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'Necessary Evil:' Political and  
Economic Perspectives on  
West German Arms Transfer  
Policies

by

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'Necessary Evil:' Political and Economic Perspectives  
on West German Arms Transfer Policies

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## ABSTRACT

The recent evolution of West German arms transfer policies is related to legal stipulations, socio-economic interests, local politics, a need for anonymity in controversial dealings, and particularly to a more autonomous foreign policy. New 1982 guidelines allowed increased arms sales flexibility to conflict-ridden and strategic regions such as the Middle East. Despite government attempts to limit terrorism, international arms production remains largely unregulated. The Foreign Ministry has the prime role in controversial sales authorizations, but Germany's many interlinked private arms contractors and subcontractors, lured by relatively high profits, do most of the promotions. Local and national political factions are keenly interested in the disposition of contracts and regulations. Future arms sales will depend on Europe's and Germany's increasing foreign policy assertiveness, and on the direction of European weapons technology.

"NECESSARY EVIL:" POLITICAL AND ECONOMIC PERSPECTIVES  
ON WEST GERMAN ARMS TRANSFER POLICIES

INTRODUCTION

The German phrase, "unvermeidliches Ubel," captures the essential dilemma of the Federal Republic's arms transfer policies. It closely corresponds to the English "necessary evil," but could also be translated, "unavoidable evil." Both are apt descriptions of the German approach to the transfer of arms, especially since the 1960s.

The notion of evil associated with the weapons trade, of course, stems from the legacy of National Socialism and the image of large German arms conglomerates (e.g., Krupp) in league with Hitler to fuel German militarism (making use of slave labor in the process). Additionally, evil or at least embarrassing connotations stemmed from the 1960s, when German weapons ended up in the hands of Algerian rebels, when efforts to win African states to the West German side against East Germany failed, and when sales and military assistance to the Middle East confounded West Germany's relations with both the Arabs and Israelis. The recent rise of both secular and religious German peace and "Green" movements has brought the weapons trade under renewed criticism.

German industry generally, and the arms industries in particular, began their spectacular comeback when the Federal Republic was incorporated into NATO and allowed limited rearmament and political sovereignty in the 1950s. In a sense, then, the renewed capability to produce arms was unavoidable, and indeed pleased large segments of the industrial elite as well as other traditionalists in German society (although certain elites also objected to the diversion of scarce German labor from civil production). The perceived necessity for arms production and trade came later (critics, of course, would

argue that such developments were neither necessary nor wise), in the 1960s and 70s, as the needs of the Bundeswehr became apparent and as the Federal Republic came to play a pivotal role in European defense and economic strategies. With a limited domestic arms market but clear intent to develop well equipped armed forces and a heavy industrial base, arms exports were seen as crucial in maintaining valuable arms design and production teams. In the early 1970s as well, arms sales to oil rich states came to represent a means of recouping needed revenue and gaining influence in the resource rich Middle East. Traditionally, in international politics it is impossible to wield significant power, even at the "middle power" level, without a military and an arms industry; therefore arms sales and increased defense production were also means of buying admission tickets to the world's great power councils.

There is, then, an inherent tension in the German defense sector, perhaps unparalleled among modern industrialized states, between an urge to develop and sell vs. an urge either to avoid the sale or the responsibility for the sale of weapons. Nowhere is the cross pressure more evident than in West Germany's rise to fifth (or by various estimates even higher) rank among the world's arms exporters in the 1970s, under the most clearly articulated set of sales restrictions in the Western world -- restrictions forbidding the sale of "war weapons" to "areas of tension" and of "other armaments" if "peaceful coexistence" or German foreign relations would be harmed.<sup>1</sup> The Federal Republic developed a unique amalgam of policies and procedures which minimized government involvement in the promotion of or responsibility for weapons marketing, while making it possible for defense contractors to enter the lucrative international weapons trade, thus maintaining productive capacity. The government kept track of arms transactions, through the type of bureaucratic review and sales registry so common among Western arms exporting

states, but realized the importance of relative anonymity in the German case. Thus, perhaps the world's most elaborate network of joint ventures, co-production and co-marketing agreements with neighboring states, overseas arms production, and export of designs, plans, and licenses was devised. The widest entrepreneurial flexibility was fostered while ultimate state authority and control were maintained and notoriety minimized.

With the 1980s, however, West Germany's formidable economic and military potential has tempted leaders to be more direct and assertive about weapons sales, i.e., to take a strategic political position more fitted to the country's power base. German Chancellors have begun to assert the prerogative of selling arms, as befitting a major power, in cementing foreign relations in key regions such as the Middle East. Furthermore, recent unprecedented (post-1950s) unemployment levels have compounded already existing pressures to sell more weapons abroad, especially in the shipbuilding and armored weapon industries. Therefore, previous policy guidelines regarding arms transfers have been modified. Gone are proscriptions against sales to areas of political tension, and in their place is a generalized ban on major weapon sales outside the circle of pro-Western or Westernized states, except as might serve German national interests. Clearly then, the door has been left further ajar for sales to strife-torn regions such as the Middle East.

This study is designed to determine whether these modifications of bureaucratic regulations reflect basic changes in the pattern of German arms sales, and to detail the likely consequences for German politics. A major premise for such analysis is that West Germany's hybrid arms transfer policies link guidelines and restrictions to industrial policy, to regional economic policy, to legal and constitutional principles, to an evolving autonomous foreign policy, and to the need for relative international anonymity in



controversial dealings. The effect of each of these linkages is outlined below, in order to determine the likely pattern of future policy. Any sovereign state simultaneously pursues what might be called "welfare" and "security" functions, providing sustenance to its population as well as defense from external threats, real or imagined. Arms production and trade are intimately connected with each of these functions.<sup>2</sup> For the Federal Republic, a state whose sovereignty has emerged only slowly, the effort to promote both welfare and security through armaments production and distribution are especially controversial and fraught with political difficulties.

#### GERMAN ARMS TRANSFERS -- PATTERNS AND HISTORY

Before turning to such questions as arms sales' relations to legal frameworks, industrial and defense policy, a brief review of the growth of such sales since the 1950s is in order. Until the mid-1960s West German arms transfers consisted mainly of outdated U.S. designs, exported or donated for political influence in cold war struggle against the German Democratic Republic (GDR). With NATO membership and the development of both German industry and the Bundeswehr, German firms began to participate once again in military production, mainly as subcontractors for U.S. enterprises. West German arms production was limited by the Western European Union (W.E.U.), limits which quickly lost meaning but which have only recently lapsed. By forbidding the manufacture of capital ships and certain munitions, the W.E.U. tended to condition the types of weapons produced (such as smaller submarines) and offered on the international market.

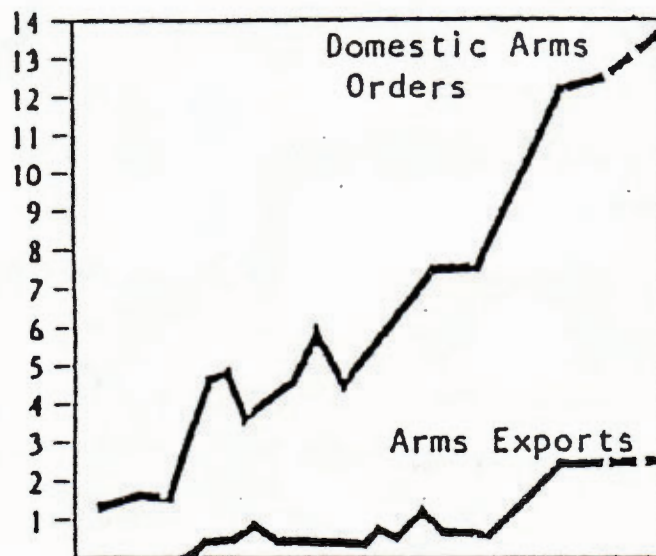
As with a number of Western suppliers, German arms exports mounted rapidly in the 1970s (Figure 1), the market shifting somewhat from Western to Third World customers. Germany's direct Third World sales also shifted as a



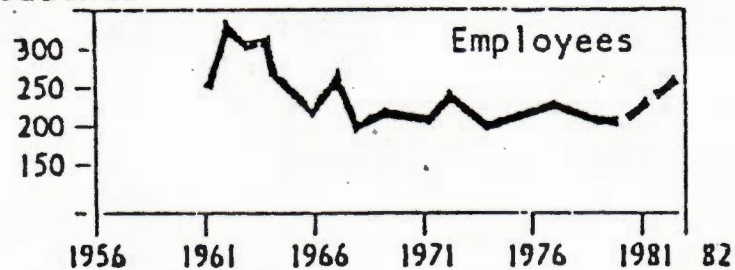
FIGURE 1

Trends in West German Domestic Arms Orders,  
Arms Exports, and Related Employment, 1956-82

Billion-DM



Thousands



Source: Thomas Nieleboch, ed., Rüstungsexport: Analysen, Daten, Stellungnahmen (Tübingen: Verein für Friedenspädagogik, 1984), p. 87, from "Antikriegstag Informationen zum Thema Frieden und Abrüstung" (Frankfurt: DGB-Bundesvorstand, 1983).

result of sales bans ("areas of tension" regulations) in the late 1960s, from predominately Middle Eastern to Latin American, African, and Asian countries. Later as oil wealth accumulated in the Persian Gulf area, Bonn's Middle Eastern sales revived, accounting for 46% of exports from 1973-77 (Africa had 27%; Latin American 21%; East Asia 5.1%; and South Asia 1%).<sup>3</sup> While export guidelines continued to stress German preferences for NATO sales, Third World sales rose by as much as three to four-fold during the 1970s (see Figure 2), with much of the growth accounted for by sales to dominant regional powers such as Nigeria, Iran, Brazil and Argentina. According to officials at the Economics Ministry, most of the increased value of Germany's war weapons sales to the Third World in the 1970s were warships, which related to concerns over shipyard jobs and defense contractor preservation.

The German government announced in 1979 that FRG firms had, in the decade of the 70s, supplied weapons, parts, manufacturing data and plans to over 70 countries, 53 of them outside NATO. Among the leading Third World customers were Iran, Egypt, Algeria, Libya, Morocco, Ecuador, Venezuela, Peru, and Colombia. Appreciable sales also went to Syria, Iraq, Zaire, Angola, Ghana, Nigeria, Somalia, Tunisia, Argentina, Brazil, Burma, North and South Korea, the Philippines, Singapore, Thailand, India and Pakistan. Equipment and parts useful in military vehicles also have been shipped -- sometimes through third countries such as Paraguay -- to South Africa. In the 1980s, German weapons, or German collaboratively produced weapons have gone as well to both Iran and Iraq (Hot anti-tank missiles), to Morocco (light transport planes and Alpha Jets) and the Cameroons (Alpha Jet trainers), to Saudi Arabia (small arms and parts), Malaysia, Indonesia (helicopters), Bahrain, Kuwait, India and Colombia (all patrol boats), among others. Obviously many of these states have been involved in on-going disputes or warfare.<sup>4</sup>

FIGURE 2

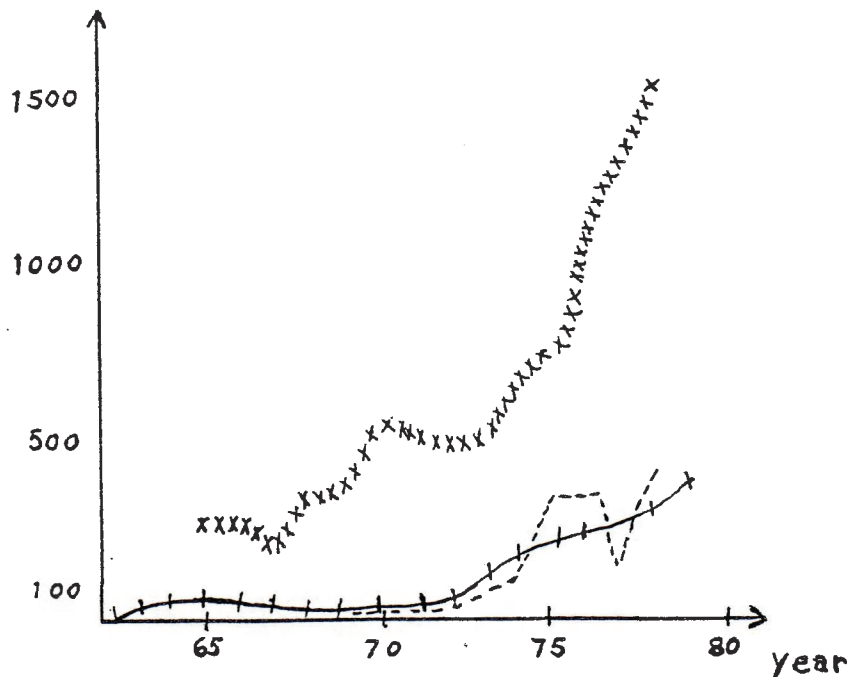
West German Arms Exports to the Third World (Three Estimates)\*

MILLION-DM, (FIVE YEAR MOVING AVERAGES: 1975 PRICES;  
YEARLY WAR WEAPONS LICENCES)

XXXX U.S. ARMS CONTROL AND DISARMAMENT AGENCY  
ARMS EXPORT FIGURES

---- FEDERAL GERMAN WAR WEAPONS LICENSES

— STOCKHOLM INTERNATIONAL PEACE RESEARCH INSTITUTE  
MAJOR WEAPONS EXPORT FIGURES



\*Multiple estimates are needed because of problems with individual arms export estimates. ACDA has understated arms transfers of suppliers such as France; SIPRI data on major weapons systems understates the imports of poorer Third World states unable to afford sophisticated systems. West Germany's own account of war weapon licenses has been included, but it excludes other types of weapons. ACDA seems to have included all types of German weapons, and may be the best estimate here -- but the general trends all point in the same direction. See the work of Edward A. Kolodziej, "Measuring French Arms Transfers: A Problem of Sources and Some Sources of Problems with ACDA Data," Journal of Conflict Resolution, Vol. 23 (June 1979), pp. 195-227.

Source: Michael Brzoska, Unpublished Doctoral Dissertation (Hamburg: University of Hamburg, 1984), p. 92 (translated from the German).

Unlike other major arms exporting countries, however, the German government's direct role in promoting such growth is difficult to pinpoint. By 1981, arms dealer Gerhard Mertins was able to claim in Der Spiegel that the greatest German weapons dealer was now the head of state (Mr. Schmidt).<sup>5</sup> Certainly arms sales growth fit the state's economic goals in promoting industrial expansion and export, and as discussed below, probably fit defense procurement and foreign policy goals as well. However, unlike the U.S., Britain, and France, no state agency (e.g., U.S. Foreign Military Sales staff in the Defense Department) was created to promote arms exports; this function was left largely to German industry. The government, often at the highest Federal Security Council (an inter-ministerial executive committee) levels, approved or disapproved specific sales, but preparation of and campaigning for such deals were not a governmental task.

German arms industries developed interests in foreign defense collaboration and sales as a way of gaining technological advances in the aftermath of World War II, and these interests intensified in light of relatively high defense industry profits (although only part of their profits came from defense production, West German defense contractors had consistently higher profit rates than industry as a whole throughout the 1970s).<sup>6</sup> In line with German military traditions, the Federal Government was reluctant to export certain sophisticated weapons outside NATO, particularly main battle tanks, and the main guns on those tanks. However, at least partly through industry lobbying in various political parties, efforts to export other varieties of arms, especially those (such as ships) produced in economically depressed areas, have drawn enthusiastic and increasingly direct government support and involvement. For instance, nearly two-thirds of the reported DM 1.5-billion in government approved arms deliveries in 1979 (excluding



collaborative production outside the Federal Republic) were ships.

The subtle relations of public and private sectors in the German arms trade are seen in each of the policy areas outlined above: law and constitutional policy; economic, foreign, and defense policy. Future levels of government involvement in such trade will be determined by international political pressures, by various interest groups' success or failure in achieving goals, or acceptable outcomes, under current arrangements, and by decisions about which arms technologies to pursue.

#### CONSTITUTIONAL AND LEGAL UNDERPINNINGS

The German Federal Constitution, as a response to the war years, explicitly prohibits actions which would threaten international peace and security. Such limitations apply to the manufacture and export of war weapons (conceived subsequently as lethal weapons directly used in warfare - such as tanks and capital ships - as opposed to associated weapons systems). The Preamble promises that the entire German nation will serve world peace, and as such has been the focus of some analysts' claims that bureaucratic regulations are vague and unnecessary, and that each proposed sale could be reviewed with constitutional principles in mind. However, the Preamble itself is also vague; Article 26 is somewhat more specific about armament limits. In order to preclude a new war industry, it specified that weapons of war could only be produced, transported, and traded with Federal Government permission. It forbade, under penalty of law, business which threatened the peaceful relations of peoples, especially that leading to offensive war.<sup>7</sup>

In view of such constitutional provisos, and with rearmament in 1955, enactment legislation was prepared. The War Weapons Control Act (KWKG) was planned as early as 1955, and implemented in 1961 with the growing political embarrassment of unrestricted overseas arms sales. War weapons were defined

and listed and licenses were required for the manufacture and sale of such items, (after 1980 a single license sufficed).<sup>8</sup> Furthermore, out of concern about terrorists obtaining weapons and the overseas promotion of arms exports to circumvent German national restrictions, the KWKG was amended in 1978 to extend controls and review procedures to export of blueprints and licenses for overseas production agreements.

A second main law, the Foreign Trade Act (AWG), was also implemented in the early 1960s, partly to enact provisions of the COCOM (Coordinating Committee on Export Controls) regulations on trade with the East bloc.<sup>9</sup> Dealing with less clearly war-related armaments and parts, the AWG also set less stringent provisions for export than the KWKG, and was more oriented toward free trade and enterprise principles. In particular, while the AWG specified armaments which must be reviewed for export, refusals could be made only if the government could identify detrimental effects of a sale. The KWKG by contrast left the applicant to prove, in court if necessary, why a refusal was unjustified.

These laws still form the basis for export restrictions by the Federal Republic, and also set the stage for the governmental enforcement regulations formulated in the late 1960s through 1971, and reformulated in 1982. "Areas of tension" notions that characterized the first set of guidelines came partly from KWKG prohibitions of sales in situations of aggressive warfare. The Erhardt Government tried to prevent embarrassing arms exports to the Middle East, and in the aftermath of the 1967 Arab-Israeli war, both main German parties joined in enunciating such restrictions. The guidelines, ultimately articulated in 1971, specified that war weapon exports outside NATO and related states would be severely discouraged, and prohibited to areas of tension. However, due to commercial and political incentives, some KWKG



weapons turned up in the midst of disputes, as in Chile during its Beagle Channel conflict with Argentina, and Iran during its Persian Gulf maneuvers and participation in Oman's civil war. AWG list equipment, subject to provisos that they not interfere with "peaceful coexistence" of nations, more frequently wound up in foreign disputes (goods from the AWG list were even sent to Israel in 1972).<sup>10</sup>

Following the revelation of submarine sales agreements with the military regime in Chile, the SPD/FDP coalition Government was pressured to clarify its approach to sales restrictions. The sales agreement, in the interest of German shipyards, had been concluded without prior consultation with the SPD parliamentary faction. Long debates ensued in 1980-81 within each parliamentary party faction, leading to a series of position papers on arms sales policy, especially regarding a rumored pending sale of advanced Leopard II tanks to Saudi Arabia. The question of warlike Arab-Israeli relations clearly brought the areas of tension restriction into question.<sup>11</sup>

Revised administrative regulations enunciated by the SPD/FDP, and carried over by the subsequent CDU/FDP Government in 1983, stressed German security needs and foreign policy interests more clearly than before, and implied German economic interests in sales as well. This opened the way for more sales and a more active security policy in places like the Middle East. As before, the new guidelines allowed basically unrestricted sales to NATO countries, although proof was requested of shipments' final destination and of "end use" documentation in private corporate transactions. In the case of European weapons co-production, a growing and popular practice which afforded Bonn relative anonymity, Bonn's formal approval was required only for equipment or components leaving the Federal Republic, and not for products finished elsewhere. Bonn retained the right to "influence" and be consulted



on such co-production exports.<sup>12</sup>

The 1982 regulations about weapons exports outside NATO had five basic provisions: (1) such exports should not lead to the development of additional capacities for export purposes (no guidelines for identifying such additional capacities are given); (2) war weapons exports "shall not be permitted unless exceptions of a general nature are laid down on the basis of particular political considerations or it is in the vital interest of the Federal Republic of Germany to issue a permit in an individual case by way of exception" (vital interests defined as German "foreign and security policy interests, with due regard for Alliance interests" -- and employment interests are not to be a valid criterion); (3) export of other armaments related to war weapons (i.e., AWG varieties) shall be permitted "to the extent that the security of the Federal Republic, peaceful relations between nations, and the foreign relations of the Federal Republic. . . are not endangered;" (4) "the supply of war weapons and other military equipment related to war weapons must not heighten existing tensions," with supplies to "countries where there is the danger of an outbreak of armed conflict. . . ruled out in principle;" (5) supplies of weapons to COCOM listed states are prohibited.

In this way the German government hoped to achieve the benefits without the stigma of growing Third World arms sales. Bonn could still hope to discourage or block sales, even of re-exported co-produced equipment, where German interests would be compromised.<sup>13</sup> However, the government could rationalize that it had no formal control of embarrassing re-exports by aggressively marketing partner states such as France (customers could not help but notice, however, that Bonn had a prior knowledge of controversial sales).

Essentially the new guidelines do not eliminate vagueness of interpretation, but rather institutionalize a case-by-case review procedure

that probably already prevailed de facto. The government has ample grounds to deny sales if its interests are threatened, but is not obliged to bar weapons transfers to states unlikely to use them immediately or for offensive purposes, even if -- as Saudi Arabia -- such states are formally in a state of war. As in the prior guidelines, and in the spirit of the 1961 enabling legislation, "war weapons" are somewhat more difficult to export than "other military equipment," or at least there is less presumption of a right to export such weapons.

#### Administration

As in other major arms exporting states, many license requests are filed in West Germany, mostly for AWG goods, but relatively few are formally denied (in 1983, 106 refusals from 48,510 AWG applications; in 1982, 150 refusals from 44,100 applications -- with about 50% of refusals stemming from COCOM regulations -- even though only 4% of total applications were for East bloc sales -- and 50% from "areas of tension" considerations).<sup>13</sup> In 1983, sales authorizations under the Foreign Trade Act amounted to DM 2.4-billion, with approximately 58% going to NATO and associated states, and the remainder going to the rest of the world (and including licenses for sales, for demonstration items to be returned later, for re-exports and warranty replacements, and for renewed licenses).<sup>14</sup> Thus despite frequent Foreign Ministry scrutiny, very few Third World sales were deemed threatening to peaceful coexistence of states or to German foreign policy.

German arms sales to Third World customers frequently are reviewed by higher political authority, though technically they need be only in the case of KWKG goods. Nearly all applications under the War Weapons Control Act (less than 1000 per year) are passed by the Economics Ministry on to the Foreign Ministry for consideration and inter-ministerial consultation, often

reaching the Cabinet or Federal Security Council level. However, the Economics Ministry offered informal advice to export applicants prior to formal application in up to 90% of war weapons sales by the end of the 1970s,<sup>15</sup> and especially controversial deals probably were turned off or modified early. Equipment also can be modified (as in designations of "trainer aircraft") so they revert from the "War Weapons" to the "Other Weapons" list.

The Federal Office of Trade and Industry in the Economics Ministry administers arms exports under the Foreign Trade Act (AWG). It has so far experienced relatively little change in the switch to the 1982 regulations, and its officials claim to treat nearly all non-NATO countries as areas of tension requiring Foreign Ministry approval for export of "A list" items, i.e., weapons (not KWKG defined "war weapons"), munitions, and weapon materiel (as distinct from atomic goods and COCOM items). The Foreign Ministry generally approves such sales, occasionally consulting the Defense Ministry for technical advice. The Trade Office requires end use certificates and customs papers for non-NATO sales, and delivery verification in NATO sales. Only the Soviet Union and South Africa are officially off limits for AWG sales, but in the latter case the Office only determines whether an item, such as a truck, was designed for military use; if not it can be exported.<sup>16</sup>

The Foreign Ministry's pivotal role in arms transfer, in contrast for example, to Britain where the Defence Ministry is central, emphasizes the importance of German political as well as economic motivations. Some observers argue, however, that political consideration is eroded by failure consistently to link exports to foreign policy goals and by economic temptation. Thus the federal bureaucracy referred every ship sale in the 1970s to the Federal Security Council because of the difficulty of deriving



standard policy even in the midst of formal guidelines. In allowing warship exports to Argentina, for example, the Foreign Ministry reasoned, wrongly as the Falklands showed, that ships were unlikely to be relevant to Third World warfare (the Argentine navy was ultimately reluctant to fight); and that the Argentine junta was reliable.<sup>17</sup> Although approvals of these naval exports predated the submarine shipments to Chile, once the Chilean sales had been allowed, it would have been politically embarrassing to deny Argentina similar exports. The reality of case-by-case decision making led to a tangled web of rationalization and reasoning from prior cases, as well as to pressures to make exceptions in economic exigency (such as shipyard unemployment).

Since German law clearly is aimed at limiting the role of an arms industry, the bureaucracy must preserve at least the semblance of political primacy; the government tried to do so in writing the 1982 regulations by denying incentives for new employment as legitimate arms export criteria. Yet there are few clear guidelines for administrators even on such questions as releasing sensitive or advanced equipment or what types of German foreign policy interests require sales vetoes (for example Leopard I tank sales were vetoed to Iran in 1969 and to Saudi Arabia -- despite other Middle Eastern weapons deals -- in 1977).

In deciding on proposed weapons sales, Foreign Ministry officials apply certain criteria, although these have not been made as explicit as in other NATO states. Among the considerations are: (1) the type of arms proposed for export -- with a reluctance to allow heavy equipment (except for ships) to be dispatched outside NATO; (2) the region concerned -- with easier sales to Asian or Latin American states (nearly every Latin state could have bought German naval equipment in the 1970s) than to the Middle East; (3) German relations with specific proposed customer states -- while the Federal Republic

purportedly seeks no major influence abroad through such exports, they are part of the perceived requirements for facilitating foreign relations and showing long term interest; (4) maintenance of industrial capacities, so as not to be dependent on foreign arms imports. In practice, a negative Foreign Ministry verdict is likely to kill a proposed sale, although the decision can be appealed inside the government and in court (an estimated 10 percent of such vetoes are carried to higher governmental levels).<sup>18</sup> Deliberations can, of course, sometimes be complicated by third country pressures, as when the U.S. and Israel both oppose proposed German exports to Saudi Arabia.

The Federal Government therefore has security, political, and economic interests in defense exports, including international political interests in at least semi-autonomous military capabilities. It promotes such interests mainly indirectly by encouraging company marketing and co-production approaches. Occasionally Bonn becomes more direct, however, as in providing loan guarantees for private banks underwriting arms export deals through the government Hermes commercial credit guarantee agency. In contrast to the vigorous government backed financing efforts of the U.S., Britain, and France, Hermes generally is barred from assisting in defense sales. However, key exceptions have been made in the late 1970s and early 80s mainly for ship sales. Hermes-backed military exports were authorized even to such areas of tension as Turkey and Argentina, as well as Malaysia (construction of a military garrison, with no security deposit required because of Malaysia's raw materials and good repayment prospects), Oman (construction of a marine port), and Saudi Arabia (military airport construction).

Although officially German military attachés abroad cannot help promote sales, once deals are made, the embassy is instructed to assist in facilitating such commerce; reportedly attachés aided in negotiating the sale

of submarines to India in 1981-82. Unlike other exporting states, the general German government practice is not to issue memos of understanding (MOU's) to stand behind the goods and terms of defense exports; however, the pressure has mounted and in some cases the Federal Government has made such undertakings.<sup>19</sup> The highly publicized travels and negotiations of both Chancellors Schmidt and Kohl also have involved the Chancellery in arms sales promotions much more clearly than before.

#### INDUSTRIAL AND ECONOMIC POLICY

The tension continues between legal provisions aimed at limiting the arms trade and political or economic pressures to expand such trade, with an increasing popular conception in Germany that economic incentives are winning out. However, this premise must be examined carefully from at least two perspectives: (1) whether economic interest groups are gaining dominant influence in arms export decision-making; and (2) whether it is even possible to isolate economic motivations for German arms transfers.

In order to understand the economic side of West German arms transfers, the post-war history and structure of the FRG defense industry must be reviewed. After the war, German designers had remained active in foreign countries -- setting a precedent for today's considerable multi-national production. They went back to work in the Federal Republic during four phases of FRG arms production: an initial limited phase, mostly for export in the mid-1950s; a second also modest phase of limited technological capability in the late 1950s, with upwards of 60% of German arms still imported; a third transitional phase in the 1960s, with increasing but still sporadic German technological development -- honed in producing small destroyers, the Lockheed F-104, and the Leopard I tank; and the fourth phase of continued technological emergence, albeit frequently in multi-national co-production in the 1970s and



80s. Significantly by 1975, 80-90% of the Federal arms procurement budget was going to domestic manufacturers, up from 60% in 1965.<sup>20</sup> While some of the technology was borrowed from neighbors and allies, West Germany was definitely becoming more self-sufficient in arms and gaining international manufacturing stature.

The Federal Republic has neither achieved nor even sought full military production autonomy. German industries often import key weapons components, including sophisticated air engines and electronics. But like other European governments with limited domestic markets and yet fostering national armed forces and weapons production, Bonn faces dilemmas for which arms exports are seen as one solution. The Federal Government has promoted industrial consolidation and mergers, especially in the aircraft industry, to preserve viable domestic manufacturers. Furthermore, partly to avoid slipping in technology, the government ignored poor economic prospects and promoted involvement in international collaborative projects such as the British-Italian-German Tornado fighter aircraft. While wishing to avoid excess production capacity, the government also has moved to keep production lines busy and marginal costs down by authorizing exports. Bonn's motivation is not strictly economic, however; the government seeks to preserve a productive base for strategic-political autonomy, and as seen below, sporadically imposes foreign policy priorities as well.

While political analysts have pointed to a lack of general foreign policy direction in the arms export rules and guidelines issued in 1971 and 1982, economic analysts also have pointed to the lack of systematic objectives in German defense budgeting. The budget structure can be traced to 1815 and the Prussian past. Planning by objective has not been typical of Bonn's defense procurement process. In particular, the choice has not yet been made firmly



between a coordinated Western or European procurement approach, or a domestic German financed defense, with expenditures linked less to fiscal policy than to actual defense needs.<sup>21</sup> Hence the Defense Ministry's relatively low profile in the arms design and export process should come as no surprise.

Both the structure of the FRG arms industry and defense procurement processes promote concentration and diminish competition among producers. Defense manufacturing is at once diverse and extensive, yet concentrated. Large conglomerates, often controlled by holding corporations such as the Flick group, dominate the defense economy. Manufacturers strive not to become overly dependent on arms production, so that a relatively large number of firms (an estimated 20,000; the Bundeswehr itself has 1085 German suppliers and the Leopard II alone has about 1500 subcontractors) operate as contractors and subcontractors for at least a portion of their business. Because so much production is done abroad, however, the number of jobs produced in the FRG remains moderate (see Figure 1), with an estimated 240-300,000 workers (about two percent of the total workforce) in defense industry, of which 45,000 are related to export, accounting for about one percent of GNP (two percent of manufacturing output). Only two to four percent of defense contracts are awarded through competitive bids, and then only in fringe defense production such as trucks and naval support vessels.<sup>22</sup> Thus, the Federal Government tends to sprinkle contracts to keep contractors viable and busy.

Few major contractors are highly dependent on military production, with the exception of shipyards, the major Leopard II contractor Krauss Maffei, and aerospace firms; such as Messerschmitt-Bolkow-Blohm (MBB) (shipyards and Kraus-Maffei over 70% and MBB 56% dependent). Major artillery and munitions producers such as Rheinmetall, Nobel, Thyssen, Krupp, Siemens, and Benz have less than 30% (in fact except for Rheinmetall, less than 12%) of turnover in

military contracts. Defense firms are left relatively on their own to design new systems; in 1982 they invested about 6.4% of turnover in research and development. Less than 10% of the federal research budget (8.8% in 1982) goes to defense R & D, and only one percent of that to defense technology -- though this can entail significant amounts in particular arms projects and in calculating profit margins. Defense budget R & D allocations were scheduled in 1984 to rise about one-third, however, particularly because of NATO needs.<sup>23</sup>

Certain portions of German industry are more dependent than others on government purchases; the proportion of military contracts to total sales varies from one to two percent in the mechanical and electrical engineering fields, to five percent in ships, and to 60% overall in aerospace.<sup>24</sup> The government aims "...to programme and schedule the requirements of domestic defence material and services in a way which will enable industry to plan and utilize their capacities on a continuous basis" but also to avoid "overabundance" of contracts leading to excess capacity and cost increases.<sup>25</sup> Therefore, Bonn maintains considerable interest in retaining arms design and production teams -- hence its non-bid contracts to push for control of capacities. With so much German defense production abroad, under multi-national co-production, sub-contracts, and license arrangements (as in reported dealings with Spain and Egypt for helicopter and tank production facilities for the Middle East), "learning curve" improvements in domestic technology and cost reduction are relatively difficult. The greatest cost savings are expected in production of ships, small arms, an infantry equipment.<sup>26</sup> These are likely to remain the sectors promoted for domestic German production, while aerospace and related areas, where German technology is behind, will find German firms in foreign co-production in order to catch

up.

While the government officially stands at arms length and lets companies arrange and promote sales, the relations are far more intimate and complicated. Unlike Britain and France, the Federal Republic generally owns no arms industries.<sup>27</sup> However, German state (lander) governments and their banks have financial interests in and own shares of certain regional industrial concerns doing military business. This is especially true of the North German shipyards, the Black Forest area, and Bavarian government ties to MBB. Therefore, political leaders, such as F. J. Strauss of the Bavarian CSU party, take keen interest in Federal defense and regulatory policies, such as anti-trust decisions on issues like the proposed sale of Krauss-Maffei in 1984.

The intricacies of the tank industry and its future illustrate the pressure for and types of governmental involvements in defense production and export. Clearly, after 1984 the politically troubled and troublesome Flick holding company (accused of improper political donations to top German party leaders, parliamentarians, and ministers) could no longer be awarded major defense contracts. Its Bavarian tank subsidiary, Krauss Maffei, was put up for sale, and the Federal Government became increasingly concerned that this facility might end up in the hands of another major tank contractor such as Krupp or Diehl, or of MBB -- thus leading either to a tank or aero-armor cartel. Even the British Vickers concern was reportedly interested in purchasing Krauss Maffei, a report which may have helped convince the German Defense Ministry to drop its opposition to proposed domestic mergers. Industrial leaders and influential politicians such as Mr. Strauss entered negotiations with Flick and among themselves to arrange a purchase that would satisfy nationalist and strategic anti-trust criteria, and yet line up

purchasers acceptable to powerful regional interest groups as well.<sup>28</sup>

Although the government would like to keep alternate suppliers available and at least somewhat competitive, German arms production is dominated by relatively tight circles of firms, often all working on aspects of the same project with often inter-connecting directorates, and powerful political and regional backers. Negotiations among firms and between government and industry have to preserve competitive appearances, to satisfy party and regional interests, and to offer appealing profit prospects in either military or civilian production, or both.

Because so many German firms dabble in the defense business, and relatively few rely totally on it, arms exports are increasingly important in sustaining these relatively marginal production capacities. Until recently, few defense industrial organizations have formally lobbied inside the government, but links between individual firms and key ministries have long existed. Industry, and in some cases union pressure is brought to bear on selected MP's, parliamentary committees, or regional party leaders. Metal and heavy industry unions generally oppose expanded arms exports,<sup>29</sup> but, trade union participation on corporate boards in codetermination schemes has prompted union and SPD support for specific export deals. German industry has been boxed in by uneven cyclical procurement patterns for Bundeswehr needs; very little equipment is designed strictly for export (mid-sized U-boats and light frigates excepted), so that mainly proven designs are exported. Thus the export business depends on Bundeswehr decisions and on the budget; and exports are seen as a substitute for scarce domestic procurement funds to keep production going.

Defense budgets in recent years have been relatively tight, with comparatively little government R & D support (and little return to the



government from export sales). With so many contractors, German defense industry capacity is highly developed, especially in comparison to other European countries. Industry interest in setting up licensed overseas production facilities reflects an awareness of tight budgets, of relatively strict export rules, and of the prospect that Third World arms markets will be increasingly saturated and nationalistic in future. Having a share of the Third World's own arms production will promote continued German profits.<sup>30</sup>

Focus on the increased role of government in German arms exports should not obscure the fact that private industry has been the main impetus for the growth of foreign defense sales. Technical excellence in products and strong follow-up services have attracted customer interest. Relatively high profits have lured business interest. Regional interests have lobbied for government support of defense production. Furthermore, West Germany offers some alternative to dependence on a superpower for arms supply.<sup>31</sup> Because of ties to the U.S., the Federal Republic cannot offer as complete an alternative as can France, but in tandem with France in major projects, and with a more accepted NATO supplier role than France's (the latter having left NATO's military commands, while Germany still subcontracts for much U.S. arms production) Germany offers certain Third World customers the best of both worlds.

The fact that arms sales are part of the larger German industrial boom of the post-war period is another reason why government has been drawn to support them. As Defense Minister in the early 1970s, Helmut Schmidt opposed expanded arms exports and the defense industry aid as contrary to German national and Bundeswehr interests; as Chancellor in the late 1970s he came to support such measures both for specific economic/diplomatic benefits and as a symbol of growing and crucial West German industrial, and therefore political power.<sup>32</sup>

## FOREIGN AND DEFENSE POLICY INTERESTS

Over the post-war period, the Federal Republic has evinced tentative but increasing foreign policy assertiveness. Stirrings of this were seen in the early 1970s as Germany initiated Östpolitik, albeit within alliance oriented diplomacy, and a more European than American oriented Middle Eastern policy. West Germany sought refuge in the relative anonymity of European Community and NATO foreign policy pronouncements on key issues. The OPEC oil embargo of 1973 sent a key signal to Bonn through the official (though ineffective) boycott of the Netherlands and the key Rhine port of Rotterdam. As they subtly modified previous strongly pro-Israeli positions, German leaders such as Herr Schmidt came to believe even more firmly that Germany should never stand alone on controversial issues, but rather meld with the European Community. The Federal Republic would be Europe's driving economic, and therefore ultimately, political force.

As a major economic and modest military power, Germany could not be shut out of major strategic councils. However, when confronted by erratic U.S. strategic policies in the late 70s and early 1980s, by dangerously unstable conditions in Poland, and by new Soviet Euro-strategic systems, Helmut Schmidt reflected the dilemmas and tendencies of German statesmanship. He tried to pressure his American allies during Carter's years; he dropped hints of greater German self-reliance in military fields; and even out of office in 1984 he floated ideas of cooperative strategic ventures with France (ideas which under Mitter and have drawn hesitant but increasing French interest). All of this, plus West Germany's conspicuously assertive role at various Western summits since 1979 and during President Reagan's trip to Bitburg in 1985, indicate that the Federal Republic is at once vigorous and forceful, and yet hemmed in both geographically and strategically so as to have drastically

limited options.

Recent negotiations for German arms sales to Saudi Arabia also reflect these policies and dilemmas. In fact, Chancellor Kohl tried to justify such sales in the face of vigorous Israeli objections in 1984 by saying that Germany has become a major power and is entitled to major power prerogatives such as selling arms to customers of its own choosing. His Israeli hosts, however, were quite adept at reminding Germans of their special historical status. Quietly over the years, West Germany had built up an economic, political, and even military presence in the Middle East -- ranging from heavy multinational corporate involvements in Iran under the Shah, to anti-terror and security assistance to Saudi Arabia (for example at the Grand Mosque in Mecca following the siege there in 1979). However, direct German military involvement with Arab states remained politically highly explosive, so that Bonn had to hedge on the kinds of training and advice that other arms suppliers normally provide.

Middle Eastern oil supplies were crucial to West German interests in the 1970s, only to recede somewhat with the British North Sea gush of the 1980s. Saudi Arabia also quietly became West Germany's largest foreign creditor and non-Western trade partner.<sup>33</sup> Thus, the Schmidt Government was interested in pleasing Riyadh as much as possible when sales of advanced equipment like the Leopard II were first discussed in 1979-80. In a sense, the Germans may have been flattered that the Saudis, adept at accepting the West without becoming Westernized, were so interested in German technology.

The political fallout from German-Saudi discussions caused Bonn to back away from Leo II deliveries (if indeed there had ever been a serious prospect of such deliveries as opposed to lighter systems), but also to state an intention to provide other types of equipment. As an indication of continued



political ambitions, the Kohl Government announced a special strategic relationship with Saudi Arabia, embodying "cooperation in the scope of defense." In defending such controversial ties in the Bundestag, Foreign Ministry State Secretary Müllemann noted that Saudi Arabia is not only helpful in regional security and one of the primary sources of oil (according to the German defense White Paper of 1983, one of the key measures of Western security), but also agrees to make important financial contributions to the international currency system.<sup>34</sup>

Thus, Bonn's tendencies to mix economic and political interests and foreign military relations shows up in arms sales decisions and evidently in definitions of "vital" German interests meriting arms exports to conflictual regions. Indeed German worries about American leadership capabilities and the disability of the U.S. Rapid Deployment Force are also implied in a more active Middle Eastern policy; in words of the 1983 defense White Paper: "In the gulf region which is existentially important for Western Europe, the USSR has better possibilities of military grip than the USA." In a sense the training and modernization of Gulf state armies are seen as a German contribution to Western defense, within a NATO context in which Germany would also relieve the U.S. of burdens in Europe and financial commitments in time of crisis.<sup>35</sup>

### Conclusions

Since the 1973 oil "crisis," stirrings of a "Europeanized" foreign and defense policy have been heard. As the 1990s approach, decisions in this regard are likely to become unavoidable. If Europe is to remain in the arms business, for instance, its industries will have to win a larger share of NATO defense contracts. A key struggle is likely in the "fighter of the 90s" decision to replace the Phantom. Already European arms manufacturers and

governments have agreed to produce a joint fighter, but haggle over joint production of such a weapon, with each country battling for a larger piece of the plane. In addition, France and Germany seem to disagree about the export markets for a new fighter design -- with Paris preferring a Third World export push, and Germany opting for NATO and Europe. The outcome, therefore, will possibly be an over-expensive and underperforming aircraft. European governments must have greater control of Western defense procurement and planning decisions if such projects are to be feasible even with heavy government subsidization. Along with public unease over U.S. military strategy and judgment, this is likely to contribute to irresistible pressures for a more independent Euro-defense and foreign policy.

West Germany is likely to be caught up in the very center of these debates and demands. The joint Franco-German decisions of May 1984 to build 427 new anti-tank helicopters and create a studygroup on a possible joint military observation satellite are early harbingers of such developments, and a sign of renewed Franco-German arms collaboration (no new designs had been undertaken since the 1960s).<sup>36</sup>

Even as more active German defense and arms export efforts can be expected in the 1990s as a result of these pressures, we must also remember the legal and constitutional, as well as political, limits to such policies. In February 1984, FDP representative Burkhard Hirsch indicated that,

Historical responsibility, [regarding the Constitution] also means not to deliver weapons to countries which are in a state of war. That is principally valid in all cases without exceptions, and especially with regard to deliveries to the Near East. Such deliveries would not only be in tenuous relation to the "Principles for the Export of Weapons" [of 1982] -- I even think they would violate these principles -- but especially they would be against the valid KWKG (Arms Export Control Act).<sup>37</sup>

Yet so far, limited sales to Saudi Arabia have not been challenged legally, and the government tries to foster acceptance of the view that arms can be

sold to states in conflict as long as the conflicts are not exacerbated by the sales, however this might be ascertained. Any German government would have to be cognizant of legal restrictions and potential litigation in future arms exports, unless either the Constitution or the law were further amended.

Partly because they reflect the still ambiguous state of German foreign policy, Bonn's arms export policies remain ambiguous as well. Three levels of export policy have been noted by Brzoska: (1) the level of declarations, expressed in the official rules and regulations of 1971 and 1982; (2) the bureaucratic level, embodied in the customs and practices of agencies granting licenses; and (3) the "real" level, where the most important motivations of officials are reflected in overall patterns of sales. At the third level, the more subtle practices of co-production and export of licenses and blueprints were devised so that business and sales could proceed despite formal restrictions. Brzoska argues that these "real" policies are determined largely by economic interests, since the Federal Government leaves the acquisition of export orders to private industries.<sup>38</sup> Brzoska reasons, for example, that if Bonn were mainly interested in preserving strategic productive capacity for defense and foreign policy purposes, one shipyard would suffice. Yet Germany strives to maintain two, responding to socio-economic pressures concerning employment.

However we have seen that government interests in the export process are more complex, reflecting a growing political assertiveness as well as interests in sustained arms production capacities and worries over the consequences of arms falling into the "wrong" hands. For example, since 1978, the government must be notified and must approve the export of designs and assembly plans; and since 1982, Bonn also licenses exports of weapons in privately negotiated multinational co-production (in addition to



governmentally negotiated co-production). Jobs are a concern, especially in certain fields of defense production and in depressed regions, but the Federal Government also maintains multiple producers to avoid complete dependence on one contractor for major defense equipment.

In a variety of ways, therefore, Bonn's political and strategic stakes in defense production have grown, and are likely to grow further as NATO sorts out its future. For the Economics Ministry arms exports are indeed equivalent to all other exports; for the Defense Ministry arms exports are a "necessary nuisance" if arms contractors are to be maintained; and for the Foreign Ministry, and lately for the Chancellery, such exports are part of the panoply of factors supposedly securing foreign influence in NATO and the Middle East. In fact the arms trade contributes relatively few jobs inside Germany (though jobs in key locations and at key moments), and in fact Germany's alliance and Middle Eastern influence are not clearly enhanced by this trade. But the accepted wisdom in Bonn sees arms transfers as the necessary evil.

The point here is not that Bonn has carefully associated arms transfer policies with well defined and ordered political priorities. The arms business continues to have a momentum of its own, entailing both welfare and security (provision for the Bundeswehr) imperatives. Rather, the Federal Republic has more or less stumbled into using arms in connection with a more assertive foreign policy. Arms increasingly are seen as one set of policy implements, offered in part to shore up relations with cooperative states.

Israeli opposition represented a set-back for Germany's efforts to link arms sales to diplomacy in the Middle East, but Israel is a special and rather unique case for Germany. German arms diplomacy had to go back under the cover of co-production, joint ventures and overseas manufacturing licenses, and Bonn attempted unsuccessfully to foster a unified EEC or NATO Middle East arms

sales approach in 1984. But the interest in shoring up favored Middle East powers remains, although somewhat tempered lately by plentiful world oil supplies. German leaders are likely to revive efforts to coordinate Euro-arms sales diplomacy in the future.

The Federal Republic indeed lacks the power to exercise important military influence across continents, and lacks key interests outside the Middle East to spur a global strategic approach to arms sales. However, German interests in such far flung areas as Malaysia, Brazil, and Argentina indicate that military exports in general are likely to be used in building cooperative relations. German business interests are likely to continue to dominate FRG weapons trade in most areas, but as a pivotal European power with independent security concerns, Bonn will feel pressure to assert more autonomous defense agreements abroad, and participate in joint European approaches, especially in regions designated as high security priorities.

Both Lock and Brzoska suggest that with the end of NATO and Bundeswehr procurement contracts in the late 1980s, German industries, dabbling as they frequently do for a portion of profits in defense production, will feel, and pass on to the Federal Government, pressure to provide renewed orders and facilitate foreign sales. Because of technological advantages and aspirations, these firms are likely to persevere in the tank and aerospace fields -- in fact likely to integrate these sectors in larger cartel-like arrangements so that both offensive and defensive air and ground systems can be produced. West Germany will be hard-pressed to sell increasingly sophisticated and expensive systems abroad to increasingly nationalistic customers without consortia of producers and buyers. German firms are likely to promote such joint ventures, and also to move in the direction of simpler "high tech" arms (those featuring electronic guidance and designed for use

against or in conjunction with complex systems such as tanks, ships, or planes) both for NATO and the Third World.<sup>39</sup> Already MBB reportedly has been interested in branching out into naval research (as well as tanks, aircraft, and both offensive and defensive missiles) in designing unmanned guided submarines and minesweepers.<sup>40</sup>

The new German arms transfer guidelines of 1982, therefore, reflect government efforts to promote more flexibility in meeting political and economic pressures for and against military exports. They removed an obstacle to such exports, but the market for sales may not be as lucrative as expected. They responded to concerns about soaring unemployment, but military exports have yet to make a significant dent in that unemployment. The German government is positioned to link arms sales to foreign policy aspirations, but the outcome of early tentative moves has been disappointing. Future German foreign policy is likely to be based on leadership of Euro-diplomacy, and on possible further openings to the East. As such, the German arms trade will become an ever more multi-national undertaking with increasing need for new regulations, either in the European community or by its separate members, to coordinate and control its impact in the Third World and in competition with the U.S.

Unless major European powers are ready to import or cut back on their armaments, either Europe's weapons competition with the Americans must become keener, or agreements with Washington on joint ventures must be achieved, i.e., obstacles particularly in the U.S. Congress must be overcome. The U.S. appears headed toward more esoteric weapons technology (e.g., the so called Strategic Defense initiative and non-nuclear strategic weapons).<sup>41</sup> European leaders, from Thatcher to Kohl to Craxi, have expressed interest in and/some concern about these ventures. The stakes in being left behind technologically

appear great. Either Germany, Britain, France, and Italy will be relegated to the "minor leagues" of arms technology -- which as Brazil, Israel, South Africa and others show can still be quite lucrative, or they will strive to become partners or rivals in the American enterprise.<sup>42</sup> If they choose the expensive, research oriented, sophisticated technology path, their arms sales will likely be directed increasingly toward the economically advanced parts of the world. In this case there would appear to be no need further to liberalize arms export laws or regulations (except perhaps on the exchange of technologies). If on the other hand, Germany and its neighbors choose the less costly, simpler weapons path, which would include guided defensive (anti-tank, anti-ship, anti-aircraft) systems, they will look ever harder for Third World customers and will be likely to remove restrictions on aggressive overseas marketing. It would appear that the technological crossroads, and government's commitment to the arms business are the keys to the Federal Republic's future arms export policies.



NOTES

1. For estimates of Germany's rank in arms exports, see the sometimes conflicting testimony in "Öffentliche Anhörung von Sachverständigen zum Thema Entwicklung und Rüstung" Stenographisches Protokoll (Bonn: Deutscher Bundestag, 18th Sitting, February 22, 1984). On the premises of export restrictions, see also Thomas Nielebock, ed., Rüstungsexport: Analysen, Daten, Stellungnahmen (Tübingen: Verein für Friedens-pädagogik, 1984) pp. 35-37.
2. Edward Kolodziej, remarks at Annual Meeting of the International Studies Association, Washington, DC: March 1985.
3. Arms transfer patterns are indeed difficult to measure, as the government publishes no overall totals, and often does not count re-transfers of weapons assembled outside the FRG. Thus, some weapons components are counted as exports to NATO partners, yet are assembled by those partners and re-exported to the Third World without appearing in official German figures (though reportedly the U.S. Arms Control and Disarmament Agency, ACDA, and the Stockholm International Peace Research Institute, SIPRI, now try to account for these in their reports). Export of production licenses, in which Germany leads among European arms producers, also does not generally appear in the totals. Furthermore, the German legal distinction between "war weapons" and "other armaments" creates separate sales lists. These distinctions are of course additions to the familiar problems of sorting the arms trade registry differences of SIPRI, ACDA, and national data sources. See Eckehart Ehrenberg, Der Deutsche Rüstungsexport: Beurteilung und Perspektiven (Munich: Bernard and Graefe, 1981), pp. 19-20.
4. Herbert Wulf and Ralf Peters, Politik, Sicherheitspolitik, Rüstung und Abrüstung: Einführung und Kritik (Frankfurt: Moritz Diesterweg, 1982), p. 80; Michael Brzoska and Herbert Wulf, "Offensive im Rüstungsexport," in Aufrüsten, um abzurüsten? Informationen zur Lage (Hamburg: Studiengruppe Militärpolitik/Rowohlt, 1980), pp. 259-79; Ehrenberg, op.cit., pp. 23-24; Hintergrund "Der Rüstungsexport der Bundesrepublik in die Dritte Welt" Part II (Hamburg: German Press Agency, August 6, 1982), pp. 5-10.
5. Wulf and Peters, op. cit., p. 83; Joachim Krause, "Die Rüstungsexport-Politik der Bundesrepublik Deutschland," Europa-Archiv, 12 (1981), p. 366-67; Mike Dillon, "Arms Transfers and the Federal Republic of Germany," in The Gun Merchants: Politics and Policies of the Major Arms Suppliers, ed. by Cynthia Cannizzo (New York: Pergamon, 1980), pp. 119-20; and Gale A. Mattox, "The Limits of FRG International Involvements: The Debate of German Arms Sales to Saudi Arabia" (paper presented to the Annual Meeting of the International Studies Association, March 1982).
6. It has been argued that higher levels of state subvention, rather than greater efficiency, is the reason for higher defense industry profits. See Werner Voss, Rüstungswirtschaft und Profite, in Rüstungs oder Sozialstaat?, ed. by Jorg Huffscheid (Köln, 1981), pp. 81-94; and Martin Below, "Rüstungsprofite in der BRD," Berichte (East Berlin Institute für Internationale Politik und Wirtschaft, May 1980), pp. 46-49.



7. Ehrenberg, op. cit., pp.85-107; and Michael Brzoska, Unpublished doctoral dissertation (Hamburg: The University of Hamburg, 1984), pp. 106-115.
8. Efforts to deny a proposed sale to rightist Chile revealed that the government might have had to reimburse a contractor whose export license was denied after export manufacturing permission had been granted. Brzoska, dissertation, op. cit., p. 111-112.
9. The AWG's three parts deal with: (A) weapons, munitions, and weapon materials and components; (B) nuclear materials; (C) strategic COCOM goods (such as alloys and bearings) and dual purpose goods (with civilian and military applications). Ibid., pp. 121-135.
10. Ibid., p. 151; and Ehrenberg, op. cit., p. 91.
11. In the midst of the parliamentary wrangle over revision of the guidelines, the Schmidt government essentially shelved the Saudi tank sale, though it subsequently reemerged as a rumored overseas licensed production deal through either Egypt or Spain. Schmidt also agreed to look for alternate customers in the Chilean submarine sale, but would not allow the Bundestag either a parliamentary veto or a formal consultative status in future sales. Hence, the Bundestag -- like other European parliaments -- lacks the power of inquiry and notification regarding arms exports legally available to the U.S. Congress.
12. This provision institutionalized a procedure devised in secret with France in 1972, essentially not to question French re-exports of co-produced equipment unless vital German interests were threatened. In this way, Germany could not be blamed directly if advanced missiles wound up in Chad, Libya or Iraq (as they subsequently did). Political Principles adopted by the Government of the Federal Republic of Germany Governing the Export of War Weapons and other Military Equipment (Bonn: April 28, 1982).
13. Total license requests can be misleading, however, since a certain percentage are renewal requests (licenses run for two years). Two types of licenses are granted -- one for a single sale authorization, and the other for 12 months of continuous supply. Thus, more than one license could be involved in a single deal.
14. Personal confidential interview with government official (Frankfurt: July 1984).
15. Brzoska, dissertation, op. cit., p. 147.
16. Tank carriers arrived in Iran during its war with Iraq because technically they had been designed as civilian vehicles.
17. Brzoska, "Rüstungsexportpolitik in der Bundesrepublik: Die Ungeliebte Sonderrolle," Politik und Zeitgeschichte (Bonn: Bundeszentrale für Politische Bildung, May 5, 1984) pp. 20-22; and Regina Cowen, "West German Arms Transfers to Sub-Saharan Africa: Commercialism versus Foreign Policy," in Arms for Africa: Military Assistance and Foreign Policy in



the Developing World, ed. by Bruce E. Arlinghaus (Lexington, MA: D.C.. Heath, 1983), pp. 165-69.

18. Technically, German courts can intervene in the process at the behest of weapons dealers wrongly denied export licenses, but only one such case has been brought in the last eight years. Exporters have established on-going consultative relations with the executive bureaus responsible for approving sales, and have learned generally what types of customers will be acceptable. The courts recently have heard cases where illegal exports allegedly were made without license. The most notorious of these has been the prosecution of four Rheinmetall executives beginning in 1981 for stating fraudulent export destinations for arms which would up in "regions of tensions" such as Argentina (before the Falklands war), Saudi Arabia, and South Africa. While company executives argued that provisions of the law and implementing regulations were unworkably vague, the legislation and rules at least formed the basis for an important prosecution. See the Frankfurter Rundschau (Aug. 19, 1983), pp. 1-2; and Frankfurter Allgemeine Zeitung (Aug. 26, 1983). The case remains pending. Israeli papers carried stories in 1984 of Rheinmetall weapon supplies, through a Swiss affiliate, to such Middle Eastern states as Syria and Iran. See Frankfurter Rundschau (Feb. 24, 1984). It was estimated in the Bundestag that between 1978 and 1982, 227 persons were convicted of violating provisions of the War Weapon's Control Act, and 53 cases of export (two of "war weapons") without proper license were dropped before conviction as minor offenses. Deutscher Bundestag (Bonn: May 25, 1984), pp. 5087-93.
19. Personal confidential interviews with MP's of the SPD, CDU, and Green Parties, with an interest group official, and with E. Ehrenberg (Bonn and Frankfurt: July 1984).
20. Brzoska, "The Federal Republic of Germany," in The Structure of the Defense Industry: An International Survey (London: Croom, Helm, 1983) pp. 111-13; and Carola Bielfeldt and Peter Schlotter, Die Militärische Sicherheitspolitik der Bundesrepublik Deutschland; Einführung und Kritik (Frankfurt: Campus Verlag, 1980), pp. 69 and 91-96.
21. Lutz Kollner, personal interview (Hamburg: July 1984).
22. On the foregoing figures, see Brzoska, "The Federal Republic of Germany," op. cit., p. 117; Cowen, op. cit., p. 172; John Tagliabue, "Bonn Takes New Look at Arms Export Curbs," New York Times (September 3, 1983); Jess Lukomski, "German Arms Makers Want Curbs Relaxed," Journal of Commerce (Oct. 27, 1981); and Umfrage über die Kapazitätsauslastung in der Rüstungsindustrie der Bundesrepublik Deutschland (Bonn: Vereinigung für Friedens und Sicherheitspolitik (October 1981).
23. Albrecht Nürnberger, "Die Deutsche Rüstungsindustrie," Hintergrund, #3095 (Hamburg: German Press Agency, Jan. 1984), pp. 3-16; Brzoska, dissertation, p. 225; and Rudiger Moniac, "Der Verteidigung wird wieder grossere Bedeutung beigemessen," Die Welt (July 6, 1984), p. 4.
24. Brzoska, dissertation, op. cit., pp. 36 and 210-25; and Peter Lock, personal interview (Hamburg: July 1984).



25. The Security of the Federal Republic of Germany and the Development of the Federal Armed Forces (Bonn: Ministry of Defense, 1979), pp. 36-37.
26. Brzoska, dissertation, op. cit., p. 225; Wehrdienst (January 9, 1984); and EPD-Entwicklungspolitik (October 19, 1983).
27. An exception is the Fritz Werner concern, which produces small arms, sets up factories overseas, and consults under secret contracts in various foreign countries. It was nationalized after the War to keep it in business, and made part of the larger DIAG industrial and service group. Fritz Werner includes a holding company, backed by the government's Berliner Industrial Bank and other sources, and has spun off numerous subsidiaries in both military and civilian fields. It is evidently run along commercial lines, but gives the Federal Government a potential means of intervening in defense policies abroad. During the Shah's reign it had over DM 2-billion worth of contracts in Iran for munitions and machine gun production. See Der Volkswirt (Frankfurt: Nov. 19, 1965); Financial Times (London: Sept. 24, 1964); Wehrdienst (July 11, 1983); Wulf and Peters, op. cit., p. 83; and Brzoska, "The Federal Republic of Germany," op. cit., p. 131.
28. A consortium of firms evidently was formed whereby MBB would participate only through its subsidiary RTG Raketentechnik, which with Diehl (in Nuremberg) would hold just under 25% of the consortium; Bavarian industrialist Burkhardt Grob would hold another 24.95%, the Bavarian State Investment Company another 26.5%, with the Dresdner and Bavarian United Banks jointly keeping about 21%. MBB's overall control would be assured by its close association with the participating banks. Personal experience and loyalties also may have entered into these arrangements as Karl Diehl, already heavily invested in tank programs as subcontractor for Gepard and Leopard, favored his old colleague Strauss over IWKE of Karlsruhe. Both IWKE and MBB are headed by former Flick and Krauss-Maffei executives. The Krupp group evidently was excluded because of its existing role as subcontractor for Leopard II, and the potential for monopoly control of tank production. Hamburg Social Democratic interests may have been at least partially mollified by MBB promises of increased Airbus production in that region. The lure of this complicated acquisition involves a reported 17% Leopard II profit margin, and Herr Strauss' reported interest in promoting further French-German collaboration to ease European defense dependence on the U.S. "Flick Verdirbt das Geschäft," Die Zeit (December 7, 1984), p. 12; "Kompliziertes Spiel," Der Spiegel, (September 10, 1984), pp. 76-79; and "Sale of Krauss-Maffei," Die Zeit, (Jan 25, 1985).
29. Union leaders tell their members, with some success, that Third World markets for arms exports are fleeting, and no ultimate job panacea. From positions on company boards, union officials often try to promote separate accounting for military and civilian production and for main contracting and subcontracting. Personal confidential interview with trade union official (Frankfurt: July 1984), and with Bundestag M.P. (Bonn: July 1984).
30. On defense production capacity, see Brzoska, dissertation, op. cit. pp. 210-12. At certain locations, such as MBB, the profitability of arms



production is very high in relation to faltering civilian projects such as the Airbus. Funds derived from military sales can help keep money losers going. Some military products, such as Tornado fighters, are also relatively unexportable due to high prices; so smaller missile projects are seen as necessary to cover for losses. Such missiles can find their way into intense war zones, such as the Persian Gulf or the Bekaa Valley of Lebanon. Therefore, companies with low relative dependence on military production or exports can derive large segments of their profits from such endeavors. (Personal interview with trade union official, Frankfurt: July 1984.)

31. Mattox, op. cit., p. 4.
32. Personal confidential interview with former government official (Hamburg: July 1984).
33. Kurt Becker, "Wide Variety of Issues on Agenda for Kohl Visit to Saudi Arabia," The German Tribune (Oct. 16, 1983), p. 2; and Heinz Stüwe, "Deficit with Saudi's Heads Towards Surplus," The German Tribune (Oct. 23, 1983), p. 1.
34. See Plenary Protocol (Bonn: The German Bundestag, October 27, 1983).
35. Nielebock, op. cit., pp. 15-24; in one sense Foreign Minister Gensher's 1984 trip to Iran may have been at the behest and in the interest of German industries wishing for Persian sales, but in another sense as well it established a NATO contact in that relatively isolated state.
36. William Echikson, "Despite Spats, Germany and France have Come a Long Way," Christian Science Monitor (May 31, 1984), p. 7; and Axel Krause, "Europeans Meet to Clear Differences on Building New Jet Fighter by 1995," International Herald Tribune (July 1984), p. 1.
37. Quoted in Nielebock, op. cit., p. 35.
38. Brzoska, "Rüstungsexportpolitik", op. cit., pp. 22-23.
39. Already Brazil, with over \$1-billion in basically less sophisticated arms sales to an estimated 57 countries (mostly in North Africa and the Middle East) in 1984 reportedly ranked sixth in global arms exports, right behind the FRG. See James Nelson Goodsell, "Brazil Cashiers Military Government but Cashes in on Arms Sales," Christian Science Monitor (January 14, 1985), p. 11; the emphasis in FRG military research and development appears to be in micro-electronics, word and information processing technology. See Wehrdienst (March 19, 1984).
40. MBB has tank experience in mounting its Roland anti-aircraft system, and in developing anti-tank systems. Derived from personal interviews with defense interest group officials, and journalists, Bonn: July 1984.
41. See Brad Knickerbocker, "New Age of Strategic Arms Ahead," Christian Science Monitor (February 14, 1985), p. 1; on Germany's dilemma of technical dependence on the U.S. in the 80s and 90s, see Defense Minister Werner's views in Wehrdienst (April 24, 1984).

42. See Elizabeth Pond, "W. Germany is key to Whether Europe Joins US 'Star Wars' Effort," Christian Science Monitor (July 8, 1985), p. 12. European opinion on SDI and related projects is split; both because of concerns about destabilizing deterrence and about the difficulties of meaningful weapons and technological collaboration with the nationalistic U.S. defense establishment.