

Offsets in Defense Trade 1999

EXECUTIVE SUMMARY

This is the fourth annual report on Offsets in Defense Trade furnished to the Congress under authority of section 309 of the Defense Production Act of 1950, as amended. The U.S. Department of Commerce, Bureau of Export Administration (BXA) is responsible for preparing this report and assessing the impact of offsets on the U.S. defense industrial base. This fourth annual report reviews offset agreements and offset transactions data for the five-year period from 1993 to 1997.

Offsets arise as a precondition of bidding on and receiving military export contracts from foreign governments. Based on data provided by U.S. prime contractors, offset agreements have remained roughly equal in percentage terms over the last twenty years worldwide; however, the number of countries that have formal offset policies has increased. On a regional basis, European countries' offsets have increased from an average of 71.8 percent in the 1980's to 87.6 percent in the latest five-year period (1993-1997). Moreover, offset requirements are increasingly complex, leaving less flexibility for prime contractors to fulfill them. In addition, each country has a unique offset policy, increasing the difficulty for companies to implement and administer them on a global basis. Generally, most of the costs of fulfilling offset requirements are passed on to the purchasing government.

Aside from providing aggregate data on offset agreements and transactions, to give the reader a better understanding of the complexities facing U.S. prime contractors, this year's report examines five countries' individual offset policies. The countries selected - Canada, Finland, South Korea, Switzerland, and the United Kingdom - have in place some of the most stringent offset requirements in the world. In addition, the report includes a tabular summary of 23 country policies in Appendix D, and a sample form of an offset contract utilized by the Government of Denmark in Appendix E.

In summary, for the five-year period a total of 35 U.S. military prime contractors reported signing 231 new offset agreements with 30 nations (plus three groupings of nations). These new offset agreements were valued at \$19.0 billion and supported \$35.0 billion in export contracts. The average offset to sales ratio was 54.3 percent, and the average term of fulfillment was 84 months. About 70 percent of the new agreements' value was attributed to European nations. The European offset ratio was 88 percent, in striking contrast to only 29 percent for the rest of the world. This is due to the fact that the offset ratio of the rest of the world, with the exception of Canada (80 percent), was in every case below 60 percent, and in most below 40 percent.

About 70 percent of the value of new offset agreements were signed by military agencies within foreign governments, compared with about 25 percent by civilian agencies. The other 5 percent of signings were by foreign companies on behalf of foreign governments.

The United Kingdom compiled the highest value of new offset agreements of any nation, representing 26 percent of the total value. The United Kingdom's offset agreements averaged 100 percent of the export contract value. After the United Kingdom, the Netherlands was a distant second with 9.5 percent of the value of new agreements, with a offset to sales ratio of over 125 percent. Among other nations, Switzerland's share of the total value was 9 percent (76 percent offset ratio), Taiwan's 8.5 percent (17 percent ratio), Saudi Arabia's 7.5 percent (35 percent ratio), and Italy's 7.2 percent (100 percent ratio).

In terms of offset fulfillments, 35 companies reported a total of 2,851 offset transactions valued at \$11.8 billion. For these transactions, foreign governments provided offset credit of \$14.0 billion (18.7 percent above the actual value). The transactions were executed in 31 countries (plus three separate groupings of nations). Offset transactions resulted in sales of 180 different U.S. weapon systems, including some offset agreements made prior to 1993 (the first year the Commerce data collection). Of these transactions, 37.1 percent were direct offsets, 58.7 percent were indirect, and 4.2 percent were unspecified. About 75 percent of the actual value of transactions were purchases, subcontracting activity, or technology transfer.

Offset transactions were distributed among 1,006 different foreign companies and some public entities. Of these recipients, 19 obtained more than \$100 million in business. The total offset transaction value for these 19 was \$4.05 billion, equal to 35 percent of the total five-year value. Major recipients included Valmet and Kvaerner of Finland; Israeli Aircraft Industries; GEC Marconi, Smiths Industries, and GE of the United Kingdom; Arianespace, Thompson and Matra of France, Samsung of South Korea; and collectively, the Airbus partners (Aerospatiale, British Aerospace, CASA, and Daimler) also received a substantial share.

As for 1997, the latest offset data received, 13 U.S. prime contractors reported 58 new offset agreements valued at \$3.85 billion in support of \$5.84 billion in export contracts. The offset ratio was 65.9 percent, and the average completion term for these agreements was 74 months. This offset ratio is down from the 1996 ratio of 76 percent and the 1995 ratio of 81 percent. Europe accounted for 80 percent of the value of new agreements.

As for offset fulfillments in 1997, 17 companies reported 574 offset transactions valued at \$2.69 billion in 25 countries. For this, the prime contractors received \$3.24 billion in offset credit (20 percent more than the actual value). European nations accounted for 83 percent (actual value) of the transaction activity. In comparison, as a group, European nations gave little extra offset credit, representing 76 percent of the world total. In 1997, nearly one-third (\$802 million) of the transactions (actual value) were fulfilled in the United Kingdom. Almost all were subcontracts or purchases of aerospace parts and components. Finland was next with \$515 million and the Netherlands third with \$280 million.

This year's report also contains an analysis of the impact offsets have on the U.S. aerospace sector. Aerospace is clearly the sector most impacted by offsets. Between 1993 and 1997, about 90 percent of both new offset agreements and offset transactions were associated with aerospace exports. In the case of offset transactions, however, not all the products were actually themselves aerospace-related. Of the \$11.8 billion in offset transactions, only 54 percent (\$6.4 billion) were identified as aerospace products. (This may be understated because of difficulty in properly identifying a large number of products listed as indirect offsets.)

An aerospace industry requires a large and advanced economic system to flourish, which few economies can muster; it is also one of the last industries to develop in an advanced economy. The sector requires large sums of capital for investment and development, and it is difficult to make sustainable profits. Many countries invest in aerospace capabilities for strategic or other reasons; most actually operate at a loss.

Entry into the industry is more accessible through the parts sector; which is thus the most vulnerable segment of the aerospace industry. Moreover, aerospace is not a growth industry in the United States. The U.S. industry is quickly restructuring and attempting to "right" size by shifting more load onto subcontractors and the lower production tiers. This

results in greater responsibility for the subcontractors and makes the industry even more vulnerable to offsets.

With a decrease in demand, the distinction between military and commercial aerospace parts is diminishing. To help a foreign firm capture U.S. military business through offsets is also to help that firm become more competitive in commercial markets. Aircraft and aircraft engine parts imports into the United States more than doubled from 1993 to 1998. Imports of parts for the civil sector expanded, especially after 1995. From 1995 to 1998, the import of parts for the civil sector more than doubled, increasing faster than the growth in civil aircraft business as a whole. Parts imports for the military sector - a sector that did not grow - increased 63 percent through 1997. By 1998, military parts imports had grown by 74 percent.

During the five-year period (1993-1997), total military aircraft and aircraft engine parts imports were estimated at \$13 billion. Over 20 percent of these imports were related to direct aerospace offsets (subcontracts), plus an unknown portion of (military related) indirect aerospace offsets (up to another 12 percent). Thus, as much as one-third of current military parts imports could be the direct result of offsets. In addition, the cumulative effects of previous offsets (a value on which we have little specific information) could drive the import total even higher.

Another comparison was made between the export of military aircraft and direct offset transactions that referenced military aircraft exports. Between 1993 and 1997, the U.S. exported \$10.15 billion in military aircraft. Direct offsets referenced to military aircraft totaled \$2.77 billion, or over 27 percent of the total value. Subcontracts were \$1.92 billion, while technology transfer was \$330 million, and all else totaled \$521 million.

In conclusion, offsets provide substantial benefits to foreign firms, and in the process deny business to otherwise competitive U.S. firms. In some cases these U.S. firms, which are primarily small- and medium-sized manufacturers, might be displaced. It should be noted, that a small portion, almost 4 percent, of offsets requirements are fulfilled by U.S. companies.

Findings

1997 Data

-Thirteen companies reported signing 58 new offset agreements with an offset value of \$3.85 billion. The new offset agreements supported \$5.84 billion in export contracts and had an offset ratio of 66 percent, down from 76 percent in 1996. However, the offset ratio for European countries averaged 81.47 percent (offsets by NATO and an Eastern European country reduced the overall average), down from 99.7 percent in 1996.

-Seventeen companies reported 574 offset transactions with 18 countries with an actual value of \$2.69 billion and an offset credit value of \$3.24 billion. The credit value exceeded the actual value by 20.4 percent.

-Offset transactions were distributed as follows: 38.3 percent direct, 57.1 percent indirect, and 4.6 percent unspecified. Slightly more than 80 percent of the value of the transactions was purchases, subcontracts and technology transfers.

5 Year Data, 1993 - 1997

-A total of 231 new offset agreements valued at \$19 billion during the five-year period 1993-1997 were signed with 30 nations. The export contracts these new agreements supported were valued at \$35 billion and the offset ratio was 54.3 percent. The average term for completing the offset was seven years. Of the 231 agreements, 103 were for 100 percent or more of the export contract value. Of the new agreements, 93 of these were with European countries.

-Europe accounted for about 70 percent of the value new offset agreements; the United Kingdom alone was responsible for 26 percent. Other countries with significant shares of the value of new agreements were the Netherlands with 9.5 percent, Switzerland with 9 percent, Taiwan with 8.5 percent, Saudi Arabia with 7.5 percent, and Italy with 7.2 percent.

-By value, 68.5 percent of new offset agreements were signed by military agencies within foreign governments; about 25 percent were signed by civilian agencies, and the remainder were signed by foreign companies acting on behalf of a foreign government.

-A total of 2,851 offset transactions valued at \$11.76 billion were completed in 32 countries. Offset credits equaled \$13.96 billion, 18.7 percent more than the actual value. European countries gave offsets credits of 14 percent over the actual value compared to credits averaging over 30 percent for the rest of the world.

-Offset transactions were allocated as follows: 37.1 percent direct, 58.7 percent indirect, and 4.2 percent unspecified. The actual value of indirect offsets was \$6.9 billion, direct \$4.4 billion, and \$492 million unspecified. Indirect offset credits were \$8.3 billion, 20 percent higher than actual values; direct were \$5.1 billion, 17 percent higher; and unspecified offset credits were \$564 million, 15 percent higher than actual values.

-Offset transactions were distributed as follows:

1,506 Purchases: indirect by definition, valued at \$4.47 billion (38 percent of the total value). Credit value was \$4.85 billion.

620 Subcontracts: direct by definition, valued at \$2.93 billion (25 percent of the total value). Credit value was \$3.17 billion.

256 Technology Transfers: about half direct and half indirect, valued at \$1.42 billion (12 percent of the total value). Credit value was \$1.83 billion.

57 Credit Arrangements: nearly all indirect, valued at \$1.04 billion (9 percent of the total value). Credit value was \$1.2 billion.

412 All Other Transactions: Training valued at \$569 million (Credit \$865 million), Investments valued at \$490 million (Credit \$928 million), Co-production valued at \$274

million (Credit the same), Licensing valued at \$115 million (Credit \$140 million) and miscellaneous valued at \$444 million (Credit \$708 million).

-Offset transactions by U.S. Standard Industrial Classification code (major industry groups) from 1993-1997:

Group 37 - Transportation Equipment, \$5.41 billion equaling 46 percent of the total value of offset transactions, half of which were direct.

Group 36 - Electrical Equipment, \$1.65 billion, one-third were direct offsets.

Group 35 - Industrial Machinery, \$964 million.

Group 38 - Measuring & Analyzing Instruments, \$592 million.

Group 73 - Business Services, \$545 million.

Group 61 - Credit Services, \$541 million.

Group 87 - Technical Services, \$423 million.

Aerospace

-The U.S. aerospace industry represents the major target of offset activity. From 1993 to 1997, about 90 percent of the value of new offset agreements and offset transactions were generated in conjunction with U.S. aerospace exports.

-Transactions involving aerospace products and services totaled at least \$6.4 billion or 54.5 percent of the value of all transactions for the five-year period.

-Aerospace offset transactions were mostly direct in contrast to all offsets, which were mostly indirect. About 64 percent (\$4.08 billion) of the aerospace transactions were direct; 29 percent (\$1.87 billion) were indirect; and 7 percent (\$451 million) were unspecified. Also, 44 percent (\$2.80 billion) of the transactions were subcontracts; 24 percent (\$1.55 billion) were purchases; and 15 percent (\$952 million) were technology transfers.

-Offsets can affect the aerospace parts trade and therefore have implications for U.S. subcontractors. However, the actual displacement of American subcontractors due to offsets is unknown.

-Aircraft and aircraft engine parts imports into the United States more than doubled from 1993 to 1998. Imported parts for the civil sector, which experienced significant growth in U.S. market share after 1995, increased by 119 percent. Parts imports for the military sector increased 74 percent between 1993 and 1998, despite a slight drop in the military market.

-Offsets played a significant role in the increase of military related aircraft and engine parts imports. In the period from 1993 to 1997, military parts imports rose 63 percent from \$2.23 to \$3.64 billion (five-year total was \$13.03 billion). Over the same period,

aerospace subcontracts (direct offsets) totaled \$2.8 billion (i.e., 21.5 percent of the total military parts imports). An additional \$1.55 billion (11.9 percent) were purchases (indirect offsets), some of which were probably also defense-related.

-Offsets impact both military and commercial markets. The same Aerospace company is frequently the supplier of both military and commercial parts. With defense contracts on the decline, firms rely more on both markets to remain viable.

-Offsets are used by foreign vendors to gain entry into the U.S. market, or to supplement emerging commercial markets. For example, Europe's Airbus consortium provides business opportunities to European aerospace parts suppliers. Offset agreements can supplement the business of Airbus parts vendors by providing them additional access to the U.S. military market. This expands the Airbus parts vendors' sales base and helps them compete, potentially displacing American suppliers in both commercial and military markets.

-Defense downsizing has increased the average age of military aircraft in the U.S. fleet. This has shifted subcontractor work toward replacement and repair parts. Offset agreements associated with the purchase of off-the-shelf aircraft provide an opportunity for foreign vendors to supply parts and components (direct offsets) for aircraft destined for the host country, and an additional opportunity to compete in the existing U.S. (and foreign) replacement market (indirect offsets).

-Several trends in the U.S. aerospace industry relate to offsets:

The U.S. aerospace industry, long a major industrial and strategic portion of the U.S. economy, is no longer a growth sector. The constant dollar value of aerospace production declined 43 percent relative to Gross Domestic Product and 30 percent relative to all U.S. manufacturing from 1980 to 1996.

U.S. aerospace parts suppliers showed no growth in productivity over the last 15 years. This is related to declining sales, under-utilized capacity, pricing pressures from overseas competitors, and cost control pressures from domestic airframe and aircraft engine customers.

Most new aerospace business is outside the United States. For the next 10-15 years, about two-thirds of the commercial aerospace market is forecast to be outside the United States. This will almost certainly lead to greater foreign sourcing. As a corollary, it will increase the exposure of American companies to competing against state supported foreign companies at all levels of the supply chain.

Foreign ownership of U.S. aerospace parts suppliers has increased, primarily by companies in leading offset nations. A noted example of a foreign takeover is the Rolls-Royce purchase of Allison Gas Turbine in 1995 and later its acquisition of Lucas (Western) Gear in 1997. Some general products that are now under foreign ownership include high-pressure instrumentation, aircraft fuel tanks, and composite materials.

Country Policies

Based on the review of official offset policies from five countries - Canada, Finland, South Korea, Switzerland, and the United Kingdom - offset requirements are increasingly complex and radically different between countries. This increases both the cost of offset implementation and the administrative burden on the U.S. prime contractor.

More countries are moving toward 100 percent offset requirements. Offset contracts are becoming more complex and lengthy and impose a major burden on the prime contractor in terms of cost, time, and labor.

Very few countries clearly define criteria for the determination of offset credit (i.e., multipliers) in their formal offset policies. This creates uncertainty and causes difficulty for the prime contractor to estimate offset costs and plan offset fulfillment strategy.

A few countries now require the prime contractor to provide extra benefits in addition to the formal offset requirements. These extra benefits, such as marketing or consulting assistance, are not counted toward offset credit, but impose an added burden on the prime contractor.

Some countries, such as Canada, will not allow U.S. prime contractors to include existing foreign subcontractors as offset recipients. This encompasses subcontractors that were previously integrated into the U.S. prime contractor's supplier base as a result of prior offset obligations.

On-Going Actions On Offsets

The Department of Commerce has completed four annual Congressional reports on offsets, all documenting the growing use of offsets and expansion of offset demands by foreign governments. Previous reports have recommended international consultations on offsets, both bilateral and multilateral, as the best method to reduce or eliminate offset demands. Significant progress was made in the last two years to develop a domestic support for such an effort. Discussions were held with the interagency community, prime contractors, subcontractors, labor, and trade associations. While opinions differed, all noted the need for a dialogue with our allies on this complex subject, particularly with European nations, as they have the highest percent of offsets and the majority of U.S. defense exports.

Consultations

In the last year, exploratory discussions were conducted with our international trading partners. These discussions were pursued on a bilateral basis, with the goal of multilateral consultations. The objective of these discussions is to reduce or eliminate offsets. The U.S. Trade Representative (USTR) has requested a working group on offsets with our European Union (E.U.) counterparts through the Transatlantic Economic Partnership (TEP). The President announced the TEP initiative in May 1998. USTR is awaiting a formal response from the E.U.

Further, a Department of Defense (DOD) led interagency group conducted preliminary discussions with Canadian and Dutch government representatives on offsets. The interagency group plans to have more detailed discussions in the future with these governments. In addition, efforts are being made to open discussions with other European countries, Australia, Egypt, Israel, and Turkey.

Reports

Offsets were mentioned as a trade concern for the first time in the 1999 USTR Title VII report on unfair foreign government procurement practices. The report alerted governments around the world that the United States is seeking a way to conduct defense trade without offsets.

**Excerpt from Annual Report on Discrimination
on Foreign Government Procurement,
Office of the United States Trade Representative, April 30, 1999**

When purchasing defense systems from U.S. defense prime contractors, many U.S. trading partners require compensation in the form of offsets as a condition of purchase in either government-to-government or commercial sales of defense articles and/or defense services. Offsets include mandatory co-production, licensed production, subcontractor production, technology transfer, counter trade, and foreign investment. Offsets may be directly related to the weapon system being exported, or they may take the form of compensation unrelated to the exported item, such as foreign investment or counter trade.

Prime contractors view offset arrangements as a necessity for success in the international marketplace. However, offset requirements cause prime contractors to select subcontractors based on their being located in the country requiring the offset versus best value, thereby adversely affecting potential U.S. subcontractors. Originally designed to enhance allied national security, offsets increasingly have become economic development tools for the countries that demand them. Furthermore, there has been a recent trend to fulfill offset requirements with non-defense products versus defense products.

Congressional Actions

On June 29, 1999 Representative John Tierney (D-MA) sponsored a congressional hearing on offsets in defense trade for the U.S. House of Representatives' Committee on Government Reform, Subcommittee on Criminal Justice, Drug Policy, and Human Resources. Representatives from the Departments of Commerce and Defense, Aerospace Industries Association, Economic Policy Institute, and International Aerospace Machinists Union provided testimony. Senator Russell Feingold (D-WI) testified as well. Assistant Secretary Roger Majak testified for the U.S. Department of Commerce, Bureau of Export Administration. Mr. Majak's testimony focused on Commerce's annual reporting requirement on offsets in defense trade.

Rising congressional attention on offsets has culminated in a new bill promulgated by Senator Feingold and Representative Tierney entitled "Defense Offsets Disclosure Act of 1999," which has been incorporated into the American Embassy Security Assistance Act (H.R.2415). The purpose of this new bill is to increase attention to the use of offsets in international defense trade, primarily through the creation of a Presidential Commission on offsets. The Commission would include representatives from industry, government, academia, and Congress. (At the time of publication of this report the Bill was in Senate/House conference committee.)