

10. West Germany's Arms Transfers to the Nonindustrial World

Hans Rattinger

If, in the past, the policy of the Federal Republic of Germany (FRG) concerning the transfer of military weaponry and equipment to the nonindustrialized countries had been representative of the policies followed by most other industrialized nations, a conference on this topic probably would never have been held. According to the United States Arms Control and Disarmament Agency (ACDA), in the years from 1961 to 1971 the FRG was the world's largest *importer* of military hardware—second only to South Vietnam—but as a supplier it ranked eighth after the United States, the USSR, the United Kingdom, France, Poland, Czechoslovakia, and the People's Republic of China.¹ In the same period, its arms transfers amounted to a meager 2.2 percent of the world total and only 1.8 percent of all deliveries to developing countries. From 1969 to 1973, the West German share of total sales of major arms to the Third World (excluding both Vietnams) was as low as 0.6 percent, which is less than 0.01 percent of the average annual West German GNP.² By international comparison, past West German arms transfers to the nonindustrial world could be described as almost a *quantité négligeable*; for the national economy, they certainly have been negligible.

The reasons for this restraint are found neither in economic and industrial impotence nor in moral virtue. Rather, they are found in lack of opportunity due to German demilitarization and the dismantling and conversion of its defense-related industries and in lack of will due to historical experience and early mishaps that strongly advised against "playing with fire." When the FRG began to rearm after 1955, military preparations and activities were viewed as justifiable only as a means of self-defense in the context of the Atlantic Alliance. Arms transfers from the FRG were thus looked upon essentially as an instrument to enhance the capacity of the free world to defend itself. Not surprisingly, therefore, about 70 percent of these deliveries have so far gone to NATO nations.³ One can

argue that it was precisely this West German focus on arms sales to NATO allies that drove other arms suppliers into Third World markets and thus forced them to cope with the political repercussions of such transfers; the Germans, meanwhile, were able to avoid these problems.

Even though the delivery of German arms to NATO nations has at times led to domestic quarrels, as, for instance, in connection with Portugal's colonial wars, the military coup d'état in Greece, and the Cyprus crisis, the main concern in the Federal Republic generally has been arms transfers to Third World countries, no matter how unimportant they were in quantitative terms. Over the years this concern has grown into a widespread public consensus that the FRG has more to lose than to gain from supplying developing countries with military armaments, a consensus that still provides the basis for the declaratory policy of the West German government. Despite this consensus, however, there is mounting evidence that West German arms transfers to the nonindustrial world are growing in importance and scale: in 1974, for example, the FRG's share of major arms deliveries to the Third World jumped to 2.3 percent.⁴ As a result, an increasing number of strong voices are questioning the wisdom of current export restrictions and urging a radical revision of established dogmas.

It is my contention that during the next decade or so, the scope of West German supplies of military hardware to the Third World will expand considerably. The major uncertainties concern the extent to which the federal government itself will assume an active role in this process, the institutional and organizational arrangements under which it will develop, and whether it will require a formal revision of previous policy guidelines. On these points, the present chapter has little to offer but speculation, which is, therefore, confined to the concluding section. Less controversial answers can be given to questions aimed at the factors that have led to this new phase of arms transfers from the FRG to the Third World. For an appraisal of the complex interplay of economic, military, political, and social forces at work, it is necessary, as a first step, to review briefly the stages through which the FRG's arms transfers to developing countries have gone and what legal, political, and organizational restrictions have constrained them from the outset or along the way. It will then be possible to examine West Germany's NATO role and its force requirements to get a clearer view of the types of military hardware Bonn will be able to offer. In subsequent sections, this potential for arms transfers will be related to Third World markets, and its economic dimension will be discussed. Finally, we will have to look at some special arrangements for West German arms transfers to nonindustrial states, arrangements that recently have grown in importance and that might considerably facilitate this kind of transaction, even if official policy changes but little.

The Stages of West German Arms Transfers to the Third World

The "Erratic Export Phase"

Throughout the 1950s, the FRG supplied only a few weapons to developing nations (see Table 10.1) and, accordingly, for all practical purposes could afford not to have an official policy concerning such transfers. The volume of defense production started to grow when West Germany joined NATO in 1955, but the lion's share of the emerging industry's output served to meet the needs of the Bundeswehr. Moreover, the pace of its expansion was severely curtailed by massive German purchases of weapons from the United States. The few deliveries of major arms from the FRG to developing countries during that time consisted almost exclusively of small surface ships carrying minor armament that were sold to Indonesia and to a few Latin American countries. As there was no systematic government involvement in those deals, the 1950s might be called the "erratic commercial phase."

The "Military Assistance Phase"

Around 1960 West Germany entered what may be termed the "military assistance phase" of its arms supplies to the Third World. There can be no doubt that the U.S. government's desire to place some of its defense burdens upon its NATO allies played a major role in initiating this phase, but it also was in line with the FRG's perception of its own security interests. By giving military as well as civilian assistance to former colonies, especially in Africa, the Federal Republic could share some of the U.S. financial commitments and, at the same time, strengthen resistance to communist expansion and contribute to stability and peace in the recipient countries and regions. In addition, military assistance programs provided a convenient outlet for surplus weapons that had started to pile up, since much of the Bundeswehr's first-generation equipment, which had been hastily assembled in the late 1950s, was rapidly being replaced under offset agreements, with the United States.⁵ Under two military assistance agreements, which were kept secret, Israel received a significant consignment of Bundeswehr surplus weapons: M-48 Patton tanks, transport, trainer and utility aircraft, helicopters, antiaircraft guns, and antitank guided missiles (MBB Cobra). Apart from Israel, major recipients of West German military assistance during this phase were Nigeria, Sudan, and Tanzania. These three African countries received patrol and coast guard vessels, light utility, transport and trainer aircraft, armored cars, mortars, rifles, parts for ammunition factories, and other military equipment and training worth about \$50 million.⁶

That the FRG did initiate military assistance schemes, notably to

TABLE 10.1

West German Transfers of Major Arms to the Third World 1951-1974

(1)* Year	(2)* Recipient	(3)* Number	(4)* Item	(5)* Military Assistance (MA) Commercial (C)	(6)* Comment	(7)* Monetary Value per Year
1951						1
	Egypt	(2)	Bücker Bü 181	?	prior to start of local production	
1952						0
1953						1
	Indonesia	1	training ship	C	810t, 1953	
1954						4
1954-57	Indonesia	10	coastal minesweeper	C	139t, 1954-57	
1954-55	Ecuador	6	patrol boat	C	45t, 1954-55	
1955						7
1956						9
1956-57	Colombia	2	coastguard vessel	C	146t, 1955	
	Israel	2	patrol boat	?	96t, 1956-57	

(1) Year	(2) Recipient	(3) Number	(4) Item	(5) Military Assistance (MA) Commercial (C)	(6) Comment	(7) Monetary Value per Year
1957						5
1958						7
	South Africa	2	Dornier Do-27B	C		
1958-59	Indonesia	6	patrol boat	C	140t, 1958-59	
1959						26
	Colombia	1	oiler	C	22682t, 1952	
	Uruguay	1	patrol boat	C	70t, 1958	
1959-60	Indonesia	8	fast patrol boat Jaguar class	C	150t, 1959-60	
1960						23
	Israel	24	Sikorsky S-58	?	bought for Bundes- wehr but diverted to Israel with U.S. approval	
1961						5
	Thailand	1	surveying vessel	C	870t, 1960	
	Tunisia	1	patrol boat	C	75t, 1961	
	Katanga	5	Dornier Do-28	?		
1962						2
	Zaire	1	Dornier Do-27	MA		
1962-65	Israel	(500)	MBB-Cobra	MA		
1962-65	Sudan	97	Saladin	MA		

TABLE 10.1 (Cont.)

(1) Year	(2) Recipient	(3) Number	(4) Item	(5) Military Assistance (MA) Commercial (C)	(6) Comment	(7) Monetary Value per Year
1963						10
	Tunisia	1	patrol boat	C	75t, 1962	
	Malagasy	3	patrol boat	MA	46t	
	Nigeria	2	Noratlas	MA		
	Nigeria	14	Piaggio P.149D	MA		
	Zaire	2	Dornier Do-27	MA		
1964						20
	Nigeria	20	Dornier Do-27	15 MA, 5 C		
	Ruanda	1	Dornier Do-27	?		
	Sudan	3	Dornier Do-27	MA		
	Tanzania	2	Coastguard boat	MA	50t	
	Tanzania	4	patrol boat	MA	112t, later transf. to Kenya	
	Togo	10	Piaggio P.149D	?		
	Mexico	(15)	HW-K11	C	APC	
	Colombia	3	coastguard vessel	C	129, 5t, 1963	
1964-65	Israel	200+	M-48 Patton	MA	ex-Bundeswehr	
1965						10
	Thailand	2	patrol boat	C	delivery uncertain	
	Ghana	1	fast patrol boat	C		
	Nigeria	5	Fouga Magister	MA	delivery uncertain	
	Tanzania	8	Piaggio P.149D	MA		
	Tanzania	2	Dornier Do-28	MA		
	Pakistan	(500)	MBB Cobra	C	built under licence in Pakistan	

(1) Year	(2) Recipient	(3) Number	(4) Item	(5) Military Assistance (MA) Commercial (C)	(6) Comment	(7) Monetary Value per Year
1966						64
	Pakistan	90	F-86 Sabre	C	illegally transf. via Iran	
	India	24	Seahawk MK 100/101	C	illegally transf. via India	
	Niger	2	river gunboat	MA		
	Venezuela	74	F-86K	C		
1967						3
	Southern Yemen	4	Douglas DC-3	C		
	Tunisia	1	patrol boat	C	75t, 1966	
1968						8
	Israel	25	Fouga Magister	C	ex-Bundeswehr	
	Morocco	24	Fouga Magister	?		
	Morocco	2	patrol boat	?		
	Cameroon	1	Dornier Do-28	C		
	Ghana	5	fast patrol boat	C		
1969						13
	Saudi Arabia	3	fast patrol boat Jaguar class	C	170t, new	
	Tunisia	1	patrol boat	C	325t, ex-French	
1969-70	Argentina	(60)	MBB Bo 810 Cobra 2000	C		

TABLE 10.1 (Cont.)

(1) Year	(2) Recipient	(3) Number	(4) Item	(5) Military Assistance (MA) Commercial (C)	(6) Comment	(7) Monetary Value per Year
1970						1
1970-71	Niger	4	Noratlas	MA	ex-Luftwaffe	
1971						19
	Ethiopia	1	Reims-Cessna 337 Skymaster	MA		
	Niger	1	Aero Commander 500	C		
		2	Douglas DC-6B	C	ex-Luftwaffe	
	Ecuador	10	UR-416	C	light AC	
	Peru	106	UR-416	C	light AC	
1971-72	Brazil	4	coastal minesweeper	C	230t, new	
	Ecuador	3	fast patrol boat Manta class	C	carries Exocet SSM	
1972						28
	Singapore	2	missile boat Jaguar class	C	120t, new, licence for several more granted	
	Peru	112	UR-416	C	light AC	
1972-73	Brazil	4	Aerospatiale/MBB Roland	C	8 launchers, assembly in Brazil, delivered together with Marder APCs	
1973						2
1973-74	Philippines	5	MBB Bo 105	C		

(1) Year	(2) Recipient	(3) Number	(4) Item	(5) Military Assistance (MA) Commercial (C)	(6) Comment	(7) Monetary Value per Year
1974						88
	Iran	3	patrol boat	C	70t, possibly delivered 1975	
	Israel	(15)	Dornier Do-28	C		
	Lebanon	3	patrol boat	C	possibly delivered 1975	
	Ethiopia	2	Dornier Do-28	MA		
	Ghana	(1 or 2)	patrol boat	C	160t, one unit possibly del. 1975	
	Nigeria	8	Dornier Do-28	C		
	Nigeria	4	MBB Bo-105	C		
	Zambia	10	Dornier Do-28	C		
	Argentina	1	submarine, type 209	C	1,000t, second to be operational in 1975	
	Argentina	2	fast patrol boat, type S 148	C	240t, one or two units possibly del. in early 75, carries Exocet SSM	
	Brazil	2	coastal minesweeper	C	4 delivered 71-72, 4 more under construction	
	Colombia	2	submarine, type 209	C	1,000t, probably del. 1975	
	Ecuador	3	fast patrol boat, Manta class		119t, carries Exocet SSM	

*Notes to column: (1-2) Deliveries extending over several years are mentioned in the year in which delivery began.
(3) Parentheses indicate uncertain information.

(4) For a glossary of weapon systems, refer to SIPRI, Arms Trade Registers, pp. 131-148.

(5) Sources: SIPRI, The Arms Trade with the Third World, Table 9.2, pp. 310f.; H. Hatendorf, Militaerhilfe und Ruestungsexporte der BRD, Duesseldorf, 1971, Table 6, pp. 122-125.

(6) Years appearing in this column indicate date of construction.

(7) In 10⁶ constant (1973) U.S. dollars. Source: SIPRI Yearbook 1975, Table 8B. 2., pp. 220f.

Sources: SIPRI, Arms Trade Registers is the main source. Information for the years from 1967 onward has been checked against the annual issues of Military Balance, published by the International Institute for Strategic Studies. For 1973 and 1974, SIPRI Year books and the Military Balance have been used as primary sources.

African countries, was certainly an outcome of Alliance politics. Once they got under way, however, they were also utilized as instruments for pursuing German national interests, especially so in the FRG's "containment" policy vis-à-vis the German Democratic Republic. Even though there was no explicit link to the Hallstein Doctrine, recipients of military assistance were expected to take into account the FRG's claim to be the sole legitimate German state. Whether this approach was effective is almost impossible to ascertain, since the recipients of West German military assistance generally have received far more impressive civilian aid from the FRG; thus, their general compliance with German expectations might well be ascribed to their reluctance to jeopardize the nonmilitary programs.⁷

The "military assistance phase" of the FRG's arms transfers to nonindustrialized countries ended rather abruptly after Bonn's foreign policy debacle, which stemmed from the attempt in 1965 to carry through the military assistance agreements concluded with Israel. The West German government under Chancellor Erhard had to rethink the whole concept of the FRG's military assistance programs to countries outside NATO and was forced to conclude that they obviously had not been large enough to yield international leverage but had been far too large to remain inconspicuous. In order to save face, it was decided not to give military assistance to "areas of international tension" in the future.⁸ Existing programs were quickly deprived of their military character by converting them to equipping and training internal security forces. By 1968, most of them had been redirected even further into the field of civilian assistance by stressing the development of infrastructure, especially transportation and communication facilities,⁹ thus passing beyond the scope of this chapter. Similar caution was exerted with respect to Bundeswehr surplus weapons: when the army, in 1965, began to phase in the first Leopard tanks, most of the M-47 Pattons they replaced were sold to allies or used as targets and afterward scrapped.

As in the fiasco over military aid to Israel, which had completely shattered the federal government's self-assured approach to military assistance to developing countries of the early 1960s, a series of events in 1966 also discredited commercial or quasi-commercial arms transfers to the Third World and thus completed the transition to a third phase of the FRG's policy toward armament transfers. In that year, the private firm, Merex Co., which had specialized in exporting Bundeswehr surplus weapons, purchased ninety F-86 Sabres and twenty-eight Seahawks plus spares from Vebeg, a state-owned company responsible for the sale of such surplus stock. After sales to Iran and Italy had been negotiated and the required end-use certificates had been presented, official permission to go ahead was granted by the governments of West Germany, Canada, and the United States. Canada and the United States were involved because the Sabres originally had been built in Canada under U.S. licenses. The Sabres, however, wound up in Pakistan and the Seahawks in India, both at the time

certainly "areas of international tension."¹⁰ In the meantime, the trial against Merex has revealed that the Bundesnachrichtendienst (BND) (Federal Information Agency) was involved in those deals.

The "Quiet Commercial Phase"

The fiascoes of 1965-66 have been mentioned briefly, because the subsequent practices and doctrines concerning FRG arms transfers to the nonindustrial world can be understood only against this background. The obvious consequences of these events were to lend a more civilian touch to military assistance to developing countries, to restrict military aid proper to NATO allies, and to transfer the disposal of Bundeswehr surplus from private "merchants of death" to the Ministry of Defense, which, together with the Foreign Ministry, bears an unambiguous political responsibility. In addition, consideration was given to whether commercial arms transfers of new, as well as of surplus, weapons should not also be entirely confined to NATO nations and how—in the light of the Seahawks' passage to India via Italy—such restrictions could be enforced by a more rigid application of end-use requirements. This discussion received additional momentum from a number of internal political developments. In late 1966, the Social Democratic Party (SPD), which had severely criticized the FRG's military assistance programs as well as surplus sales to the Third World, formed a "Great Coalition" with the Christian Democratic Union (CDU) and then, in 1969, forced the CDU into opposition. The late 1960s also saw the apogee of student unrest and the New Left movement and, consequently, a public opinion and parliamentary environment that increasingly disapproved of all kinds of weapons supplied to the Third World.

When the SPD took power, most West German military assistance programs to Third World countries had been "demilitarized," a few new ones had been begun, and old ones were continued mainly so as not to offend old patrons.¹¹ The FRG's arms transfers to the developing nations, therefore, had again shifted to a commercial phase—as a result of the turbulence of the mid-1960s. Exports of armaments to these regions, however, had to take place under severe constraints: concerned industries had to keep a low profile in view of parliamentary efforts to block such exports entirely,¹² and the decision to prevent arms supplies to "areas of tension" kept West German firms out of the markets exhibiting the highest demand for sophisticated weaponry. From 1967, as a consequence, light aircraft and small surface ships again became the most prominent items on the FRG's export list, and most of them were supplied to African and Latin American countries. Whereas in the "military assistance phase" the federal government had been the primary actor and the responsible party in most arms transfers to the nonindustrial world, private enterprise now took the initiative. Because of the low volume of arms sales to developing countries and the discretion with which they were transacted, this period fol-

lowing the mid-1960s might appropriately be termed the “quiet commercial phase.”

The separation of political responsibility and commercial activity, which is characteristic of this phase, will certainly remain a guideline of the FRG's arms transfer policy and has allowed the gap between declaratory and operational policies to widen, thus paving the way for a possible fourth “open commercial phase.” (Indeed, a few years hence we might look back on 1976 as the year when this new phase began.) As to declaratory policy, 1971 saw the culmination of the efforts to block almost all arms deals with countries outside NATO. In line with its *Friedenspolitik* (“policy of peace”)—the most important component of which, of course, was the *Ostpolitik*—the federal government decided to ban such transfers entirely.¹³ “The federal government has decided upon guidelines for the export of military weapons and other armaments. The trade in military weapons is to be curtailed. As a principle, they are not to be exported to countries outside of NATO.”¹⁴

Opposed to this statement of principles stand the facts. Arms transfers from the FRG to the nonindustrial world did not stop in 1971 or thereafter. Quite the contrary. In 1975 (more recent data are still unreliable), the financial volume of the export of major arms reached its all-time high (see Table 10.1 for details). Most of these transactions were commercial in nature, and a number of the relevant agreements had been concluded at the same time the West German government pledged to cut off all arms transfers except those to NATO allies. Accordingly, the defense white papers published in 1974 and 1976 refrained from repeating such an unambiguous commitment.

The primary reason for the deviation of actual practices from pronounced principles is the weight the FRG's armament industry has gained over the years. Extensive production under U.S. licenses for Bundeswehr needs led to a rapid expansion of expertise, experience, and manufacturing capacities, and expansion that by the mid-1960s was already generating indigenously designed weapons that met international standards, especially in the fields of armor, antitank weapons, missile boats, and small submarines. In the meantime, German industry, either alone or through international collaboration, has begun to produce or currently has under development almost all major weapons systems for the Bundeswehr. Although its production program is almost exclusively geared to the Bundeswehr's force requirements, derived from Germany's NATO role, it has also encountered lively demand from NATO allies as well as from developing nations. These changes have caused the FRG's armaments industry to regain self-assurance and to seek a more active role in international markets, a process that has received additional momentum from the current economic crisis but that clearly runs counter to the federal government's declaratory policy. Before discussing in more detail the political, military, and economic dimensions of these recent developments—which might soon bring us into an “open commercial phase” of

West German arms transfers to the Third World—let us briefly look at the restrictions to which such transfers are subject.

Legal, Organizational, and Political Constraints on West Germany's Arms Transfers to the Third World

Article 26 of the Federal Republic's constitution states as a general principle that "weapons designed for warfare may be manufactured, transported, or marketed only with the permission of the federal government." Along with the restrictions placed in the WEU treaty on the types and sizes of major weapons systems that West Germany could produce, this provision remained the only legal basis of arms transfers from the FRG until 1961, so that their first phase can also be called "erratic" with respect to political and legal controls. In 1961, a series of unpleasant incidents over small arms deliveries to Morocco led to the passing of the Weapons Control Act and the Foreign Trade Act.¹⁵ The Weapons Control Act established procedures and criteria under which permission to export weapons from the FRG would be granted or withheld, and it contains an exhaustive list of weapons to which it applies. The Foreign Trade Act created a legal basis for interfering with foreign trade if it appeared that foreign trade might jeopardize the security or the foreign relations of the FRG or peaceful relations among other countries.¹⁶

According to the Weapons Control Act, the permission of the Ministry of Economics and one of its federal agencies (Bundesamt für Gewerbliche Wirtschaft) has to be obtained for all commercial exports of weapons and military equipment. The Ministry of Economics has to secure the approval of the Foreign Ministry, especially its foreign trade division and all regional and country desks involved. Decisions on military assistance as well as military training assistance are taken by the Federal Security Council (Bundessicherheitsrat), a government committee headed by the chancellor.

Following the uproar over military assistance to Israel and the diversion of combat aircraft to India and Pakistan, additional rules were adopted. Neither military assistance nor commercial arms transfers from the FRG should go to areas of international tension, and recipients of either should have to commit themselves not to transfer any equipment to third parties without the consent of the West German government. In addition, recipients' customs authorities have to acknowledge officially the import of commercial arms transfers from the FRG to make sure that deliveries actually reached their destination.

What is missing from this tight web of legal and political restrictions on arms transfers from the FRG are instruments of parliamentary control. It was not until 1964 that funds spent on military assistance were officially detailed in the federal budget and thus became amenable to parliamentary intervention.¹⁷ As the bulk of West German armament transfers to the

nonindustrial countries after 1966 has shifted from military assistance to commercial transactions, the Bundestag's controlling powers have become largely irrelevant—at least as far as transfers to developing countries are concerned. With regard to commercial exports of weapons, there is no instrument of parliamentary leverage in the FRG comparable to the U.S. Foreign Military Sales Act of 1968, and, surprisingly, so far there have been no initiatives to create such an instrument. Since the early 1960s, there have been unsuccessful attempts to extend the Weapons Control Act and the Foreign Trade Act to the supply of machinery and know-how for weapons and ordnance production to foreign countries as well as to related activities of German nationals abroad.¹⁸ As will be seen below, arrangements of this kind have recently grown in importance for circumventing the export restrictions described above.

West Germany's NATO Role and Force Requirements and Arms Transfers to the Third World

Army

As the recovery of the West German armaments industry has to be seen in connection with the FRG's integration into NATO, its current and future production programs and therefore its array of potential export items are also mainly derived—at least as far as major weapons systems are concerned—from the force requirements of the Bundeswehr and thus, indirectly, from its NATO role.¹⁹ Since the Bundeswehr supplies one-half of the allied ground forces in Central Europe, forces that face the bulk of Warsaw Pact armor, it is only natural that its antitank role has always been the primary concern of the West German army.²⁰ Accordingly, the Leopard main battle tank and the first-generation antitank guided missile Cobra were among the first pieces of more sophisticated equipment to be designed in the FRG.

Leopards, which entered production in 1965, have been received or ordered by Belgium, Denmark, Italy, the Netherlands, and Norway, and, outside NATO, by Australia.²¹ Iran, Spain, Switzerland, Greece, Turkey, Canada, and South Africa have all indicated interest in purchasing Leopards or building them under license.²² The follow-on model, Leopard 2, is currently in the final stages of development and has gone through comparative evaluation with the XM-1 in the United States.²³ Up to 1971, at least 22,000 Cobras have been exported, three-fourths of them to the Third World, with the Middle East being the major recipient.²⁴ They have been purchased or built under license by Argentina, Brazil, Iran, Iraq, Israel, and Pakistan.

The Bundeswehr's requirements for the Leopard 2 stress mobility, firepower and protection, in that order. Mobility is also an important consideration in West German mechanized infantry tactics, and this has led to the development of the Marder APC (armored personnel carrier), for

which there is considerable demand from less developed countries. Saudi Arabia, for instance, wants to buy 800 Marders, but so far the federal government has refused to grant an export license. In view of Central European terrain and highway and rail networks, mobility is not necessarily tied to comprehensive cross-country capability. Therefore, a family of wheeled armored cars has been designed, for instance the UR-416, which also meets the requirements of developing states, especially in the counterinsurgency field.

With respect to second-generation antitank PGMs (precision-guided munitions), West German and French industries in collaboration have developed the MILAN and HOT systems. MILAN is a man-portable infantry weapon, which can also be mounted on the Marder APC; HOT will replace the SS-11 missiles on the Bundeswehr's 320 missile-tank-destroyers but can also be mounted on the MBB Bo-105 light helicopter.²⁵ Since France and the FRG are already the two major Western exporters of antitank PGMs to the Third World and to the rest of NATO as well, these two systems are almost certain to find their way abroad in considerable quantities.

Advanced weapons are being developed and produced for the Bundeswehr not only in the field of armor and antiarmor but also in supporting systems, such as artillery and air defense. Great Britain, Italy, and the FRG are currently testing a new 155mm field howitzer FH-70, and a self-propelled version (SP-70) is under development.²⁶ The first of a total of 432 Gepards, an anti-aircraft tank utilizing a Leopard chassis and mounting a 35mm twin cannon, will enter service in 1976. Another 150 Gepards have been ordered by Belgium and the Netherlands.²⁷ Mobile air defense will be reinforced further by the German-French Roland missile, which is mounted on the Marder APC and is especially designed to operate against low-flying aircraft. So far, the Bundeswehr has ordered 140 units of this system, which has also been tested by the United States; a small number of them have already been exported to Brazil.²⁸

As to the prospects for exports of this array of sophisticated weaponry, it seems safe to assume that all systems mentioned above will be transferred to NATO allies in due course. For Third World markets, Leopard tanks, Marder APCs, armored cars, and second-generation antitank weapons are the most attractive items. Mobile air-defense systems such as Gepard and Roland, on the other hand, make sense only if—as is the case in the Middle East—prospective enemies possess modern ground-attack aircraft.

Navy

Although West German shipyards participated in FRG rearmament from the beginning, they were constrained by WEU ceilings on the displacement of surface fighting ships (1,500 tons) and submarines (450 tons) that could be built. On the other hand, these restrictions coincided with the role that the West German navy took within NATO and the ships

that were required to perform this task, i.e., to prevent the Baltic Sea from becoming a *mare nostrum* for the USSR and to contribute on a limited scale to securing the North Sea.²⁹ The West German shipbuilding industry has accordingly specialized in fast patrol boats, which have increasingly been armed with ship-to-ship missiles, and in small conventional submarines with wire-guided torpedoes as their main armament. Six frigates (Cologne class) and four destroyers (Hamburg class) have also been constructed with WEU permission.

Thus far, fast patrol boats have been the FRG's major export success with regard to Third World navies, and this success is likely to continue.³⁰ West German shipyards already produce two types of advanced-design fast missile boats (type 148, 250 tons; type 143, 350 tons) for the Bundesmarine, which have also been in demand from developing countries, notably in Latin America. In 1974, Argentina ordered two type-148 boats, and Ecuador purchased six smaller missile boats. Turkey recently contracted for the construction of several boats of the new SAR-33 class, which might also look attractive to recipients outside NATO.³¹ The only major surface ships currently projected by the FRG navy are twelve 122-class frigates, which will be produced jointly with the Netherlands and are to replace three Fletcher-class and four Hamburg-class destroyers, as well as six Cologne-class frigates from 1981 to 1990.³² A Third World market for these ships is not foreseeable.

Though the West German contribution to the buildup of Third World navies has mainly been the delivery of fast patrol and missile boats, NATO allies have preferred small German submarines. In the 1960s, Norway bought fifteen type-207 boats (350 tons); Greece received four type-209 submarines (1,000 tons), and three more are under construction; and Turkey has also ordered three type-209 boats, of which one has already been delivered. When WEU permission to build the first four boats for Greece was not forthcoming, they were completed under the WEU permission to construct six 1,000-ton submarines for the German navy,³³ a program that was later officially postponed. The WEU ceiling was raised to 1,800 tons in 1973. In the meantime, submarines have also become an important item of West German transfers of fighting ships to the Third World. By March 1977, Peru and Argentina each had received two type-209 submarines, and Colombia, Ecuador, and Venezuela each had two such boats under construction in German shipyards.³⁴ In February 1977 the federal government permitted Indonesia to order two type-206 submarines from Howaldtswerke/Deutsche Werft in Kiel.³⁵ It should be stressed that 1,000-ton submarines so far have not been introduced into the Bundesmarine, and thus the 209-type submarines can be regarded as the first major weapon system the FRG produces solely for the purpose of wholesale export.

Air Force

Although the FRG's industry supplied a considerable proportion of the

second-generation equipment of the West German army and navy, for the air force the situation has been very different. Apart from transport and light utility aircraft, almost all planes were either bought from the United States or built in the FRG under U.S. licenses. So far, not a single operational combat aircraft of the Luftwaffe has been *designed* by the German aircraft industry. Exports of aircraft to nonindustrial states, therefore, have been restricted to Luftwaffe surplus trainers and jet fighters, a few helicopters, transports, and light liaison planes (Dornier Do-28), the last of which are suitable for counterinsurgency missions.

This state of affairs is going to change rapidly when the two current large-scale projects being undertaken by the FRG aircraft industry in collaboration with those of France, Great Britain, and Italy enter the production phase. For the French-German (Dassault-Breguet-Dornier) Alpha Jet, this is scheduled for August 1978. The Luftwaffe wants to replace its Fiat G-91s with 175 close-support versions of the Alpha Jet and plans to complete the transition by the end of 1981. The French air force will buy 215 trainer versions of the plane, and Belgium has ordered 33 Alpha Jets. Turkey also has indicated its intention to purchase 52 to 56 Alpha Jets, but so far no contract has been signed.³⁶ Finland and Egypt—where flight demonstrations have already been performed—also seem interested in the plan,³⁷ with Egypt reportedly ready to purchase as many as 120 aircraft.

The West German aircraft industry's second major program is the Multi-Role Combat Aircraft (MRCA). Conceived in 1969, this product of British-Italian-German collaboration³⁸ allegedly is tailored exactly to the needs of the Luftwaffe,³⁹ but there is ample evidence that the three cooperating countries have conflicting requirements and that the Luftwaffe has lost confidence in MRCA's versatility, as indicated by the decision to procure Alpha Jets for the close-support role that initially was to have been assumed by the MRCA.⁴⁰ The final decision on the production of a first consignment of MRCAs was taken in spring 1976. Production is scheduled to begin in late 1978, and the first 120 aircraft are to replace the navy's F-104 G Starfighters. From 1982 to 1987, the Luftwaffe's Starfighters are to be replaced by 202 MRCAs.

Some of the problems plaguing the MRCA program worry the three cooperating countries not least because they establish almost insurmountable obstacles for the aircraft's export, even though its promoters do not tire of predicting demand from abroad.⁴¹ The first deterrent to potential buyers is that production and further development will overlap for quite some time. The second headache is caused by the notorious mushrooming of the system's costs, which will raise unit prices to levels that will be prohibitive for most Third World nations and even NATO allies. In its conception phase, a unit price of \$6 million was quoted. By now, unit prices of up to \$18 million and thus system prices of around \$27 million have appeared in print,⁴² which implies that the FRG would have to spend

at least \$6 billion on the procurement of its 322 MRCA's. As a result, officials in the three countries have given consideration to whether the increase in cost could be offset by a reduction in numbers, even though this would naturally drive up the system price even further and also severely cut into NATO's air power. In the MRCA's conception phase, the Luftwaffe estimated its needs at between 700 and 1,000 aircraft!

All this indicates that MRCA is not likely to become a best-selling export, either to developed or to developing countries. Such a role seems more probable for the Alpha Jet or for less spectacular systems, as for instance the MBB Bo-105 helicopter, which, together with HOT missiles, forms a formidable antitank weapon.⁴³ But the more important problem for FRG's policy on arms transfers to the Third World might well become in the longer run not what to do about exports of the above list of modern and sophisticated weaponry designed for the West German army, navy, and air force, but how to dispose of the enormous amount of surplus arms that will be created when these new systems are phased in. By the middle to late 1980s, thousands of Leopard 1s and APCs, ten comparatively modern destroyers and frigates, and hundreds of G-91s and F-104s will have become surplus, to name just the better-known systems. After the debacles over the disposal of the surplus generated by the replacement of the Bundeswehr's first-generation weapons, the federal government will probably be forced to take a more active role the next time. If the present trend continues, i.e., if even the poorer NATO nations and the oil-rich states increasingly refuse second-hand armaments, only the Third World, or rather the "Fourth World," might remain as a market. Such a development would obviously require radical changes in the FRG's export policy.

Economic Aspects of West German Arms Transfers to the Third World

Earlier in this chapter, previous arms transfers from the FRG to the nonindustrial world were called a *quantité négligeable*. So far, ample evidence has been presented that they no longer fit that description and that West Germany's armaments industry certainly is no longer insignificant. The FRG, by national and cooperative design and production, is now approaching self-sufficiency in the field of military hardware and supplies. This trend is becoming obvious in the FRG's refusal to renew the offset agreement with the United States, which expired in 1975; with a few exceptions (e.g., TOW for airborne troops and Lance), there is little Bundeswehr demand for U.S. weapons.⁴⁴

In the shipbuilding industry and the manufacture of armor and antitank weapons, this economic success has been achieved without extensive government support, but rather as a spin-off from civilian production by way of technological superiority and deliberate exploitation of export markets within as well as outside NATO. The West German aircraft

industry, on the other hand, owes its ascent largely to defense-related government orders and development contracts. After a series of failures and terminated programs, it was down and out in 1966-1967 and getting ready for mass layoffs even among its 8,000 scientists and engineers,⁴⁵ but its pleas for government aid did not go unheeded. The decision to proceed with the design of the MRCA as an advanced European combat aircraft instead of buying off the shelf in the United States thus also has to be seen as part of a government rescue program for this ailing industry, in spite of strong verbal proclamations that the Bundeswehr would buy equipment where it was cheapest rather than guarantee a continuous flow of orders to West German industry.⁴⁶ Accordingly, the share of defense-related output in the FRG's aerospace industry amounts to 70-80 percent, but in most other sectors it runs from 5 to 10 percent.⁴⁷

Regardless of the reasons, the steady upswing of the armaments industry has led to a considerable export drive, which has been openly supported by the federal government as a contribution to standardization of weapons among NATO allies. The most recent example of this is Defense Minister Georg Leber's effort to get the United States to adopt at least a few components of the Leopard 2 MBT for its XM-1 tank. To promote Leopard 1 sales to Belgium, Norway, and Holland, the FRG concluded offset deals that obliged it to place civilian and military orders in those countries amounting to a certain percentage of the Leopard deals.⁴⁸

The economic arguments in favor of stronger export orientation regarding weapons and military supplies have already obtained such international acceptance that a detailed examination is unnecessary. The standard arguments are, of course, the leading role of military technology, which—if pursued on a large enough basis—produces spillover effects for civilian technology as well as the economies of scale that can be attained by larger production runs. In the context of West European defense collaboration, this latter argument has led to absurd consequences. By producing for the larger European market, the FRG hoped to avoid the need to export to countries outside NATO. But at the same time, European defense collaboration encouraged participating countries to embark on projects—such as the MRCA—that are so grand in scope and for which demand among European NATO nations is so low that hopes are again turning to the export market to achieve economies of scale.

The debate in West Germany over arms transfers to the Third World has by no means been restricted to these classical arguments. Proponents of a more "liberal" policy have argued that developing countries often wish to conclude "package deals"—for instance, to buy a cannon or a tank *plus* an ammunition factory—so that if a prospective seller restricts the export of one of the package's items, the order probably will go somewhere else. As West German industry is heavily dependent upon exports, this argument has also been presented in a "civilian" version, which is that Third World buyers will often reward the supplier of desired military hardware by

placing civilian orders in the same country or deliver appropriate "punishment" if export licenses are withheld. More generally, armaments transfers are treated as a sales promotion device for forthcoming military or civilian transactions or both.⁴⁹

In the late 1960s and early 1970s, this kind of promotion did not receive much attention. Since civilian production and exports were still expanding rapidly and since the German labor market was among the tightest in the world, Minister of Defense Helmut Schmidt could afford an outright rejection of all considerations aimed at expanding the FRG's weapons exports to countries outside NATO.⁵⁰ But after the general economic crisis of the West had been aggravated by the Arab oil embargo and the subsequent price hike, the standard set of arguments began to reappear in defense-related circles with growing frequency and intensity, and a series of new considerations was added. First, a more active role for the FRG as an exporter of arms would increase the number of orders and thus smooth the effects of major fluctuations in Bundeswehr and NATO demand, which, under the impact of the crisis, could no longer be readily compensated by civilian demand. Second, the labor market could be stabilized, and additional jobs could be created in armaments industries.⁵¹ Together, these lines of reasoning produced a more permissive stance toward arms transfers to the Third World as an instrument of economic policy to fight the recession.

These recent developments have also led to a realignment in the ranks of those favoring or opposing current export restrictions. In the past, the FRG's unions have always strictly opposed West German arms deals with developing countries, but there are indications that union representatives from armaments factories have begun to join the export drive and that their nationwide unions will tolerate, if not support, their activities.⁵² In view of the close association between the unions and the SPD, this means increasing pressure on parliament and government, in addition to that already exerted by the industry itself and its contacts in the CDU. Whether this process might possibly be reversed again by a more permanent economic upswing remains to be seen. It is highly unlikely that the industry will drop its own efforts to obtain a more permissive environment for its arms deals when the economy picks up.

Some Special Arrangements for West German Arms Transfers to the Third World

Direct exports of German-made weapons are only one way of transferring armaments to the Third World. Historically, at least three less conspicuous procedures have been employed, i.e., the export of plants and licenses, foreign assembly arrangements, and multinational projects. So far, the first has been the most prominent, but the second and third are growing in importance and might well make up the bulk of the FRG's

weapons exports to nonindustrial states in the future.

Exports of Plants and Licenses

In the 1960s, West German industry began to build small arms and ammunition factories in developing countries—for instance, in Guinea, Nigeria, Iran, Sudan, and Burma—and licenses to produce German-designed weapons were granted to many more countries.⁵³ Those transactions were often part of military assistance programs, but in recent years they have become more and more commercial. Recipients have become more numerous, and licenses have also been granted for major weapons systems.⁵⁴

Iran has probably become the outstanding example of the export of West German weapons and ammunition factories and licenses to the Third World. In 1969 Iran wanted to purchase 1,000 Leopard tanks but was turned down. In 1974, however, after the oil embargo, Iran received equipment for tank maintenance, and West German firms started to build ammunition plants in Iran, the output of which will be larger than that of the FRG's own ammunition plants.⁵⁵ In addition, Iran negotiated for the construction of plants for tank engines, tracks, and guns by the very same companies that produce engines, tracks, and guns for the Leopard 2 tank.⁵⁶ The federal government has not objected, since it no longer considers Iran to be an area of tension. It is expected that Iran will ask for licenses to build the Leopard 2 as soon as its development is completed and the Bundeswehr begins to phase it in.

Control is obviously the main problem involved in exporting factories and blueprints for the production of weapons and ammunition in developing countries. Such transactions are generally far less conspicuous than the transfer of complete weapons systems, so they occasionally go unnoticed. More important, the legal basis for restricting them is far from complete. Even though the Weapons Control Act and the Foreign Trade Act also pertain to tools, substances, and know-how required for the production of arms, there are large loopholes. If, for instance, a multipurpose machine tool is suitable for the manufacture of lipstick containers as well as small-arm ammunition, there is no way of constraining its export or insisting upon a guarantee that only lipstick will be produced by the recipient country.

Foreign Assembly

A second way of bypassing West German export restrictions, especially on major weapons, is to deliver segments and parts of a system to a partner firm in the recipient country or in a third country, which then assembles the final product and possibly markets it in its own name. West German firms thus appear only as suppliers of prefabricated parts. This arrangement was adopted for the construction of the 1,000-ton type-209 submarines for Argentina and Greece, since the FRG, at the time of

negotiations, was not yet permitted to build boats of this size. Experts doubt, however, whether Argentina's shipyards could actually have assembled submarine sections without massive outside help, so that the WEU permission to produce submarines of up to 1,800 tons, granted to the FRG in 1973, arrived just in time.

With a few exceptions, developing countries will rarely have the technology necessary to assemble sophisticated weapons systems from their components; thus, third countries with sufficient industrial capacities and less restrictive arms export policies are required to perform this task. Currently, at least two large-scale projects of this sort are under way. In Italy, Oto Melara is building the prototypes of a main battle tank called the Lion, which is nothing but a copy of the Leopard. More than half of its components are directly imported from West Germany, the rest are manufactured in Italy under German licenses, and the license for the gun comes from Great Britain. The Lion, the advertisements for which are expressly aimed at Third World and especially Arab markets, is to enter production in 1977.⁵⁷

The second example of foreign assembly of German weapons for the Third World is the Marder APC, of which Saudi Arabia wants to buy 600 to 800. The final decisions have not yet been made, but it is likely that either the Belgian branch of Rhein Stahl, the Marder's original manufacturer, or a French firm will be responsible for assembly and export.⁵⁸ As no resistance to the Lion and Marder enterprises has yet materialized, the armaments lobby has begun to hail foreign assembly arrangements as the future way out of the "thickets of West German export restrictions," and such arrangements may well be applied to other systems and other recipients as well.

Multinational Projects

Multinational European production of weapons for the FRG has a longer history than foreign assembly, but since it was largely confined in the 1960s to manufacture under U.S. licenses, there was no collision with established export policies. On the other hand, most current multinational programs in which the FRG is involved are of genuine European design. The rationale for these projects, of course, is standardization as well as the attempt to achieve economies of scale to the extent permitted by the European market. From the point of view of the FRG's arms-producing industry—and perhaps that of the federal government as well—a most attractive side effect is that the responsibility for export is blurred; furthermore, all of the FRG's partners in joint ventures pursue far more permissive policies toward transferring weapons to countries outside NATO. Thus, it becomes possible to cash in on the revenues from the export of weapons, which in part have been designed and built in the FRG but which have been sold and exported by some other country without the West German government's ever becoming involved. The extremely high

proportion of multinational weapons projects in the West German industry's development and production program, therefore, may well be due not only to military and economic considerations but also to the desire to bypass official export restrictions.⁵⁹

West Germany's advanced and major weapons programs include an unusually high proportion of multinational projects: MILAN, HOT, and Roland missiles, FH-70 and SP-70, Alpha Jet, and MRCA. Future transfers of these systems to third parties naturally depend upon the agreements that were concluded when these multinational projects were established, but unfortunately such contracts remain secret. It is not hard to imagine, however, that France and Great Britain, as traditional suppliers of weapons to developing nations and to areas of tension, have not agreed to subject themselves to official West German policy. There are even rumors about a German-French agreement requiring both governments not to impede each other's exports of jointly produced weapons and to supply nationally built components of joint systems if the other partner has accepted an export order.⁶⁰

The possible pattern of future sales of these multinational projects to Third World buyers has already been foreshadowed. In spite of the West German adherence to the UN embargo, France sold nine copies of the—otherwise not particularly successful—French-German Transall transport plane to South Africa. Another major deal of this sort is probably forthcoming: during his visit to the FRG in spring 1976, Egypt's President Anwar Sadat reiterated his country's desire to purchase 120 Alpha Jets. The FRG's foreign minister, Hans-Dietrich Genscher, commented that those planes "are not for sale in the FRG." However, this statement is by no means a veto, though a veto would have accorded with the FRG's principle not to export arms to areas of tension. It has since been interpreted to mean that Egypt could buy the planes from France without objection from the FRG and that the West German share of production of the planes scheduled for Egypt might temporarily be transferred to France. This latter plan probably is meant to mollify Israel, but it does not sound very plausible: Egypt is interested in the German close-support version of the Alpha Jet, not in the French trainers.

Conclusion: The Present and the Future

The FRG's policy on arms transfers to the nonindustrial world, unlike those of other industrialized countries has not been overly permissive, and in recent years there have been efforts to tighten the net still further. Parallel to these efforts, however, commercial weapons exports have grown, and arrangements have appeared that render the existing restrictions largely irrelevant. We thus have a mixed record: declaratory government policy sticks to established dogmas, which, in practice, have been increasingly eroded. For the federal government, this is probably not the worst solution,

since it allows an adaptation to new developments without having to revise one's principles.

The force behind West German sales of weapons to the Third World is the FRG's armaments industry. Initially, it was predominantly geared to meet Bundeswehr and NATO needs, but in a long and quiet export phase, it learned about the demand for its products and the attractiveness of Third World markets. By now, it has the instruments to exploit these markets more actively even without changes in official policy, although it would still like to see some policy changes and exerts its influence to achieve that goal. The oil embargo and the economic crunch have considerably advanced these efforts and have brought strange bedfellows—union representatives and even left-wing social democrats—to the support of the industry's demands. The federal government has thus come under growing pressures from diverse sides to adapt its norms to what is more and more becoming reality.

The issue before us, therefore, is not whether West German arms transfers to nonindustrial states will increase. They will. Instead, the issue is whether this will take place by bypassing the restrictions established in the 1960s, or within a more permissive framework of government regulations. After the narrow victory of Helmut Schmidt's coalition government in the October 1976 elections, a wholesale revision of export constraints is as unlikely as a renewed attempt to enforce the SPD's expressly declared principle to cut back weapons sales to developing nations. Instead, a continuation of the "split morals" policy should be expected, with a broader interpretation of what constitutes an "area of tension" paving the way for the transition to what previously has been referred to as an "open commercial phase." In addition, still more leeway will probably be given to transfer arrangements bypassing the traditional prohibitions.

If the Christian Democrats should return to power in the 1980 elections or after an earlier collapse of the present coalition, the process might not differ greatly. It is true that several leading politicians from the CDU, especially from the CSU, have closer ties to defense-related industries and that they have frequently supported their demands. On the other hand, it is one thing to endorse a totally permissive policy on the export of armaments when you are in the opposition; it is quite another thing to implement such a policy once in office. The CDU would also have to reckon with internal as well as international public opinion, which, so far, has been anything but favorable toward the FRG's sales of armaments to developing countries. Therefore, it seems safe to assume that a CDU-led government's policy would possibly differ in degree but certainly not in principle from the current government's policy.

Another prospect for the future concerns the fact that, before long, the FRG will be the major European source of surplus weapons. If there should be strong demand for these armaments from Third World markets

but little demand from elsewhere, the federal government will be in an unpleasant situation, since it has itself assumed responsibility for the disposal of such weapons as a result of the discouraging incidents of the mid-1960s. It therefore could not avoid—in contrast to commercial sales of new weapons—becoming directly involved again in large-scale transfers to the Third World. This might well lead to a repetition of the embarrassment over the disposal of the Bundeswehr's first-generation equipment and thus prove more detrimental to West Germany's foreign relations than the transition into the "open commercial phase" of its arms transfers to nonindustrial states.

Notes

1. United States Arms Control and Disarmament Agency (ACDA), *The International Transfer of Conventional Arms* (Washington, D.C.: Government Printing Office, 1974), Tables 1 and 2.

2. Stockholm International Peace Research Institute, *Arms Trade Registers: The Arms Trade with the Third World* (Stockholm: Almqvist and Wiksell, 1975), p. 151.

3. An analysis of West German NATO aid up to 1970 can be found in Helga Hatendorn, *Militärhilfe und Rüstungsexporte der BRD* (Düsseldorf: Bertelsmann, 1971), Chapter 3.

4. Stockholm International Peace Research Institute, *World Armaments and Disarmament: SIPRI Yearbook 1975* (Stockholm: Almqvist and Wiksell, 1975), p. 221.

5. Helga Hatendorn, "Militärhilfe im aussenpolitischen Instrumentarium der BRD und der USA," *Politische Vierteljahresschrift* 13 (1975): 374-424.

6. For a detailed account of the FRG's military assistance programs, see Hatendorn, *Militärhilfe und Rüstungsexporte der BRD*, Tables 3-6 and 9; also Stockholm International Peace Research Institute, *The Arms Trade with the Third World* (Stockholm, Sweden: Almqvist and Wiksell, 1971), pp. 308-312.

7. Hatendorn, "Militärhilfe im aussenpolitischen," pp. 409-411.

8. *Frankfurter Allgemeine Zeitung*, February 12 and 20, 1965.

9. Hatendorn, *Militärhilfe und Rüstungsexporte der BRD*, Chapter 4.

10. John Stanley and Maurice Pearton, *The International Trade in Arms* (London: Chatto and Windus, 1972), pp. 41-44.

11. Hatendorn, "Militärhilfe im aussenpolitischen," p. 414.

12. The SPD faction in the Bundestag has repeatedly launched such efforts since 1966. See, e.g., *Frankfurter Rundschau*, June 24, 1966; also, Hatendorn, *Militärhilfe und Rüstungsexporte*, Chapter 8.

13. *Süddeutsche Zeitung*, June 18, 1971; *Frankfurter Allgemeine Zeitung*, June 22, 1971. There is some evidence that this decision was taken partly to preempt an even more radical bill, drafted by the SPD, from being introduced to the Bundestag. See *Der Spiegel*, May 27, 1974, p. 65.

14. *Weissbuch 1975/1976: Zur Sicherheit der Bundesrepublik Deutschland und zur Entwicklung der Bundeswehr* (Bonn: Presse und Informationsamt der Bundesregierung, 1976).

15. Gesetz über die Kontrolle von Kriegswaffen and Aussenwirtschaftsgesetz.

Both acts are contained in *Bundesgesetzblatt 1961*, pt. 1. For an overview of the event leading up to these two laws, see Stanley and Pearton, *International Trade in Arms*, pp. 26-27.

16. For more details, see Hatendorn, *Militärhilfe und Rüstungsexporte*, pp. 44-45 and Table 20.

17. Hatendorn, "Militärhilfe im aussenpolitischen," p. 420.

18. *Der Spiegel*, May 27, 1974, p. 65.

19. *Weissbuch 1975/1976*, p. 61.

20. See Lieutenant General Horst Hildebrandt, "Aspekte des Heeres zum Kampf gegen gepanzerte Kräfte," *Wehrtechnik* 8, no. 2 (February 1976): 16-20.

21. *Wehrkunde*, February 1975, p. 101.

22. *Der Spiegel*, February 11, 1974, p. 22; *Wehrtechnik* 7, no. 1 (January 1975): 4.

23. *Wehrtechnik* 9, no. 3 (March 1977): 42-44.

24. ACDA, *International Transfer*, Table 6.

25. *Wehrtechnik* 8, no. 2 (February 1976): 22-29, 37-38.

26. *Weissbuch 1975/1976*, p. 60.

27. *Wehrkunde*, February 1975, p. 101.

28. *Ibid.*, March 1975, p. 159; *Wehrtechnik* 8, no. 2 (February 1967): 69.

29. *Weissbuch 1975/1976*, p. 106.

30. Ulrich Albrecht, *Der Handel mit Waffen* (Munich: Hanser, 1971), pp. 36-39.

31. *Wehrtechnik* 8, no. 2 (February 1976): 69.

32. *Ibid.*, pp. 54-61.

33. *Jane's Fighting Ships 1971-72*, p. 147.

34. *Truppenpraxis* 19, no. 10 (October 1975): 735-738; *ibid.*, 20, no. 3 (March 1976): 199-201.

35. *Der Spiegel*, February 14, 1977.

36. *Wehrtechnik* 8, no. 1 (January 1976): 4.

37. *Ibid.*, no. 9 (September 1975): 420-432.

38. Organizational details of the international collaboration on MRCA are reported in *ibid.*, pp. 443-449.

39. *Weissbuch 1975/1976*, pp. 98-102.

40. Ulrich Albrecht, Burkhard Luber, and Peter Schlotter, "Das Ende des MRCA?" in Studiengruppe Militärpolitik, *Ein Anti-Weissbuch* (Hamburg: Rowohlt, 1974), pp. 81-98.

41. *Wehrtechnik* 7, no. 9 (September 1975): 448.

42. *Der Spiegel*, February 18, 1974, p. 32; Albrecht, Luber, and Schlotter, "Das Ende des MRCA?" pp. 93-97; and *Die Zeit*, February 20, 1976, p. 20.

43. By the end of 1974, MBB had more than twenty orders from the Third World for helicopters BO-105. See *Europäische Wehrkunde* 24, no. 6 (June 1975): 321.

44. *Der Spiegel*, January 26, 1976, p. 26.

45. *Süddeutsche Zeitung*, February 10, 1967.

46. See the interview with Helmut Schmidt, who at that time was minister of defense, in *Wehr und Wirtschaft*, July-August 1970, pp. 388-395.

47. For more details on the role of defense-related production in the FRG's economy, see Ulrich Albrecht, "Die Rüstungsexportpolitik der BRD," in *Eingriffe in die Rüstungsindustrie*, ed., H. J. Benedict et al. (Darmstadt: Luchterhand, 1975), pp. 19-59.

48. Stanley and Pearton, *International Trade in Arms*, pp. 118-120.

49. Albrecht, *Der Handel mit Waffen*, p. 113; Hatendorn, *Militärhilfe und Rüstungsexporte*, p. 35.
50. *Wehr und Wirtschaft*, July-August 1970.
51. *Europäische Wehrkunde* 24, no. 6 (June 1975): 310.
52. *Der Spiegel*, March 15, 1976, p. 43.
53. Hatendorn, *Militärhilfe und Rüstungsexporte*, Tables 3 and 6; Albrecht, "Die Rüstungsexportpolitik," pp. 48-53.
54. SIPRI, *The Arms Trade with the Third World*, Appendix 8A.
55. *Der Spiegel*, May 27, 1974, p. 65; Peter Lock, "Rüstungsexporte und militärische Ausbildungshilfe," in Studiengruppe Militärpolitik, *Anti-Weissbuch*, p. 132.
56. *Der Spiegel*, February 11, 1974, p. 22.
57. *Ibid.*, March 15, 1976, p. 44.
58. *Wehrtechnik* 8, no. 1 (January 1976): 4.
59. Lock, "Rüstungsexporte," pp. 133-134.
60. *Der Spiegel*, October 1972, p. 29.