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FAS URGES REFORM OF OFFSET POLICIES

Despite the many knitted brows (or perhaps only a great deal of bombast) over how the international arms market enabled Iraq's aggression against Kuwait, it is nearly three and a half years later (and with conventionally-armed chaos raging in Afghanistan, Angola, Bosnia, Burma, Cambodia . . .) and little progress on controlling weapons transfers has been made.

In fact, since Operation Desert Storm, U.S. weapons sales and marketshare have soared to record levels. (In Fiscal Year 1993 the government negotiated \$33 billion of arms exports to countries around the world, likely representing 60-70 percent of all sales.) And the arms transfer limit negotiations initiated after the war collapsed when China withdrew in September 1992, in protest against the United States' sale to Taiwan of 150 F-16 jets (See *FAS Public Interest Report* Nov/Dec 1992).

Although events have chronicled a gloomy record, some more circuitous approaches to limiting arms

sales may succeed where direct efforts have floundered. One of these approaches involves limiting "offsets."

Offsets are side deals negotiated along with and tied to weapons sales. They help the purchasing country recoup part (or all, or even more than all) of the cost of the sale, or otherwise make the sale more attractive. Given the surfeit of weapons on the market today, buyers are able to demand more and more offsets. Not only do these "deal sweeteners" come at considerable cost to U.S. industries and workers affected by countertrade and other such commitments, but the offset of choice, the transfer of military production capability to the buying country, is one of the most dangerous and short-sighted aspects of the international arms trade.

The Clinton Administration is currently formulating a policy on conventional arms transfers. New poli
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SWEET DEALS AND LOW POLITICS: OFFSETS IN THE ARMS MARKET

Let's say you sell cars. It's a competitive market. You could try to attract customers by offering the lowest prices and highest quality in town—but you soon learn that isn't the best way to maximize profit. Instead, you offer little gimmicks to persuade your customers that they're getting a better deal than they would get from the dealer down the road (even if they're not): fancy upholstery, a stereo, etc. You might throw in things that have nothing to do with cars, like a microwave or discount airline tickets.

Now, imagine that instead of cars you sell tanks and guns and airplanes and bombs. How far would you be willing to go in sweetening deals with "gifts" on the side? In 1987, the last year for which data is available, U.S. arms manufacturers included a total of \$2.987 billion worth of such goodies—called "offsets" in arms business parlance—in \$3.037 billion of weapons sales.

Arms sales offsets may seem an esoteric topic, but they afford a glimpse into the real world of billion-dollar corporate/government dealmaking in the international arms

market. Moreover, the effects of these little-known side deals on domestic employment, international relations and national security are profound.

What Are Offsets and Why Do They Exist?

Offsets come in two basic varieties. "Direct" offsets involve transfer of military technology, typically by granting a license to the purchasing country to produce the weapon system being bought, its components or subcomponents. "Indirect" offsets—not directly connected to military goods—may involve the counter-importation of
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cies on offsets should be included. Here are some suggestions:

- The United States should strictly limit the export of military production technology. A move in this direction would not be unprecedented. President Carter, as part of his conventional arms transfer policy in 1977, included a ban on co-production of major military equipment to most non-NATO countries. The policy gave way to Cold War pressures, but times have changed.

- As a corollary to unilateral restraint, the United States should negotiate with the other producers of major military equipment (primarily Europe, Russia, China) to restrain the proliferation of production capabilities to countries that do not already have them. This would force some countries either to purchase weapons off-the-shelf, or put up the massive expenditures needed for research and development to go it alone.

- To provide greater oversight, co-production and licensed production programs should be negotiated as government-to-government sales by the Department of Defense, and not be licensed by the State Department under its Direct Commercial Sales program. Currently there are two channels within the Pentagon's sales program for transferring production technology: Memoranda of Understanding and Letters of Offer and Agreement, each with its own set of directives and procedures. To facilitate oversight, it may be helpful to consolidate these separate procedures.

- The Pentagon should be required to notify Congress of co-production or licensed production of major weapons systems or components with *any* country, no matter what the dollar value, and, at a minimum, to explain why it is in the interest of national security to provide that country with an independent arms production capability. Michael T. Klare of Hampshire College has suggested that an "impact statement" be required for each co-production deal, examining consequences for regional security, U.S. trade and employment.

- Quarterly reports by the Pentagon, already required by the Arms Export Control Act, should be expanded to include information on all government-

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to-government co-production agreements valued at \$1 million or more. The report would detail the articles to be produced (how many and by whom), list the restrictions on third-country transfers and spell out the controls that have been incorporated into the agreement to ensure compliance. The reports should be available to the public, so that co-production trends can be monitored by independent analysts.

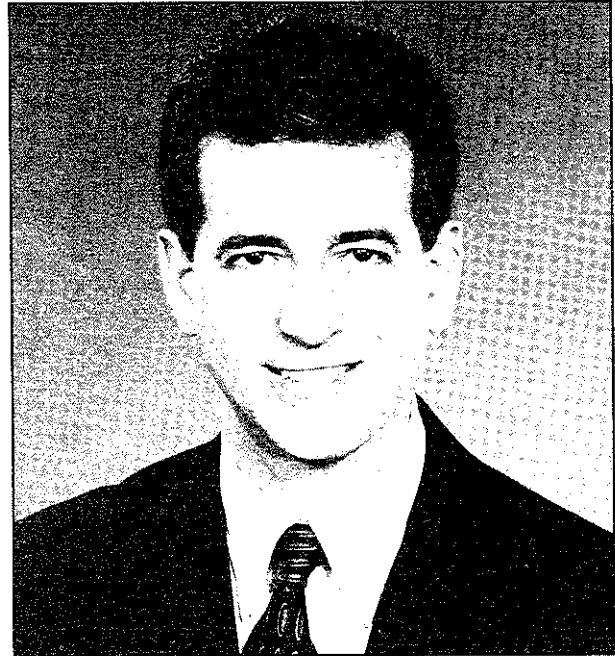
- DOD should assume full responsibility for end-use verification, production limits and assurance that technology is not being unlawfully incorporated into "indigenous" weapons programs. The State Department, which currently is responsible, has a poor track record in this area; the need for vigorous investigation and enforcement of compliance often conflicts with imperatives of diplomacy.

- Rights of inspection of co-production or arms production that incorporates U.S. technology should be a condition to the license agreement. Mandatory prior approval by the State and Defense Departments should be required before exports incorporating U.S. technology or produced under a U.S. license may proceed. Current law calls for cutting off arms sales to a country found violating license provisions; yet this has never been invoked. Meaningful, but realistic, sanctions for violations should be devised and enforced.

- The government should negotiate with European governments to limit indirect offsets, with a goal toward banning them. These negotiations would have two thrusts: they would try to limit offset demands from European buyers and also seek agreement with European suppliers to limit offsets provided to developing countries.

The government held bilateral consultations with NATO allies to discuss "measures to limit the adverse effects of offsets on the defense industrial base of each country," but with little apparent effect thus far. No effort to cooperatively limit offsets to developing countries has been disclosed.

- Offsets should be disclosed when Congress is notified of proposed weapons sales, in order to gauge their effect on the "jobs" equation. They should also be compiled in a data base so that the cumulative effect may be assessed. The reporting requirement introduced by Sen. Feingold should become law (See page 7), and both it and the Commerce Department's reporting requirement (the law since 1992) should be implemented and overseen rigorously.



Senator Russell Feingold (D-WI) recently succeeded in getting legislation through the Senate that would require Congressional notification of offset agreements related to arms sales. Another provision in the bill prohibits "third-party incentive payments" in connection with offsets.

- The government should limit or ban offsets when it is only U.S. arms manufacturers who are competing for a sale to either European or developing countries. This, too, is not without precedent. In Summer 1989, the Administration intervened in offset negotiations for the Korean Fighter Program. General Dynamics and McDonnell Douglas were competing for the sale and were driving offsets up into the 100 percent range, on top of a major co-production license. The government capped offsets at 30 percent of contract value.

It is true that verifying the absence of "indirect" offsets would be difficult. However, if subcontractors or other segments of U.S. industry are hurt by deals that involve buying or marketing products unrelated to weapons, they should, at a minimum, be able to ensure that the government has been duly notified of such deals. If offsets have not been reported to Commerce, as required by law, punitive measures could be taken.

- Ban *all* offsets on arms sales funded or financed by U.S. military aid. The Arms Export Control Act currently mandates such a ban, but an exception for Israel during Fiscal Years 1984-92 has meant that the United States gave away \$1.2 billion in offsets, *on top of* \$16.2 billion in grant military assistance. Such "double-dipping" should stop, and not be repeated.

—Lora Lumpe

some unrelated product into the arms-selling country, investment in the buying country, or commercial (non-military) technology transfer to the buying country.

A prime example of direct offsets is the \$5.2 billion Korean Fighter Program (KFP) deal of 1991. South Korea contracted to purchase twelve off-the-shelf F-16C/D fighters and thirty-six aircraft kits for assembly in Korea. In addition, Korea, which is seeking to develop an indigenous fighter aircraft production capability, purchased the right to manufacture seventy-two F-16s under license. Through previous offsets, Korean Air Lines and Daewoo were already producing some F-16 parts, and Samsung produced parts for the F/A-18 fighter. But that level of experience was nothing "compared to the level of manufacture and production line management contemplated under the KFP," according to the General Accounting Office (GAO). On top of the transfer of manufacturing and assembly know-how, Korea received 30 percent of the contract value, more than \$1.5 billion, in undisclosed indirect offsets.

A Bizarre Bazaar

Indirect offsets may be what Rep. Ron Wyden (D—OR) had in mind when, in a 1985 Congressional hearing, he called offsets "just bizarre." For example, in order to cinch a \$1.8 billion sale of F/A-18 fighters to Spain in 1982, McDonnell Douglas Corporation (MDC) undertook \$1.5 billion of offset commitments. MDC marketed a wide range of Spanish products in the United States, including steel coils, chemicals, sunflower seed oil, sailboats, "slime," paper products, zinc, and marble. The corporation helped publish and distribute a picture book on Spanish lifestyles, designed to promote American tourism in Spain, and in perhaps one of the oddest offsets ever recorded, MDC helped establish a Domino's Pizza franchise in Barcelona as part of the fighter deal!

As a 1990 report by the Office of Management and Budget (OMB), *Offsets in Military Exports*, noted: "It is hard to conceive . . . a U.S. corporation that is an efficient producer of aircraft or aircraft engines being equally efficient in the selling of furniture, shoes, tourist packages, or education and training services." Indeed, the recognition that offsets are economically inefficient and that they foster foreign competition with U.S. manufacturers seems to be shared among industry, labor, the Executive Branch, Congress, and the cognizant public. Cynics might also add that they appear to be a vehicle for pork-barrel politics and petty corruption on a grand scale.

A Trapped Industry

Nevertheless, governments permit, and even promote such deals, because, as Undersecretary of State Lynn Davis noted recently, "The demand for offsets is growing, with practically every arms purchaser demanding some form of offset." Industry, for its part, dislikes having to provide production technology offsets, which run counter

How to Tighten Co-production Management

Over the years, the GAO has made many recommendations on oversight of co-production programs, including:

- DOD needs to regularly update its directives and guidance on co-production to ensure that the office assigned responsibilities still exists, and is staffed! DOD should also make certain the regulations require military services or overseas security assistance offices to assure compliance with co-production agreements.

- DOD should station a representative in the foreign prime contractor's firm for a period of time. The Pentagon has not done so for a long time. Instead, DOD used to do this but now relies on the foreign country to provide it with production reports but does not verify the reports.

- To maintain indirect control over the quantity of end items co-produced, the DOD should not transfer a 100-percent production capability and should limit critical components through the DOD's Foreign Military Sales program.

- DOD should provide more, and clearer guidance on closing out mature programs.

- Congress should be notified of all co-production Memoranda of Understanding. Notifications or reports should include a section on whether DOD has negotiated compliance-related access provisions.

- DOD should include a verification provision for all countries' agreements, thereby eliminating selective verification.

- To preserve objectivity and independence in contract verification, DOD may wish to consider separating this function from contract implementation, once production is fully underway, and to fund it from the administrative fees it collects from FMS cases generally, rather than at the buyers' expense. ■

to long-term business interests, but it feels trapped by the system.

The policy of promoting or ignoring offsets was born out of Cold War efforts to build up allied defense and commercial industries. With economic competitiveness among the Clinton Administration's stated foreign policy priorities, and with the Pentagon recitation that regional instability and militarism is a primary threat to U.S. national security



The F-16 has become a multinational fighter: sixteen foreign countries now produce parts for, or assemble, it.

and interests, it is time to reassess U.S. policies on offsets.

Offset Requirements Increasing

Beginning in the 1950s, in addition to supplying the European and Japanese militaries with American equipment, the United States sought to rebuild its allies' arms industries through licensed production and co-development of weapons systems. In the 1970s, as the burden of financing increasingly fell on the recipients of American weapons, European countries resolved to exact a fee for foreign access to their markets. Thus, the offset method of arms marketing was launched.

Offsets can be viewed as both a marketing tool and a means of financing weapons sales. Rather than bargain for the lowest possible prices, buyers may prefer to use offset agreements to boost their political capital at home, advertising achievements gained by purchasing weapons from abroad—domestic job creation, investment, acquisition of new technologies, a foothold in a new market. According to the OMB, camouflaging top-dollar weapons purchases with these side deals “make[s] the monetary outlays on military equipment appear lower than they actually are and therefore more acceptable to both politicians and the public” in the buying nations.

Prime contractors have been willing to play along, since under these arrangements their products can be sold at high price levels, while the immediate burdens often fall on subcontractors (who lose business to co-producers in the recipient countries) and on those in unrelated industries (who lose business to indirect offsets).

Following the industrialized countries' lead, and seeing that the competitive market would bear it, many developing countries began in the late 1970s and 80s to routinely require that some raw percentage of the contract value be reinvested in their economies through offsets. Some Congressional observers have likened this practice to a massive foreign aid program being run by defense contractors. Kuwait, Saudi Arabia, South Korea and Turkey, to name a few, have established offset guidelines for arms imports. And with the increasingly competitive state of the arms market in the 1990s, countries that in the past were satisfied simply to buy sophisticated American weaponry are now demanding offsets as well.

Even An After-the-Deal Bargain

The Taiwanese legislature, for example, retroactively demanded Taiwan's first ever offset from an American firm for the September 1992 sale of F-16 combat aircraft to Taiwan. After the U.S. and Taiwanese governments completed the \$6 billion deal, the Taiwanese legislature blocked payment unless the manufacturer of the plane, Lockheed, provided Taiwan with technology and production contracts related to the aircraft. In July 1993 Lockheed signed a 10-year “Industrial Cooperation Agreement” worth \$1.1 billion which ensures production of some of the aircraft parts in Taiwan and the creation of depot maintenance centers there.

In the current buyer's market, U.S. manufacturers are engaged in an offset bidding war with each other and with

European competitors. Israel has just decided on a \$2 billion purchase of combat aircraft. Two American arms manufacturing giants—McDonnell Douglas and Lockheed—were in fierce competition for the deal, each trying to outbid the other in terms of price, technology and offset packages. To cinch the Israeli sale, McDonnell Douglas will likely provide offsets benefitting Israeli industry for up to 100 percent of the sale's value. At the same time, Israel will purchase the F-15E aircraft with U.S. military aid, which is restricted to purchases from the United States. In this way, the U.S. taxpayer subsidizes both foreign militaries and foreign industries at the expense of our own manufacturing base.

On some occasions, offset agreements extracted have been worth more than the actual value of the weapons sold. The \$2.3 billion sale of F/A-18 fighters to Canada in 1982 included offsets which could total, according to the OMB, 150 percent of the contract value. Several countries—predominately NATO allies—have received 100 percent or greater offset obligations on U.S. arms sales during 1980-87. (See box this page.)

Government Policy: Laissez-Faire

Since they generally involve the transfer of military capabilities, direct offsets by U.S. vendors must be approved, and usually are negotiated by, the government. Indirect offsets, however, are not controlled or even routinely monitored. As a matter of policy—enunciated by President Bush in April 1990—the government leaves these deals entirely up to industry's judgment.

The Clinton Administration has thus far endorsed the Bush policy. Deputy Secretary of Defense William Perry (now Secretary Designee) said in a 15 April 1993 letter to a U.S. Senator "We view decisions regarding offsets as matters best left to U.S. industry to negotiate and implement as part of their ongoing business activities. The principal objective of the current policy is to give U.S. companies the flexibility to structure arrangements that allow them to compete effectively for foreign sales. If U.S. defense manufacturers were unable to provide offsets, foreign governments would often be unable to raise domestic political support for defense purchases from the U.S., and U.S. industry would lose sales to foreign competitors willing to provide offsets."

Two Surveys—Little Real Action

Congressional concern about the effect of offsets on the U.S. economy erupts sporadically, generating what limited information and government oversight does exist. At Congress' direction, the government has undertaken two surveys of the U.S. arms industry's offset commitments, one in 1985 and the other in 1988. The 1988 data show that for the period 1980-1987, nearly \$35 billion in arms exports entailed \$20.1 billion in offset obligations. Given the assertion by State Undersecretary Davis that offsets are increasing, they undoubtedly now account for even more than 60 percent of total arms sales contracts.

Offset Obligations Undertaken by U.S. Arms Manufacturers During 1980-1987

<i>Client State</i>	<i>Offsets as a Percentage of Total Arms Sales</i>
Australia	37.6
Belgium	86.4
Brazil	100.0
Canada	78.0
Denmark	41.2
Egypt	22.9
Germany	59.6
France	125.2
Greece	39.1
Indonesia	19.0
Israel	23.0
Italy	51.6
Luxembourg	100.0
Netherlands	62.4
New Zealand	5.6
Norway	72.0
Philippines	45.1
Portugal	16.7
Peoples Republic of China	29.8
Republic of Korea	46.2
Saudi Arabia	29.9
Spain	132.5

(Source: OMB)

Industry Wants Offsets Protected from Public Eye

Congress has also established requirements that industry routinely report offset obligations. The National Defense Authorization Act of Fiscal Year 1989 required contractors to notify the Pentagon of offsets exceeding \$50 million. But, over two years later, the Pentagon had not yet developed regulations for implementing the requirement and had received only three voluntary notifications from industry. As an excuse for its non-compliance, the Pentagon argued that additional reporting requirements then being pursued by Congress would displace the Defense Department requirement. Indeed, the Defense Production Act Amendments of 1992 directs any firm that makes an arms sale subject to an offset agreement for \$5 million or more to notify the Commerce Department. As of December 1993, Commerce was still awaiting the issuance of an Executive Order to implement the reporting requirement, and the drafting of guidelines on what information is required and how it is to be reported.

While much remains to be filled in, the law was clear on one point: "Such regulations shall provide protection from public disclosure for such information, unless public disclosure is subsequently specifically authorized by the firms furnishing the information." Nevertheless, industry—at

least the prime contractors—strongly oppose the law on the grounds that through notification confidential business information will be disclosed.

Industry lobbyists argue that if Country X sees that Country Y got a better deal, then Country X will up its demands. However, purchasing countries for the most part publicly disclose the percentage of contract that they require in offsets, and it is unclear why this information by itself would not stimulate rising demands.

Moreover, foreign governments frequently disclose detailed information for their own political purposes. In fact, this is currently the only source of public information on specific offset deals.

More likely, the industry fears that notification will lead to regulation of offsets. “No one believes this is just notification” grouched an unidentified industry source to the military trade paper *Inside the Pentagon* (16 March 1990). “Once the offset is reported, they’re going to want to know much more. It will be notification and justification.” And industry does not want to have to justify its actions.

In July 1991, James McNerney, Jr., then Executive Vice President of the American League for Exporting Security Assistance, intoned at a government-industry conference “Government has no business overseeing offsets.”

The Defense Industrial Offset Association, representing prime contractors, works to prevent unilateral U.S. limits on offsets and forced disclosure. On the other hand, the group would welcome government intervention in pressuring American allies to limit their offset demands.

Freshman Senator Russell Feingold (D-WI) added an amendment to this year’s State Department Authorization Act that would require “real time” notification to Congress of any direct or indirect offset agreements under negotiation or consideration in contracts for the sale of weapons or services subject to Congressional review. The information would, under the amendment, be included in the notifications required under the Arms Export Control Act, which provides Congress with 30 days (in most cases) to consider the pending sale. For all unclassified arms sales—the vast majority—Feingold wants the information to be available to the public.

Secrecy, Jobs, Smoke and Mirrors

Sen. Feingold became interested in offsets when a Wisconsin machine manufacturer nearly lost a contract to supply paper-making equipment to an American company. In an offset connected to the 1992 sale of F/A-18 fighters to Finland, Northrop Corporation (a subcontractor involved in the deal) offered an “incentive payment” to the same American firm to buy the machine from Valmet Corporation, a Finnish company. Only by cutting its price by thousands did the Wisconsin company get the sale.

If American labor realized the extent to which U.S. arms firms are underwriting foreign competition, public opposition to arms sales would likely increase. In its 1990 report, the OMB did case studies of F/A-18 aircraft sales to Australia, Canada and Spain, assessing the short-and potential long-term economic impacts of both direct and indirect



In 1988, the United States approved Egyptian co-production of 499 General Dynamics M1A1 tanks. Egypt would like to export some of these tanks, but the U.S. has thus far denied the request.

offset transactions. “Certainly, a substantial short term gain in business was achieved through direct offsets. . . . Canadian firms were particularly successful in turning what was originally offset work into long term business opportunities. . . . The total impact that offsets have on U.S. industry is complex and intertwined with other economic factors. However,” OMB conceded, “it appears that offsets have contributed to the strengthening of foreign competitors in Australia, Canada and Spain.”

Industry lobbyists not only contend that offsets are essential to making foreign sales, they have masterfully played up the argument that arms exports support American jobs and the defense industrial base. The arms sales-for-jobs frenzy peaked in 1992, when McDonnell Douglas claimed that if the United States did not sell 72 F-15E fighter-bombers to Saudi Arabia, 40,000 jobs would be lost. The highly controversial sale was pushed through Congress largely on the strength of this claim. McDonnell Douglas did not advertise the fact that Saudi Arabia requires a 30 percent offset to all major contracts. Accordingly, Saudi workers and the Saudi economy stood to gain \$2.7 billion of business, possibly at the expense of American workers in defense and other industries.

Real-time reporting of offsets is needed if false or exaggerated claims of benefits to American workers are to be answered, and if constituencies that may be negatively impacted are to be alerted before arms sales are finalized. In a July 1993 fact sheet on his proposed amendment, Sen. Feingold said “Foreign military sales are often justified on the basis of the employment produced for the defense industry by such sales. If, however, such sales are accompanied by offset agreements that result in the loss of American jobs and business in defense and other sectors, that

information ought to be made available to Congress at the time the sale is being considered.”

Exporting Military Know-How

Countries that are sufficiently advanced industrially prefer military technology transfers over indirect offsets. Arms sales are now routinely accompanied by co-production or commercial licensing arrangements, whereby a production line for the weapon system or its components is set up in the purchasing country. Where the buyer cannot absorb technology transfer, a depot for servicing and maintaining the weapon system might be established.

Currently, United States law, as codified in the Arms Export Control Act, encourages the transfer of production technology to NATO and “major non-NATO allies.” Under this law, the transfer of military production technology is treated no differently than the sale of armaments. All that is required is that Congress be notified of contracts exceeding a \$14 million threshold. Congress is then given thirty days within which to contest the arrangement (fifteen days for NATO member countries).

Complexes, Not Cottage Industries

The result is what might be termed the proliferation of military-industrial complexes around the world. In the 1950s, only five developing countries produced major military equipment (aircraft, armored vehicles, missiles or naval craft), small arms, and/or ammunition. By the early 1980s this number had risen to 54, with 36 of these countries producing major military equipment. Brazil, India, Israel, Singapore, South Africa, South Korea, Taiwan and Turkey are among those countries with significant arms industries.

In a seminal 1991 study (*Global Arms Trade*), the Congressional Office of Technology Assessment chronicled the co-production phenomenon. “[I]n 1988 the United States was engaged in transferring the production technology for approximately 70 major weapons systems to foreign countries, about the same number as its NATO allies and the former Soviet Union combined.” Top-line equipment—M1A1 tanks, F-16 and MiG-31 fighters, Hawk and Patriot surface-to-air missiles, and diesel submarines—is being licensed. “Over the past two decades, these arrangements have contributed to the emergence of new centers of advanced defense industry and technology, first in Europe, next in the Western Pacific, and increasingly in developing nations around the globe,” OTA testified last June.

Glenn Rudd, Deputy Director of the Defense Security Assistance Agency (DSAA)—the Pentagon’s sales department—defended the policy in 1989 before the House Armed Services Committee, testifying “Selective use of co-production has facilitated the achievement of U.S. goals of enhanced cooperative defense. It’s helped to rebuild NATO and Japan. . . . It has helped standardization of equipment with friends and allies and promoted regional stability through the improvement of industrial capabilities of certain countries.”

Because of the added costs of building the necessary infrastructure and the requirement to pay licensing, royalty and technical assistance fees, licensed production or co-production costs much more than buying weapons off the shelf. It also propels co-producers toward the export market, in order to reduce the unit cost for their militaries and recoup investment costs.

Workers Protest Licensed Production

Although the GAO calculates that the Korean Fighter Program will result in more U.S. jobs gained than lost, it appears to be a delicate balance. U.S. production will be limited. Korea will be manufacturing most of the airframe for the last 72 of 120 aircraft. Of the remaining 48, European partners in the F-16 program are entitled to 15 percent participation from a previous offset. Only 12 of these planes are to be shipped whole; the other 36 will be exported in kits to be assembled in Korea.

On 25 June 1992, thousands of F-16 production line workers gathered at the gates of General Dynamics’ (GD) Fort Worth factory for a “Fairness Rally” in protest of the co-production deal. George Kourpias, International President of the Machinists and Aerospace Workers, told the demonstrators: “GD originally wanted to bring 500 Korean workers here. . . . our union put a stop to that scheme. At least for now. But the state of mind of the company has not changed. They still see no merit in working with us to convert to become a part of the post cold war era. . . . Right here in Fort Worth, 3000 of our brothers and sisters have been laid off in the past two years. . . . this week, another 500. . . . And the company wanted those of you left to teach Koreans how to do your jobs.” The Samsung Aerospace workers were later trained in Turkey, where GD has another F-16 co-production facility.

Members of Congress had pushed for Korean purchase of planes manufactured in the United States. Rep. Richard Gephardt (D-MO) said “General Dynamics, not unlike McDonnell Douglas in my district, has had to . . . lay-off a large number of U.S. workers in the past year. These workers are capable of manufacturing a majority of the parts to be used in the F-16 and the KFP, and they should be reemployed for this purpose.”

To such complaints, industry and government officials respond “Fifty percent of something is better than 100 percent of nothing.” ■

The decision to help establish a new military industry is now made on business terms; no longer are security implications the primary consideration. But at the same time, arms production and exports by our allies are increasingly viewed as a security threat, as well as undesirable econom-

ic competition. The chief of Naval Intelligence, Rear Admiral Edward Sheafer, Jr., testified before Congress in February 1992 that "Western Europe, our closest military partner and one of our largest economic partners, poses no military threat to the United States except through export of arms that are roughly equal to ours in overall lethality and technical sophistication."

Arms Control Implications

The increase in the number of arms suppliers profoundly complicates efforts to achieve limits on international arms transfers through negotiated arms control or multilateral arms embargoes. Opponents of limits on global arms sales already cite (rather self-servingly) the technologically sophisticated and commercially oriented European industry as the primary obstacle—"If we don't sell, the Europeans will."

It has been claimed that the withholding of parts, servicing or ammunition provides the U.S. a way to control the use of weapons it sells. However, the increasing number of suppliers of the same weapons and components is eroding any such leverage. For example, sixteen countries now produce parts for, or assemble, F-16 fighters. Thus, it was no surprise when the Pakistani Defense Minister said in February 1993 that, although the United States had cut off spare parts for Pakistan's F-16s (because of concerns about Pakistan's nuclear weapons program), "no plane has been grounded due to that reason." Pakistan, he said, was "acquiring necessary spare parts from the open market, though they were quite expensive."

Perhaps the most important security implication of co-production deals is the irrevocable transfer of industrial technologies and manufacturing know-how needed not only in conventional weapons production, but also for the possible development of long-range missiles and weapons of mass destruction. American sales of production technology to the Shah in the 1970s laid the foundation for Iran's current weapons industry; licensed production from the Soviet Union, China, Brazil and others built that of Iraq.

Violations Undermine U.S. Policies

Co-production contracts usually contain a provision to limit production levels and prohibit sale or transfer to third countries without prior U.S. consent. However, numerous cases of overproduction and illegal transfer have been reported.

Japan Aviation Electronics Industry (JAE) was fined \$10 million in 1992 for illegal sales of weapons components produced under an American license. JAE was authorized to manufacture gyroscopes and accelerometers for Japan's F-4 fighter jets, but from 1984-87, JAE transferred more than \$7 million worth of the navigational components to Iran, in contravention of the United States' declared policy against arms sales to that country.

In 1988 GAO disclosed that South Korea had violated the terms of a license for the manufacture of M-16A1 submachine guns, producing them in excess of the licensed

quantities and exporting them without U.S. approval. The State Department classified the names of the third-country recipients, but Rep. Larry Hopkins (R-KY) disclosed that they were "hostile." The Pentagon maintained it had been unaware of any violation. According to the DSAA's Glenn Rudd, the K-2 rifle is a "Koreanized" version of the M-16, "but different enough according to our Army people that it could not be considered the same rifle."

This points to another problem stemming from licensed production: the difficulty of controlling "indigenous" production that is based on licensed designs. Allegations have long persisted that Israeli arms manufacturers have illegally incorporated U.S. designs and technology in their weapons and exported them to countries (China, South Africa, Chile, Ethiopia . . .) the U.S. would not sell to, for human rights or foreign policy reasons.

For more information:

U.S. Congress, Office of Technology Assessment, *Global Arms Trade: Commerce in Advanced Military Technology and Weapons*, OTA-ISC-460 (Washington, DC: U.S. Government Printing Office, June 1991).

U.S. Congress, Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce, House of Representatives, *Federal Securities Laws and Defense Contracting—Part 3R*. (See, in particular, Hearing of 10 October 1985, "Offsets Associated with Foreign Military Sales") (Washington, DC: U.S. Government Printing Office, 1986).

U.S. Congress, Subcommittee on Investigations of the Committee on Armed Services, House of Representatives, *Review of Arms Coproduction Agreements*, Hearing of 22 March 1989 (Washington, DC: U.S. Government Printing Office, 1989).

U.S. Congress, Subcommittee on Economic Stabilization of the Banking Committee, House of Representatives, Hearing of 24 September 1984 (Washington, DC: U.S. Government Printing Office, 1985).

Executive Office of the President, Office of Management and Budget, "Offsets in Military Exports," December 1988 and 16 April 1990.

Richard A. Bitzinger, *The Globalization of Arms Production*, a report by the Defense Budget Project (Washington, DC), December 1993.

Michael T. Klare, "License to Kill," *In These Times*, 10-23 January 1994. ■

In a 1989 report, the GAO examined eighteen co-production programs and found at least five cases of unauthorized transfer. In addition, GAO examined five supposedly closed-out programs and found that four of them continued some production.

These examples and others point to a lack of enforcement of license terms. The DOD is responsible for negotiating major co-production agreements and managing their implementation (although military technology transfers are licensed under the State Department's Direct Commercial Sales program, as well); the State Department is responsible for oversight of resale of U.S.-supplied defense equipment, including co-production output, and for resolving issues of non-compliance. However, at a 1989 House Armed Services Committee hearing, former Rep. Nicholas Mavroules stated "there is virtually no ability of our government to monitor or enforce compliance."

At the same hearing, the GAO reported:

"With few exceptions, no co-production programs were directly monitored to ensure compliance with MOUs [Memorandum of Understanding—the contract governing the co-production deal] either by the responsible military services or by government personnel overseas. Although 15 of the 18 MOUs we examined contain restrictions on both production quantities and third-party sales, they do not require or permit U.S. monitoring or oversight. With the exception of the recent Stinger agreements, which give the United States the right to inventory missiles produced abroad, DOD co-production guidance and MOU provisions do not include monitoring for compliance with restrictions. . . ."

Time for a Change

Liberal co-production and licensed production of weapons may have been an appropriate response to the needs to rebuild post-World War II European arms industries and standardize NATO and other allied forces during the Cold War. But those needs have dissipated.

The U.S. is rightfully more worried now about regional instability than the spread of communism. Co-production deals have the effect of fomenting regional militarism through the proliferation of conventional weapons, while eroding suppliers' control over transferred military capabilities. They foster a more competitive arms market, which will lead to less discriminate sales and still more technology transfer in the future.

A laissez-faire policy on offsets makes less sense now than ever before. The government should be working to aid conversion of the U.S. economy away from Cold War-level military production toward more competitive commercial production. But by assisting foreign industries with U.S. commercial technology and access to the U.S. market, indirect offsets have the effect of supporting jobs in the arms industry, at least for the time being, at the cost of broad sector commercial employment over the long haul.

— Lora Lumpe

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(SOROS, continued from page 12)

While nation states averted their eyes, Soros's \$25,000,000 loan to Macedonia held it together. While philanthropists dithered, Soros funded an innovative International Science Foundation to get Russian scientists through a transitional crisis.

And as the industrialized world turned inward, Soros formed Open Society foundations, with 35 offices in 22 countries, and agendas touching every relevant issue. Meanwhile, 14 regional programs address such problems as health, media, contemporary arts, management training, publishing, scholarships, etc. An entire Central European University was created.

In all these detailed, layered and catalytic efforts, Soros philanthropy has unique advantages of being overseen: by a single knowledgeable person, rather than a committee; by a person who is a philosopher manque, with a native understanding of Europe; by an economist with a related incisive understanding of people and events; and by a person of proven enterprise and reinforced self-confidence who combines sophisticated idealism with pragmatism.

His philanthropy keeps him uncommonly well informed. And his personal standing, as a man of great wealth and high-level experience, make him a significant player in European events. Thus he is well positioned to make a real difference in a crucial era.

It was with this in mind that we invited George Soros tonight; to thank him for what he has already accomplished, to exchange ideas with him and, above all, to encourage him to persist.

Before and after dinner, Soros led seminar discussions of the problems associated with continuing the International Science Foundation (ISF), once his \$100 million contribution is spent. Soros volunteered that he would continue grants to ISF on a matching basis if the U.S. and Russian governments would participate.

FAS volunteered to help achieve this goal to the extent ISF needed help and sought, on behalf of the international scientific community, to accept the generous offer to continue funding the project.

During the award ceremony, in his response, Mr. Soros said that, to his surprise, he was accumulating enemies in the course of his philanthropy but that, so long as his work was appreciated by groups like FAS, he would be encouraged to continue. Since this was the goal of the award—to encourage George Soros to "persist" in the abrasive and difficult task of choosing, working with and sometimes terminating benefactions—his response was much appreciated.

The Federation is indebted to Senator Claiborne Pell, Chairman of the Senate Foreign Relations Committee, for sponsoring the use of the Capitol facilities for the event.

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Sixth International Workshop Addresses Comprehensive Test Ban Treaty and Warhead Elimination

Extending the Comprehensive Test Ban Treaty (CTB), cutting off production of fissile material, exchanging data on nuclear stockpile and disposing of plutonium were discussed at a two-day workshop in Washington, December 15 and 15.

Co-sponsored by the FAS Fund, Natural Resources Defense Council (NRDC) and the Moscow Physical-Technical Institute (MPTI), Richard Garwin, Chairman of the FAS Fund, Thomas Cochran, Senior Scientist at NRDC, and Anatoli Diakov, Director of the MPTI Center from Arms Control, Energy and Environmental Studies, moderated the sessions for fifteen American and eight Russian participants.

Group Divided on Design Programs

On the question of whether or not the U.S. and Russia needs to keep nuclear weapons design programs active, most of the Russians and some Americans (particularly weapons designers) who participated in the workshop favor continuation. Their argument is that a core of experience must be maintained to counter now-unknown circumstances and that only by designing weapons can that experience be assured.

Richard Garwin, Director of the FAS Project on the Technical Basis for Disarmament, however, believes weapons design capability can be safely archived. "We do not have to keep the pot of stew hot," he said. "We can put it in the deep freeze and stick it in the microwave later, when it is time to eat."

Christopher Paine of NRDC said "Some of these American weapons labs proposals come perilously close to what might be characterized . . . as a deliberate program to offset and thereby evade the intended restrictive effect of a CTB on the ability to design and certify the performance of new nuclear weapons."

"Moreover, a divisive U.S. public debate over the requirements for 'stockpile stewardship' will only serve to highlight the differences in technical capabilities, and feed speculation by non-weapon and nuclear threshold states that the U.S. is now finally agreeing to drop its opposition to a CTB precisely because it no longer regards it as a serious impediment to further nuclear weapons development."

The December workshop was the sixth time U.S. disarmament experts, government officials and nuclear program directors have met with their Soviet, now Russian and Ukrainian, counterparts under the sponsorship of FAS and NRDC. As a consequence of the end of the Cold War the composition of both U.S. and Russian participation has changed, with more and higher level representatives from governmental entities playing active roles.

For the first time since the inception of the FAS project in 1987, Frank von Hippel, now in the White House Office of Science and Technology Policy, represented the U.S. government. Richard Garwin, FAS Fund Chairman and

GARWIN REPORTS ON MEETING

Begun in a totally different era, the FAS-Former Soviet Union (FSU) working sessions on arms control now take place in the context of a commitment by the U.S. and Russia to START-I, START-II, and further reduction in strategic nuclear weaponry. It is also a context of reality—withdrawal of all tactical nuclear weapons from U.S. and Russian forces at sea and outside our national borders (with the exception of some hundreds of U.S. air-delivered weapons in support of NATO).

In Washington, many in the Clinton Administration and in the Congress recognize the importance of translating these commitments into action, and taking the next steps to disable and dismantle our nuclear weapons, and dispose of the highly enriched uranium (HEU) and plutonium from the excess warheads. Each of these tens of thousands of nuclear arms, intact, in the form of the metal "pit," or of the HEU or plutonium, constitutes a serious hazard of proliferation by theft or other means, and this at a time when they are, by definition, no longer valued as weapons by either Russia or the U.S.

Indeed, although a nominal 40 kg of HEU from one of them has an agreed value of some \$1 million, a few such quantities would probably bring one hundred or more times that amount on the black market. There is no agreement on the value of weapons grade plutonium. In the U.S., plutonium for use in reactors of current type has a negative value: the plutonium would require a greater expenditure to turn it into nuclear fuel than is required for the purchase of conventional uranium fuel.

Many of the Russians at the December workshop persist, however, in making the evident error of valuing plutonium at the cost of production, which is said to be at least six times the cost of HEU—hence the terms "blood plutonium" or the "national patrimony."

The working relationship created in the five previous workshops and extended by this latest one, provides a basis for understanding the Russian positions and for affecting both U.S. and Russian policy. In particular, the question of incentives at all levels, including that of MINATOM to retain control of potentially valuable materials and to receive collaboration and investment of value from the U.S., must be understood in the context of the overall national benefit to Russia and potential benefit to specific organizations and individuals, to the structural reform, and to the future of nuclear energy and an improved environment in Russia and the other former Soviet republics.

—Richard L. Garwin

noted scientist and inventor, assumed direction of the project in September 1993.

—Dorothy Preslar



FAS Chairman Robert Solow (left) and President Jeremy Stone (center), present the 1993 Public Service Award to George F. Soros, calling him:

*"The World's Greatest Investor
In the Defense of Democracy and Science"*

Philanthropist George Soros Receives Public Service Award

FAS gave its 1993 Public Service Award to philanthropist George Soros in an unprecedented evening event in the United States Capitol on December 10.

The citation honoring Soros, who has been the major underwriter of science in the former Soviet bloc since its collapse, said:

Talk about a Man for All Seasons! George Soros, a political economist, author, and self-made billionaire, is parlaying his financial success into a sustained effort to make philanthropy work for democracy and science—not only in his birthplace, Hungary, but throughout the entire former Soviet bloc and beyond.

(continued on page 10)

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