --- | --- | --- |
| | Latin American Ceiling | Worldwide (Aggregate) Credit Ceiling | New Obligation Authority |
| Method 1: Direct | 20 | 20 | 20 | 20 |
| Method 2: Guaranteed | 20 | 20 | 5 | 5 |
sense that in neither case does the country actually receive $20 million; what it receives is a line of credit against which it can make orders. The payments to the suppliers are made by the U.S. Government in the first case (DoD direct credit) and by the private bank in the second case (DoD guaranteed credit).

To recapitulate, direct credit authority, or New Obligation Authority, is the amount of credit that Congress appropriates to DoD. This FMS-credit-appropriation amount is distinct from the amount of credit Congress authorizes for worldwide purposes. Without an authorization limit, conceivably DoD could attempt to get private banks to extend loans throughout the world in an amount four times greater than the amount of NOA Congress appropriates. (To illustrate: if the $510 million NOA had been appropriated to DoD, and if all of it were used for guaranteeing private loans, four times $510 million, or $2.040 billion FMS credit could be extended to countries around the world. Of course, the maximum credit that could be allotted to Latin America under any circumstances would only be $100 million because of the ceiling, or less if cash sales had already eaten into the $100 million.)

The fact that this “multiplier effect” is conceivable has led Congress to place an upper limit on the aggregate credit that may be extended worldwide. Knowing that the Congressional limit will be far short of a possible $2.040 billion, the Administration seasoned its FY 1972 request for $510 million NOA by correspondingly requesting credit authority of only $582 million. These figures indicate that DoD was estimating that $486 million NOA will be required for obligating direct-credit extensions worldwide, and another $24 million direct-credit authority for obligating the 25 percent reserve requirement on estimated private loans of $96 million.

These statements are illustrated in Table 9.

To reiterate, the face value of all FMS credit arrangements signed with Latin American countries, whether they are DoD direct or DoD guaranteed, are charged against the Latin American ceiling. In estimating credit requirements, it serves little useful purpose to attempt a specific country-by-country breakdown of direct guaranteed credit. It is not how they get the credit but how much they get that counts. So, the Congressional Presentation Document does not show any such direct guaranteed credit breakdown for any country in any region of the world. The only estimate made is on a worldwide basis so that an obligation (NOA) aggregate requirement can be indicated to Congress. This is because, unless a total NOA requirement is shown, Congress could arbitrarily divide the $582 million aggregate require-

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<th>Requested Authorization (Aggregate) Worldwide (FMS Credit Ceiling)</th>
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<td>24</td>
<td>Guaranteed private credit</td>
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<td>510</td>
<td>Total worldwide FMS credit</td>
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Table 9

CREDIT AUTHORITY REQUESTS, FY 1972

($ million)
ment by 4 and appropriate only $145.5 million NOA. That would leave DoD to depend entirely on private banks making loans of $582 million worldwide, thereby forcing DoD to use all its NOA for guarantee reserve purposes. In such a case, if no private credit could be obtained, the maximum amount of FMS credit that DoD could extend worldwide would be $145.5 million.

By the time FMS credit is authorized, appropriated, and apportioned, it is generally late in the fiscal year. Cash sales will have generally been made on a first-come, first-served basis, the exception being that high priority requests are generally given precedence. As a result, a portion of the $100-million Latin American ceiling will have already been used up by the time credit is made available. Although cash sales are estimated in the CPD, they do not serve as country ceilings, since there is no way of knowing beforehand whether and how much any country may decide to buy. The estimates, thus, are very rough. Table 10 shows a three-year comparison of actual FMS with CPD estimates.

Nevertheless, because of the ceilings and the need to allocate the limited FMS cash and credit authority among the countries of the region, there are severe problems for the U.S. managers of FMS and uncertainties for the Latin American purchasers. The United States finds itself often in the position of denying a country a cash sale because of anticipated requests from other countries that would exceed the ceiling; yet such requests might never come.
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*Less than $50,000.

Incomplete; final figures not available.

"No country breakdown shown; CPD classifies as "other."