

FOREIGN MILITARY SALES AND U.S. WEAPONS COSTS

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PREFACE

Although the U.S. foreign military sales program has been justified chiefly on security and foreign policy grounds, recent debate has emphasized its economic advantages in reducing U.S. weapons costs and requirements. The foreign military sales program was discussed in the international affairs section of the CBO report, Budget Options for Fiscal Year 1977. This paper, which was prepared at the request of the Senate and House Budget Committees, examines in greater detail the program and its implications for savings in U.S. weapons costs.

This report was prepared by Sheila Kean Fifer of the National Security and International Affairs Division of the Congressional Budget Office. She wishes to acknowledge the research and analytical assistance provided by Robert E. Schafer and James R. Capra of CBO's Budget Analysis Division and the helpful suggestions of Robert B. Mantel of the Senate Foreign Relations Committee staff.

A companion CBO staff working paper, Budgetary Cost Savings to DoD Resulting from Foreign Military Sales, examines and projects the cost savings from the foreign military sales program on the basis of data analysis of 35 major weapons systems.

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(III)

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SUMMARY

Until recently, evaluation of the foreign military sales (FMS) program has depended chiefly on security and foreign policy judgments. The program's goal has been assumed to be promotion of these policies, and its success measured by how well they are served. Recent debate has, however, extended to the economic consequences of foreign sales--particularly their secondary effects in reducing U.S. weapons costs and requirements. These savings have been considered as a valuable attribute of the FMS program, as compensation for faults in the program, and as reason for not restraining the program with additional Congressional regulation.

This study finds that some individual cases do produce substantial savings against a given weapon's total program costs. These cases are, however, exceptional. Large savings do not seem to be generally characteristic of FMS. Similarly, it is difficult to identify consistent savings resulting from reduced requirements on U.S. military resources as a result of FMS' strengthening recipient states. Certain sales--such as those to NATO allies--may reduce pressures on U.S. resources. The majority of sales, however, go to the Middle East, where more important policy concerns, such as the distribution of U.S. weapons technology, complicate and overshadow military costs evaluations.

Other findings of this study are:

- For a few, selected weapons systems, the savings from foreign sales are substantial, ranging up to 15 percent of a weapon's procurement costs in a given fiscal year and 8 percent of its total research and development (R&D) costs. R&D cost recoveries appear to be the single largest source of FMS savings.¹
- These savings are primarily from sales of recently developed "high-technology" systems--particularly new fighter aircraft and missiles. Savings are, then,

1. The savings discussed in this paper are approximate illustrations, and are based largely on data provided by the Office of the Secretary of Defense (OSD) and the services. A more detailed discussion of the relationship between procurement costs and FMS savings can be found in Budgetary Cost Savings to DoD Resulting from Foreign Military Sales, a CBO staff working paper.

The examples given here, 15 percent of procurement costs and 8 percent of R&D costs, are for the TOW missile launcher and F-14 fighter, respectively. They are the single largest examples of savings of their kinds among FMS data CBO has collected thus far.

directly tied to the transfer, at cost, of recent and sophisticated U.S. weapons technology.²

- For most sales--ship, ammunition, artillery, military equipment, and services for which early R&D and other costs have already been absorbed--there appear to be little or no cost savings.
- The relationship between restrictions on FMS and increased Department of Defense (DoD) weapons' costs will depend less on how many total sales dollars are approved than upon how many sales of newly developed, high-technology systems are permitted.
- Reduced U.S. weapons requirements--because FMS strengthens the recipient states--is a potentially far more important source of savings. It is difficult, however, to define clear savings, particularly since a majority of recent sales have gone to three regional powers: Iran, Saudi Arabia, and Israel.

2. The term "high-technology" is used here to refer to major new weapons systems which employ sophisticated and specialized technology.

BACKGROUND: PROCESS AND PARTICIPANTS

The processes for approving and delivering foreign military sales (FMS) have changed little since security assistance programs were first organized at the close of World War II. Then the intention was that the existing units in each armed service which procured weapons and equipment should also be used for foreign arms transfers. Procurement for foreign governments was managed on a case-by-case basis as a small side account to U.S. procurement.

FMS is still managed that way. The fragmented and ad hoc pattern continues even though sales have grown to 15 percent of U.S. procurement, involve considerably more negotiation than the grants of the earlier period, and now deal in highly sophisticated weapons systems. Foreign sales are still largely administered along three separate but roughly parallel lines in the Army, Navy, and Air Force. It is in the services that most negotiations with foreign governments and manufacturers are initially processed.

The Army, Navy, and Air Force each maintain a security assistance division which oversees weapons sales and grants to foreign governments. To the extent that there is any working-level center in the fragmented FMS process, it is these divisions. They are the link between foreign purchasers and weapon-program managers who negotiate and oversee U.S. procurement. The services' program managers also provide the costing and pricing figures used by security assistance in offers to foreign governments and by the services' comptrollers for budgeting and appropriations. The three services' international logistics divisions also simultaneously provide transport, servicing, and training to foreign purchasers and to the Army, Navy, and Air Force.

With the rapid growth in foreign sales, the Office of the Secretary of Defense (OSD) has come to take a more active role in overseeing the FMS function. In 1971 the Defense Security Assistance Agency (DSAA) was formed as the primary agent responsible for administering all Department of Defense (DoD) security assistance programs.¹ (The Director of DSAA reports directly to the Secretary of Defense.) With personnel totaling approximately 90, DSAA is authorized to direct, supervise, and administer all security assistance plans and programs. While much of the administration may, out of necessity, be delegated to the services, it is still the responsibility of DSAA.² DSAA does, in fact, become involved in the

1. DoD Directive 5105.38 (August 11, 1971; amended May 10, 1973).

2. Geri M. Riegger (White House Fellow), Security Assistance Administration in the Department of Defense, an unpublished manuscript (July, 1975), p. 15. Much of the following section is drawn from this manuscript.

majority of approved sales cases. It reviews any sales requests for Iran and Saudi Arabia, all requests which involve major weapons systems, all cases with a value of over \$5 million, coproduction proposals, and sales to restricted countries.

The Director of DSAA, General H. M. Fish, is also Deputy Assistant Secretary of Defense for International Security Affairs (ISA). ISA is the other major OSD organization primarily involved in security assistance management. ISA is responsible for forming security policy for sales, assistance, and credit programs. As a result of his two positions, General Fish is charged with both forming and executing security assistance policy.

The Military Assistance Advisory Groups (MAAGs) are stationed in 45 countries to represent DoD and to aid foreign governments in developing security programs. The MAAGs were originally established to guide and administer the Grant Aid (or MAP) programs. With the transition from military aid to military sales, the majority of MAAG effort worldwide has come to be expended on FMS rather than on MAP. Although the MAAG units have been reduced in recent years, there is still some debate on whether their 1,800 personnel may be excessive for their responsibilities.

The MAAGs are often the first point of contact in the three-part FMS process: pricing and availability, letters of offer, and delivery. A sales inquiry may come through the MAAG, the State Department, or directly to the Army, Navy, or Air Force. The services respond with a pricing and availability statement. This report requires a review of all costs involved in procuring and delivering the specified item; it is also intended to prevent the diversion to foreign purchasers of materials needed by the services. After pricing and terms are negotiated (these discussions are normally handled by the security divisions), a formal letter of offer is signed. Once the item has been procured, responsibility for delivery falls upon the services' international logistics divisions.

This process varies considerably from case to case, and many more offices take part in the process than have been indicated in this brief overview. Almost every major organization in DoD takes at least some minor role in the sales and assistance function.

In fact, the expanding portion of DoD personnel involved in this function has led to concern over manpower strains.³ FMS personnel (other than MAAGs) are allocated under the DoD manpower ceiling set each year

3. DoD does not have ready access to the total number of personnel in OSD and the services who participate in the FMS function. DoD identifies personnel involved in the FMS program in terms of man-years, and excludes MAAG/Mission personnel and other personnel whose costs are recovered as part of the price of a material or service item--personnel who nonetheless remain under the total DoD ceiling. With these exclusions, the Defense Security Assistance Agency estimates that 4,800 man-years, both military and civilian, were devoted to the FMS program in fiscal year 1975.

by Congress. While DoD tries to recover full costs for the personnel effort in FMS, foreign governments' payments for manpower costs do not translate into additional manpower. Over the last five years, the ceilings have been steadily lowered, while at the same time the FMS personnel burden has dramatically increased. Most observers agree that there is a consequent personnel shortage in the FMS area, and many believe that other Pentagon functions also feel an increased burden because of the large numbers of DOD personnel giving some portion of their time to FMS.⁴ If FMS is consuming personnel and administrative skills needed in other activities, this use of limited Pentagon resources might be considered as part of the costs of the FMS program.⁵

4. Riegger, Security Assistance Administration, p. 30.

5. DoD supports legislation which would remove security assistance from the manpower ceiling. If Congress wished to increase manpower available to FMS, one alternative would be to allocate a manpower ceiling which includes an approved FMS personnel number.

SAVINGS IN DoD WEAPONS COSTS

Through foreign military sales, the Pentagon provides military materials and accompanying services to foreign governments. These sales are estimated to total \$8.2 billion for fiscal year 1976.⁶ Assuming recent patterns continue, approximately \$6.15 billion, or 75 percent of total sales, will pay for military materials, ranging (in order of sales values) from airplanes and missiles through ships, to vehicles and ammunition. The remaining 25 percent of total sales, or approximately \$2 billion, will buy the various services that accompany the weapons. These include training, servicing, constructing (of ports, minestrips, and roads), and the administrative processing necessary to complete the transaction.

By law and policy, all weapons and services sold through the Pentagon are to be provided at cost; DoD should incur no burden or profit in its role as middleman between foreign governments and U.S. manufacturers.⁷ The price charged foreign purchasers is the sum of the contract price to the service for the equipment, plus the costs of any accompanying services, plus administrative and other miscellaneous costs. Calculating costs is one of the more difficult and uncertain aspects of FMS management. The intention is, however, that there should be no net effect upon the DoD budget as a direct result of the FMS program.

The Department of Defense can, however, garner indirect savings from sharing U.S. development and production costs with foreign purchasers. Foreign purchasers can be charged, as part of the equipment price, a proportion of the research and development (R&D) costs which the Pentagon would normally have to pay in full. Foreign purchasers can also lower unit costs to the service by increasing the production volume. Such savings mean that the FMS program's ultimate impact on the DoD budget should be a reduction of weapons program costs.

6. This figure represents the sales contracted during fiscal year 1976, not the sales delivered. As of February, 1976, \$4.2 billion had been contracted. The fiscal year 1977 projection of \$8.9 billion has also been reduced to \$7.4 billion.

7. FMS terms are subject to negotiation. Reductions in weapons prices and surcharges can be granted when such concessions are judged to be in the national interest. See DoD Military Assistance and Sales Manual-- Part III, Chapter B, and DoD Instruction 2140.1: Pricing of Sales of Defense Articles and Defense Services to Foreign Countries and International Organizations. DoD receives authority to administer these aspects of FMS under Executive Order 10973 (Executive Orders and Delegations of Authority Relative to Foreign Assistance).

U.S. procurement savings are claimed as a major economic benefit of the program. Testimony of Pentagon officials on the FMS program repeatedly lists lower U.S. weapons costs as a valuable by-product of the program. General Fish, Director of the Defense Security Assistance Agency, has cited procurement cost savings as an aspect of FMS which "offsets the risk of temporary reductions in selected weapons stockpiles."⁸ Industry spokesmen have also used this aspect of FMS to argue against restraints on sales; they have held that proposed FMS restrictions would cut sales and result in significantly higher weapons costs for DoD. This relationship between sales and costs would seem, however, to apply in significant dimensions to only a small minority of the weapons sold under FMS. Given the composition of the fiscal year 1976 \$8.2 billion sales program, total savings have been estimated to range from \$200 million to no more than \$900 million.⁹

Sources of Savings

The two primary sources of savings from foreign military sales are recovery of research and development costs and lowered per unit production costs.¹⁰ Both types of savings seem to be derived primarily, though not exclusively, from recently developed, sophisticated weaponry.

8. Department of Defense Appropriations for Fiscal Year 1976 (H.R. 9861), Hearings before the U.S. Senate Appropriations Committee, 94th Congress, 1st Session (1975), Part 5, p. 211.

9. This estimate was derived from sales and production data provided to the CBO Budget Analysis Division by the services and OSD. See Budgetary Cost Savings to DoD Resulting from Foreign Military Sales, a CBO Staff working paper.

10. Maintenance of a production base is a third potential source of savings which is not treated here. It is, unfortunately, quite difficult to identify since it relies upon various assumptions about the timing of U.S. procurement requirements. These savings arise when a break occurs in orders from the U.S. services for specific weapons and equipment. Although these items will be required in the future, U.S. stocks are temporarily full. Under such conditions, it may be necessary to close production facilities and to later reopen them when U.S. orders are needed again. Both the closing and reopening of the production base involve expenses which add to U.S. procurement costs. If foreign orders for these items can be interspersed with U.S. orders, production is maintained and the closing and opening costs are saved. Unlike R&D recovery and per-unit costs, these savings can apply to any system. They are also less likely to apply to the major cost items, such as planes and missiles, which have a definite and continuous production program. Maintenance of a production base would seem to be the most speculative source of savings associated with the FMS program. Accordingly, it is not included in the following discussion of the overall savings derived from FMS.

Recovered Research and Development Costs

Recoveries of research and development costs are the most direct and the largest source of savings. These are also the most easily identified: Savings are equivalent to the amount of an R&D surcharge added to the purchase price of a weapon. The surcharge represents R&D expenses which otherwise would have been borne by the United States alone. Once paid by the foreign government, these monies pass through the FMS trust fund receipts and are repaid to the Army, Navy, or Air Force as credit against the R&D appropriations requested for the following year. Thus, each of the service's R&D appropriations should be reduced by the amount of R&D receipts coming into the trust fund.¹¹

R&D savings vary according to a weapon's development costs and the length of time the system has been in production. The largest recoveries come from sales of weapons systems which have been in production for less than five years.¹² Under official DoD procedures, R&D charges for these systems can be prorated.¹³ The estimated ratio of foreign sales to the total production is the proportion of total R&D expenses that can be distributed to foreign sales. R&D expenses are distributed to each foreign purchase on a per unit basis. If the estimated production or sales numbers change, the distribution is revised. For systems which have been in production for longer than five years, DoD regulations require that a flat percentage charge, up to 4 percent, be added to the purchase price.¹⁴ These guidelines are not rigid; purchasers can negotiate a lower than prescribed surcharge. Although a complete waiver of R&D costs is normally granted only to NATO allies, it should be noted that these allies account for nearly a third of total sales dollars.

Among the kinds of weapons sold under FMS, new aircraft and missile systems would appear to generate the most consistently high R&D recoveries. This is in large part because they tend to have comparatively high research

11. In the annual DoD budget, requested R&D appropriations for each of the services is reduced by the FMS R&D receipts estimated to be received during that fiscal year. R&D receipts can only be drawn against R&D expenditures.

12. An Iranian fiscal years 1974-75 purchase of 80 F-14s which recovered \$160.6 million in R&D expenses represents a relatively high recovery. See discussion below.

13. DoD Instructions 2140.1 (June 17, 1975) and 2140.2 (January 23, 1974).

14. Nonrecurring R&D or tooling costs which are peculiar to the foreign purchase are fully paid by the foreign government. This is, however, not a savings to the United States. It is a charge for additional expenses from special production for foreign sales.

and development expenses, and R&D recoveries are potentially a more significant savings against their overall costs to the United States. Items such as vehicles, tanks, and ships seldom have equally large R&D expenses relative to their total program costs.

Given DoD pricing regulations, however, the largest R&D recoveries occur with the sales of newer aircraft and missiles--those under five years in production. Given the Pentagon's two methods of apportioning costs--pro rata or 4 percent of purchase price--the five-year distinction can make a substantial difference. The sale of 80 F-14s to Iran recovered one of the larger R&D surcharges reported in recent years. Since the F-14 was in production less than five years, Iran paid a total prorated surcharge of \$160.6 million, or slightly more than 9 percent of the contract price to Iran. Had the F-14 been in production for more than five years, the recovery would have been substantially less: no more than \$70.3 million, or 4 percent of the purchase price. The F-14's estimated total program cost (not adjusted for inflation) is \$8,512.5 million, and Iran is thus far the only foreign purchaser.¹⁵

Lowered Production Unit Costs

The second major source of FMS savings is lowered per unit production costs. Production savings can amount to as much as the 15 percent of annual procurement costs estimated for the TOW launcher.¹⁶ Many of the articles provided by FMS--such as ammunition, artillery, and ships--however, generate little or no savings. Like R&D recoveries, production savings also vary widely among kinds of weapons and circumstances of the individual sales.

Lowered per unit production costs result from the increased volume which FMS orders add to U.S. procurement. Under certain production circumstances, increased volume can mean a lower unit cost. The difference between the actual per unit cost to the United States and the higher cost which would have been paid in the absence of foreign orders is the estimated savings. These savings can be the result of economies of scale or of increased production experience: The foreign orders may increase a contract order to a volume that can be manufactured more efficiently, or they may provide more production learning and reduce the costs for subsequent U.S. purchases. In both cases, the marginal benefits will diminish after a given volume or level of experience has been reached.

15. These costs and savings estimates have not been deflated to a base-year comparison.

16. The estimate of 15 percent savings refers only to procurement during fiscal year 1976. It excludes procurement costs in other production years and R&D costs.

Like R&D recoveries, production savings also vary substantially according to the size and timing of foreign orders in relation to U.S. procurement. The greatest savings tend to come from sales which place large foreign orders early in production. The least savings seem to occur when foreign orders come near the end of U.S. procurement, are too small relative to U.S. purchases to affect production costs, involve items which do not become cheaper with greater volume, or are filled out of U.S. stocks.

Of the various categories of weapons sold to foreign governments, newer aircraft and missiles seem to most often fulfill the conditions for high production savings. Their characteristically small production runs and high unit costs make the added orders from foreign sales a source of exceptionally high savings; added foreign orders are most likely under these conditions to increase efficiency, and even a small percentage saving can be substantial in absolute dollar terms. The Navy predicts, for example, that in fiscal year 1976 Harpoon sales will save \$18.6 million, or 12 percent of annual procurement costs.¹⁷ While the anticipated savings from Harpoon sales are higher than most aircraft and missile savings--the Phoenix, estimated at 5.6 percent, and the TOW missile, at 3 percent, are more representative--these systems as a group are still substantially above other major sales items.

Unlike R&D recoveries, however, production cost reductions do not always represent a clear savings. Additional costs, which should be offset against estimated savings, are sometimes associated with foreign orders. The intervention of foreign orders can, for example, mean that U.S. procurement is delayed. Delayed U.S. purchases can mean additionally inflated budgetary costs, although not necessarily higher real costs.¹⁸ More important, the presumed delay in procurement means that U.S. forces are temporarily denied a needed resource and required to expend additional maintenance on the systems to be replaced. The F-14 case illustrates another kind of offsetting cost: production readjustments. The Navy reports that while the Iranian order initially saved \$60 million in production expenses, additional costs associated with closing the order--while continuing procurement for U.S. orders--totaled \$120 million.¹⁹ Although circumstances

17. These figures are a proportion of only the given fiscal year's procurement costs. Weapons development and production in other years are not included. These production cost-savings estimates were provided by OSD and have not been independently confirmed.

18. Inflation also increases the absolute amount of tax receipts, and this gain is generally sufficient to finance the additional costs of government purchases. The real cost of the weapon to the government does not necessarily, therefore, increase.

19. Department of Defense, Selected Acquisition Report, F-14A (December 31, 1975), p. 5F. No itemization is provided in the report for these additional costs.

such as this may be rare, it demonstrates the necessity of including any additional costs in final assessments of the total production savings generated by FMS.

Profile of Savings by Weapons Systems

The overall savings effect of the FMS program would appear to depend far less upon the dollar volume of sales than upon the composition of sales. Hypothetically, a \$10 billion program composed primarily of ammunition and ships--which generate neither substantial R&D nor per-unit production savings--could produce little savings, while a \$5 billion program composed primarily of missiles and aircraft might produce substantial savings. Furthermore, a program exclusively of missiles and aircraft established in full production would tend to yield far less savings than a program of newer items--which could recover R&D expenses and use FMS to move into full production.

In fact, a realistic program must be a mixture falling somewhere between these extremes. The needs of customers require that both high- and low-savings weapons and accompanying services be made available. The existing program is such a mixture (see Table 1), with cost savings represented by a minority of sales:²⁰

- Between 25 percent and 30 percent of total sales dollars represent payments for various services, such as repair, training, administrative work, overhauling, construction, and supply operations. These activities, of course, do not create savings. They may, in fact, generate some indirect, non-monetary costs by straining limited resources which the services draw upon for support to their own programs.
- Approximately another 11 percent represents the sale of ships--submarines, destroyers, landing craft, and various other small craft. While some cost savings may be derived from procurement of ship components needed for both U.S. and foreign purchases, overall savings tend to be small or nonexistent.²¹

20. This categorization is based on DoD descriptions of the 1975 orders in Foreign Military Sales and Military Assistance Facts (November, 1975), pp. 8-11. Estimates of savings characteristics are also based on DoD data.

21. For example, OSD estimates that by simultaneously procuring components used for both the CGN-41 and the Iranian-purchased DDS destroyer, \$4 million in fiscal year 1976 procurement costs were saved on parts for the Navy's CGN-41 cruiser. This would mean a 1.14 percent savings in annual CGN-41 procurement costs. The landing and other smaller craft which composed the majority of ship sales would be expected to yield considerably less savings.

TABLE 1
FOREIGN SALES CATEGORIES^a

<u>Categories^b</u>	<u>Foreign Military Sales Orders Fiscal Year 1975 Percentage of Total Dollars</u>
Aircraft	19%
Ships	11%
Vehicles and Weapons	5%
Ammunition	7%
Missiles	10%
Communications Equipment	2%
Other Equipment	5%
Undefined ^c	<u>16%</u>
Subtotal, Equipment	75%
Services	<u>25%</u>
Total	100%

a. This table is taken from total sales dollars as given by these categories in the Foreign Military Sales and Military Assistance Facts (November, 1975), Data Management Comptroller, DSAA, p. 8.

b. For weapons systems, the percentage estimates are inclusive of spare parts and administrative fees.

c. This is a residual category used by DSAA to denote those funds which they cannot attribute to any given weapon category. In fiscal year 1975, undefined sales dollars were considerably larger than in previous years. If these sales dollars were distributed in equivalent proportions among the weapons and hardware categories, the percentage categories could rise to the following: aircraft, 27 percent; missiles, 14 percent; vehicles and weapons, 7 percent; ships, 15 percent; and communications equipment, 2 percent.

- Roughly another 7 percent of sales dollars is derived from ammunition, which typically generates little R&D recovery or production savings.
- Vehicles, tanks, and artillery constitute approximately 5 percent of sales. Vehicles and tanks reportedly can yield savings; DoD cites high per-unit savings for the M-60 tank and M-113 personnel carrier--although this does not seem consistent with their production characteristics.²² As a general case, artillery and such weaponry do not yield significant savings.
- Somewhat less than 2 percent of sales dollars represents communications equipment which most likely does create savings.
- A remaining 29 percent of total sales dollars comes from foreign purchases of aircraft and missiles--weapons which produce the most R&D recoveries and the most production savings. As discussed above, not all aircraft and missiles, but only those with a high proportion of sales early in the production run, generate substantial savings. Also, some of the production savings may later be diminished by inflation and other costs associated with integrating the foreign purchase into U.S. production programs.

What savings are produced by FMS appear to be largely dependent on sales of recent, high-technology weapons. Whether or not these weapons continue to be sold in the same volume is probably the most important single factor affecting FMS savings. If Congress decides to restrict these sales, it seems likely that, even with increased sales dollars elsewhere, total savings will be reduced. Here, however, savings considerations would seem to be outweighed by policy questions. Is it in the U.S. interest to make this technology available, at cost, to foreign purchasers? Does the United States gain more by holding exclusive control of its weapons technology or by sharing it with selected customers? Like so many aspects of FMS, answers to such questions will vary with the circumstances of individual sales. Some of the more important of these circumstances involve the international aspects of FMS.

22. Sufficient data is not presently available to appraise these DoD savings estimates.

INTERNATIONAL ASPECTS OF FMS SAVINGS

FMS savings in the numbers and kinds of weapons the United States must procure and maintain are potentially far more important than savings in the production and R&D costs of weapons. The primary justification for the FMS program is, of course, its promotion of U.S. foreign policy and security interests. These sales are intended to strengthen allies and stabilize regions important to the United States. Substantial savings would result from sales which strengthened recipient states, decreased the probability of U.S. active involvement and, subsequently, the Pentagon's military requirements.

From this viewpoint the question of who is receiving these weapons becomes relevant: What allies are strengthened and what regions stabilized? For fiscal years 1973-75, NATO members purchased approximately one-third of foreign sales. More than half of the total sales, however, went to three Middle East powers: Iran, Saudi Arabia, and Israel (see Table 2). Iran and Israel have also been leading recipients of the high-technology, cost-savings systems described above. The remaining sales dollars were divided among Latin American, African, Asian, other Middle Eastern countries, and the Commonwealth states.

Any assessment of the security gains--and consequently reduced requirements--from sales depends upon the probability that the weapons will be used consistently with U.S. interests. For the NATO recipients, the probability is presumed to be quite high. Long-standing commitments and policies have assumed Western European and U.S. security to be interdependent. Weapons bought by NATO allies may be judged to substitute or to supplement the United States' own military resources to some degree.

To a somewhat lesser degree, the same benefits might be seen in sales to allied, less developed countries (LDCs) and Commonwealth states. Of course, no formula is available to calculate by how much sales may actually reduce U.S. military requirements. Still, for states with which the United States has a clear defense commitment, FMS may be considered to reduce indirectly the numbers and, therefore, the costs of weapons the United States must procure and maintain.

For the majority of U.S. arms sales, however, such judgments are not so easily made. Any of the three primary Middle Eastern recipients could, for example, use FMS-acquired weapons, technology, and skills to pursue goals conflicting with the United States' or with each other's. Although conditions are less volatile and consequences less severe, the same potential exists with many other LDC purchasers. Once delivered, the United States has, at best, very tenuous control over FMS resources. There can be no assurance that these weapons will not be used against U.S. interests, thus increasing, rather than reducing, the pressures upon

TABLE 2

MAJOR RECIPIENTS OF U.S. FOREIGN MILITARY SALES^a
 (Percentage of total sales orders by
 purchasing state and fiscal year)

State	1973	1974	1975
Iran	48%	36%	27%
Saudi Arabia ^b	14%	23%	14%
Israel	4%	23%	9%

a. Given the average 2-3 year lag between FMS orders and deliveries, many of these purchases have not yet been delivered.

b. These figures do not necessarily reflect comparative levels of U.S. armament, since Saudi purchases are only approximately 20 percent weaponry. The other 80 percent of Saudi FMS dollars buy services and military materials. Iranian and Israeli FMS dollars are invested primarily in weaponry.

military requirements. Under such circumstances, it becomes difficult, but essential, to estimate whether sales--such as the Iranian purchase of 80 F-14s--do, in fact, reduce U.S. military requirements. At this point, however, an evaluation of FMS returns to the level of policy judgments: Do these sales serve U.S. foreign policy? If in a given case the answer is no, it seems unlikely that cost savings would be sufficient to serve as a counterbalance.

O