
Offsets in Defense Trade

Prepared by U.S. Department of Commerce

[The following material is extracted from the seventh annual report (July 2003) on offsets in defense trade prepared pursuant to Section 309 of the *Defense Production Act of 1950*¹ (DPA), as amended. This report covers offset agreements and offset transactions entered into from 1993 through 2000. Some of the footnotes and tables have been omitted from this excerpt; however, the footnote and table numbers remain the same as in the original document. The complete report is available at the following web site: <http://www.bax.doc.gov/DefenseIndustrialBasePrograms/OSIES/offsets/7thOffsetsReport.htm>.]

Executive Summary

The Department of Commerce's Bureau of Industry and Security (BIS),² has been delegated responsibility for preparing the reports required under Section 309. This report is prepared after analyzing offset data reported to the Department of Commerce by U.S. defense firms, in compliance with regulations established under Section 309 of the DPA. To assess the impact of offsets in defense trade, the Department of Commerce obtained data from U.S. defense firms involved in defense offsets.

1993-2000 Offset Activity

Total offset activity during 1993 to 2000 can be measured by the number and value of new offset agreements entered into between U.S. defense contractors and foreign governments, and the number and value of individual offset transactions carried out in fulfillment of offset agreements during the eight-year reporting period.

Offset Agreements, 2000

U.S. defense contractors reported entering into twenty-five new offset agreements with ten different countries in 2000. The new offset agreements had a total value of \$5.1 billion, and accounted for 89.7 percent of total U.S. defense export contract values (\$5.7 billion). In comparison with the previous seven years, offset agreements as a percentage of total defense export contract sales were highest in 2000.

In 2000, European nations received offsets equal to 116 percent of the total export values, the highest offset percentage on record for any single year of the eight-year reporting period. For non-European nations, the offset percentage was 50 percent in 2000.

Offset Agreements, 1993-2000

U.S. companies reported entering into 345 offset agreements with thirty-two countries during the time period from 1993 to 2000. U.S. companies reported export sales of 177 different defense systems or subsystems with a total value of \$48.6 billion. Offset agreements related to those export contracts were valued at \$29.8 billion, or 61 percent of the export contract value. Sales of aerospace defense systems (i.e., aircraft, engines, and missiles) were valued at \$42.8 billion and accounted for nearly 90 percent of the total export contracts.

On a regional basis, Europe accounted for only 47 percent of total U.S. defense export contracts, while new offset agreements with Europe accounted for more than 70 percent of total offset agreements (by value). Asia and the Middle East each accounted for 14 percent of new offset agreements, and the Americas accounted for two percent. Non-European countries accounted for approximately one-third of new offset agreements (by value) but 53 percent of the

¹ Codified at 50 U.S.C. app. § 2099 (2000).

² On April 18, 2002, the Bureau of Export Administration changed its name to the Bureau of Industry and Security.

total value of defense export contracts. While the non-European nations had higher defense export contract totals, Europe had a much greater offset impact on U.S. industry because of the higher offset percentages required by European purchasers.

Offset Transactions, 2000

U.S. companies reported offset transactions with a total actual value of \$1.7 billion – down eight percent from the 1999 total of \$1.8 billion, and the lowest total actual transaction value reported in any of the eight years. A decrease in offset transactions in 2000 was anticipated because of a drop in defense sales and offset agreements in previous years. However, increasing levels of defense sales (and higher related offset percentages) in 2000 likely will lead to more new offset agreements and, thus, an increase in offset transactions in the future.

Offset Transactions, 1993-2000

During the reporting period, U.S. companies reported 4,425 offset transactions executed in thirty-five countries. These offset transactions were related to 227 defense systems under existing offset agreements. The actual value of the offset transactions from 1993 to 2000 was just under \$18 billion.

Conclusions

The defense environment changed in the 1990s, reflecting both the general retrenchment of military expenditures and tougher offset policies and enforcement worldwide. In recent years, offsets have become more important in winning procurements and, ultimately, in access to foreign markets by U.S. companies. Offset agreements with values exceeding 100 percent of the total export contract value are occurring regularly; in fact, 100 percent seems to be the baseline.

From the U.S. perspective, Europe is clearly the central focus of offset activity, dominating both new offset agreements and the number of offset transactions with U.S. companies. Because 90 percent of offset agreements are aerospace-related, concerns about the competitiveness of U.S. aerospace prime contractors and the aerospace infrastructure have increased.

Using data submitted by industry and data from the Bureau of the Census, BIS estimates offsets maintained 41,666 work-years annually in the U.S. defense industry between 1993 and 2000. However, the data reported by U.S. companies also show that offsets displaced 9,688 work-years annually in the lower-tier companies that are suppliers or subcontractors to large U.S. defense companies.

The U.S. aerospace trade surplus fell from its all-time high of \$40 billion in 1998 to approximately \$27 billion in 2000. Imports of aerospace products have increased rapidly in the last decade for a number of reasons, including offsets. Offset agreements calling for aerospace subcontracting arrangements lead to increased imports, to the extent that they result in U.S. prime contractors importing subcontracted parts and systems rather than relying on domestic sources. Aerospace-related imports have increased regardless of the state of the market and despite the fact that the United States spends more on aerospace research and development than any other nation.

In the coming year, using authorities granted under the DPA, the Department of Commerce is committed to work with U.S. industry, the Department of Defense and other agencies, and foreign governments to analyze the impact of offsets on all parties. The Department of Commerce does not encourage or regulate the use of offsets in defense trade, and recognizes that offsets are market distorting. However, we also recognize that offsets are a part of the current international defense trade environment. We will seek ways to mitigate the negative effect of offsets on competition. Our goal is to support the U.S. defense industry and to ensure a robust and vibrant industrial base at all levels.

Background

Legislation and Regulations

In 1984, the Congress enacted amendments to the DPA, which included the addition of Section 309 addressing offsets in defense trade.³ Section 309 of the *Defense Production Act* (DPA) required the President to submit an annual report on the impact of offsets on the U.S. defense industrial base to the Congress's then-Committee on Banking, Finance, and Urban Affairs of the House of Representatives⁴ and the Committee on Banking, Housing, and Urban Affairs of the Senate.

Initially, the Office of Management and Budget coordinated the interagency process of preparing the report for the Congress. Other agencies involved in the process included the Departments of Commerce, Defense, Labor, State, and Treasury, and the Office of the

U.S. Trade Representative

In 1992, Section 309 of the DPA was amended, and the Secretary of Commerce was given the responsibility of preparing the report for the Congress, on the President's behalf, and was directed to function as the President's Executive Agent for carrying out responsibilities under Section 309 of the DPA.⁵

Under section 309, the Secretary of Commerce is authorized to develop and administer the regulations necessary to collect offsets data from U.S. defense exporters. The Secretary of Commerce delegated this authority to the Bureau of Industry and Security, which published its first offsets regulations in the *Federal Register* in 1994.⁶

The 1992 amendments to Section 309 of the DPA made other changes to the offset data collection process. The amendments lowered the offset agreement reporting threshold from \$50 million to \$5 million for U.S. firms entering into foreign defense sales contracts subject to offset agreements. Under the regulations, firms report all offset transactions for which they receive offset credits of \$250,000 or more. Every year, U.S. companies report offset agreement and transaction data for the previous calendar year to BIS. The data elements collected each year from industry are listed in Section 701.4 of the Department's offset regulations.

The Official U.S. Government Policy

The official U.S. government policy on offsets in defense trade was developed by an interagency offset team. The policy was announced by the President in April 1990, in a statement issued by the White House Press Secretary.⁷ In 1992, it was set forth as a Policy of Congress as follows:

- In General

Recognizing that certain offsets for military exports are economically inefficient and market distorting, and mindful of the need to minimize the adverse effects of offsets in military

3 See Pub. L. 98-265, April 17, 1984 , 98 Stat. 149.

4 Section 309 of the *Defense Production Act* was amended in 2001 to change the name of the House committee to the "Committee on Financial Services of the House of Representatives." The annual report must be provided to the Committee on Banking, Finance, and Urban Affairs of the Senate as well. See 50 U.S.C. app. § 2099(a)(1).

5 See Pub. L. 102-558, Oct. 28, 1992 , 106 Stat. 4198; see also Part IV of Executive Order No. 12919, 59 *Federal Regulation* 29525 (June 3, 1994).

6 See 59 *Federal Regulation* 61796, December 2, 1994 , codified at 15 C.F.R. § 701.

7 Congress incorporated this policy statement into law with the *Defense Production Act Amendments of 1992* (Pub. L. 102-558, Title I, Part C, § 123, 106 Stat. 4198).

exports while ensuring that the ability of United States firms to compete for military export sales is not undermined, it is the policy of the Congress that:

- No agency of the United States government shall encourage, enter directly into, or commit United States firms to any offset arrangement in connection with the sale of defense goods or services to foreign governments;

- United States government funds shall not be used to finance offsets in security assistance transactions, except in accordance with policies and procedures that were in existence on March 1, 1992;

- Nothing in this section shall prevent agencies of the United States government from fulfilling obligations incurred through international agreements entered into before March 1, 1992; and

- The decision whether to engage in offsets, and the responsibility for negotiating and implementing offset arrangements, reside with the companies involved.

- Presidential Approval of Exceptions

It is the policy of the Congress that the President may approve an exception to the policy stated in subsection (a) after receiving the recommendation of the National Security Council.

- Consultation

It is the policy of the Congress that the President shall designate the Secretary of Defense to lead, in coordination with the Secretary of State, an interagency team to consult with foreign nations on limiting the adverse effects of offsets in defense procurement. The President shall transmit an annual report on the results of these consultations to the Congress as part of the report required under section 309(a) of the DPA.

In 1999, the offset policy was supplemented by provisions contained in the *Defense Offsets Disclosure Act of 1999*.⁸ Congress made the following findings:

- A fair business environment is necessary to advance international trade, economic stability, and development worldwide, is beneficial for American workers and businesses, and is in the United States national interest.

- In some cases, mandated offset requirements can cause economic distortions in international defense trade and undermine fairness and competitiveness, and may cause particular harm to small- and medium-sized businesses.

- The use of offsets may lead to increasing dependence on foreign suppliers for the production of United States weapons systems.

- The offset demands required by some purchasing countries, including some close allies of the United States, equal or exceed the value of the base contract they are intended to offset, mitigating much of the potential economic benefit of the exports.

- Offset demands often unduly distort the prices of defense contracts.

- In some cases, United States contractors are required to provide indirect offsets which can negatively impact nondefense industrial sectors.

⁸ See Pub. L. No. 106-113, Div. B, § 1000(a)(7) 113 Stat. 1536, 1510A-500 to 1501A-505 (1999) (enacting into law Subtitle D of Title XII of Division B of H.R. 3427 (113 Stat. 1501A-500) as introduced on November 17, 1999) (found at 50 U.S.C. Appx. § 2099, History; Ancillary Laws and Directives).

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- Unilateral efforts by the United States to prohibit offsets may be impractical in the current era of globalization and would severely hinder the competitiveness of the United States defense industry in the global market.

The Defense Offsets Disclosure Act of 1999 continues with the following declaration of policy:

It is the policy of the United States to monitor the use of offsets in international defense trade, to promote fairness in such trade, and to ensure that foreign participation in the production of United States weapons systems does not harm the economy of the United States.

Offsets Terminology

There are several basic terms used in discussions of offsets in defense trade.

- **Offsets**

Compensation practices required as a condition of purchase in either government-to-government or commercial sales of defense articles and/or defense services as defined by the *Arms Export Control Act* (22 U.S.C. §2751, et seq.) and the *International Traffic in Arms Regulations* (22 C.F.R. § 120-130).

- **Direct Offsets**

Contractual arrangements that involve defense articles and services referenced in the sales agreement for military exports. These transactions are directly related to the defense items or services exported by the defense firm and are usually in the form of co-production, subcontracting, technology transfer, training, production, licensed production, or financing activities.

- **Indirect Offsets**

Contractual arrangements that involve defense goods and services unrelated to the exports referenced in the sales agreement. These transactions are not directly related to the defense items or services exported by the defense firm. The kinds of offsets that are considered indirect include purchases, investment, training, financing activities, marketing/exporting assistance, and technology transfer.

- **Co-production**

Overseas production based upon government-to-government agreement that permits a foreign government or producer(s) to acquire the technical information to manufacture all or part of a U.S. origin defense article. Co-production includes government-to-government licensed production, but excludes licensed production based upon direct commercial arrangements by U.S. manufacturers.

- **Licensed Production**

Overseas production of a U.S.-origin defense article based upon transfer of technical information under direct commercial arrangements between a U.S. manufacturer and a foreign government or producer.

- **Subcontractor Production**

Overseas production of a part or component of a U.S.-origin defense article. The subcontract does not necessarily involve license of technical information and is usually a direct commercial arrangement between the defense prime contractor and a foreign producer.

- **Overseas Investment**

Investment arising from an offset agreement, often taking the form of capital dedicated to establishing or expanding a subsidiary or joint venture in the foreign country.

- **Technology Transfer**

Transfer of technology that occurs as a result of an offset agreement and that may take the form of research and development conducted abroad, technical assistance provided to the subsidiary or joint venture of overseas investment, or other activities under direct commercial arrangement between the defense prime contractor and a foreign entity.

Countries and Regions

For ease of analysis, and in some cases to protect company confidentiality, countries and country groups actively requiring offsets in connection with purchases of U.S. defense systems during the 1993-2000 period were divided into four geographic regions:

- Europe,
- The Middle East and Africa,
- North and South America, and;
- Asia.

The countries found in each region are listed in Table 1-1.

**Table 1-1 Purchasing Countries and Groups
Requiring Offsets Agreements, by Region**

Europe	Middle East and Africa
Austria	Egypt
Belgium	Israel
Czech Republic	Kuwait
Denmark	Saudi Arabia
EPG - The European Participating Group (Belgium, The Netherlands, Norway)	South Africa
Turkey	United Arab Emirates
Finland	North and South America
France	Brazil
Germany	Canada
Greece	
Italy	Asia
Luxembourg	Australia
North Atlantic Treaty Organization	Indonesia
The Netherlands	Malaysia
Norway	New Zealand
Portugal	Singapore
Slovenia	South Korea
Spain	Taiwan
Sweden	Thailand
Switzerland	
United Kingdom	

Source: U.S. Department of Commerce/BIS Offsets Database

Statistical Overview

Each year BIS gropples with classifying transactions correctly. In some cases, companies do not provide enough information to BIS so that it may correctly categorize the transactions. The result is a growing category called miscellaneous, which is now the fourth largest category of offsets after technology transfer.

Miscellaneous offsets include marketing assistance, various studies, administrative costs, such as office expenses and travel, grants of various kinds, and many other incidentals, all valued at \$1.6 billion. Further review indicated marketing assistance includes brokering and advertising, although the specific action is not always clear. Brokering means a foreign purchase by a firm other than the exporter and would normally be classified as a purchase (indirect offset). A study could be reclassified as technology transfer, although both the exporter and the foreign entity may benefit. BIS will continue to try to resolve these ambiguities for next year's report.

A summary of offsets activity for 1993 through 2000 is provided in Table 2-1.

Table 2-1
General Summary of Offsets Activity
(in \$ millions)

Year	Export Value	Offset Value	Percent Offset	Offset Agreements			Defense Systems
				Companies	Agreements	Countries	
1993	\$13,957.0	\$4,806.7	34.44%	18	30	17	27
1994	\$4,792.4	\$2,048.7	42.75%	18	49	20	38
1995	\$7,402.0	\$6,034.1	81.52%	19	45	18	33
1996	\$2,987.8	\$2,270.7	76.00%	15	50	19	32
1997	\$5,822.8	\$3,831.8	65.81%	13	57	19	42
1998	\$3,257.8	\$1,846.6	56.68%	11	44	17	34
1999	\$4,681.4	\$3,851.4	82.27%	10	45	11	36
2000	\$5,653.1	\$5,072.6	89.73%	7	25	12	18
Total	\$48,554.3	\$29,762.7	61.30%	37	345	32	177

Year	Offset Transactions			Companies	Transactions	Countries	Defense Systems
	Actual Value	Credit Value	Multiplier				
1993	\$1,815.1	\$2,162.1	1.191	24	440	27	60
1994	\$1,891.1	\$2,161.5	1.143	21	550	26	57
1995	\$2,713.7	\$3,390.8	1.250	20	670	27	69
1996	\$2,731.5	\$3,098.9	1.135	21	623	26	72
1997	\$2,725.5	\$3,276.2	1.202	18	577	26	59
1998	\$2,364.8	\$2,684.6	1.135	19	582	30	65
1999	\$2,080.4	\$2,824.1	1.358	13	512	25	63
2000	\$1,671.5	\$1,942.0	1.162	13	471	24	60
Total	\$17,993.5	\$21,540.3	1.197	40	4425	35	226

Source: BIS Offsets Database

Types of Offset Transactions

Table 2-2 shows offset transactions by type of offset, as well as the percentage distribution of each type of offset for each year from 1993 to 2000. Table 2-2 also shows the total actual and credit values of the offset transactions for each year. The percentage difference between the actual

value and the credit value for an offset transaction is the multiplier, which is shown at the bottom of Table 2-2.

Table 2-2
Offset Transactions by Type

Year	Total	Direct	Actual Value			% Distribution		
			Indirect	Unspecified	Direct	Indirect	Unspecified	
1993	\$1,815.1	\$583.0	\$1,106.0	\$126.1	32.12%	60.93%	6.95%	
1994	\$1,891.1	\$600.7	\$1,129.5	\$160.9	31.76%	59.73%	8.51%	
1995	\$2,713.7	\$1,064.1	\$1,649.6	NR	39.21%	60.79%	NR	
1996	\$2,731.5	\$1,097.5	\$1,553.8	\$80.1	40.18%	56.89%	2.93%	
1997	\$2,725.5	\$1,030.3	\$1,570.7	\$124.4	37.80%	57.63%	4.57%	
1998	\$2,364.8	\$1,464.2	\$895.3	\$5.4	61.92%	37.86%	0.23%	
1999	\$2,080.4	\$690.2	\$1,351.0	\$39.1	33.18%	64.94%	1.88%	
2000	\$1,671.5	\$577.7	\$997.7	\$96.1	34.56%	59.69%	5.75%	
Total	\$17,993.5	\$7,107.8	\$10,253.7	\$632.0	39.50%	56.99%	3.51%	

Year	Total	Direct	Credit Value			% Distribution		
			Indirect	Unspecified	Direct	Indirect	Unspecified	
1993	\$2,162.1	\$708.2	\$1,323.0	\$130.9	32.75%	61.69%	6.05%	
1994	\$2,161.5	\$774.1	\$1,221.9	\$165.4	35.81%	56.53%	7.65%	
1995	\$3,390.8	\$1,257.9	\$2,132.9	NR	37.10%	62.90%	NR	
1996	\$3,098.9	\$1,188.7	\$1,795.6	\$114.7	38.36%	57.94%	3.70%	
1997	\$3,276.2	\$1,171.1	\$1,952.3	\$152.8	35.75%	59.59%	4.66%	
1998	\$2,684.6	\$1,621.8	\$1,055.1	\$7.8	60.41%	39.30%	0.29%	
1999	\$2,824.1	\$1,121.8	\$1,599.5	\$102.8	39.72%	56.64%	3.64%	
2000	\$1,671.5	\$577.7	\$997.7	\$96.1	34.56%	59.69%	5.75%	
Total	\$21,540.3	\$8,511.3	\$12,255.3	\$773.7	39.51%	56.89%	3.59%	

Source: BIS Offsets Database
NR = Non Reported

The credit value is a value that some foreign governments provide as an incentive for certain kinds of offset transactions. This value varies greatly by country and by the kind of transaction (i.e., purchase, technology transfer, investment, etc.), but is normally more than the actual value. For the entire database, the multiplier is 1.197, which means the credit value is 19.7 percent more than the actual value.

Offset Transaction Categories

In addition to classifying offset transactions by type (direct or indirect), offset transactions are identified by various categories, which more particularly describe the nature of the arrangement or exchange. These categories include the following:

Purchases	Subcontracts	Technology Transfers
Credit Assistance	Training	Overseas Investment
Co-production	Licensed Production	Miscellaneous

Table 2-3 presents a summary of offset transactions by category for the eight year reporting period (1993-2000). A brief description of each category follows:

Table 2-3
Offset Transactions by Category and Type

Transaction Category	Total	Actual Values in Dollars Millions			Percentage by Column Total			
		Direct	Indirect	Unspecified	Total	Direct	Indirect	Unspecified
Purchases	\$6,340.8	.0	\$5,973.2	\$367.6	35.24%	.00%	58.25%	58.16%
Subcontracts	\$5,040.0	\$4,980.1	.0	\$59.9	28.01%	70.07%	.00%	9.48%
Technology Transfers	\$2,188.5	\$876.1	\$1,222.1	\$90.2	12.16%	12.33%	11.92%	14.28%
Miscellaneous	\$1,584.4	\$252.4	\$1,322.2	\$9.8	8.81%	3.55%	12.89%	1.55%
Credit Assistance	\$1,138.1	\$4.0	\$1,134.1	.0	6.32%	0.06%	11.06%	.00
Training	\$674.1	\$417.8	\$254.4	\$1.9	3.75%	5.88%	2.48%	0.29%
Overseas Investment	\$460.3	\$48.7	\$334.1	\$77.5	2.56%	0.69%	3.26%	12.26%
Coproduction	\$439.1	\$438.0	.0	\$1.1	2.44%	6.16%	.00%	0.18%
Licensed Production	\$128.3	\$90.7	\$13.6	\$24.0	0.71%	1.28%	0.13%	3.80%
Total	\$17,993.5	\$7,107.8	\$10,253.7	\$632.0	100.00%	100.00%	100.00%	100.00%

Transaction Category	Total	Actual Values in Dollars Millions			Percentage by Column Total			
		Direct	Indirect	Unspecified	Total	Direct	Indirect	Unspecified
Purchases	\$6,753.7	.0	\$6,381.7	\$372.0	31.35%	.00%	52.07%	48.08%
Subcontracts	\$5,351.4	\$5,287.7	.0	\$63.7	24.84%	62.13%	.00%	8.23%
Technology Transfers	\$2,949.6	\$1,240.3	\$1,617.6	\$91.8	13.69%	14.57%	13.20%	11.86%
Miscellaneous	\$2,191.1	\$481.0	\$1,637.6	\$72.4	10.17%	5.65%	13.36%	9.36%
Credit Assistance	\$1,291.9	\$66.2	\$1,225.7	.0	6.00%	0.78%	10.00%	.00%
Training	\$1,078.0	\$637.4	\$427.2	\$13.4	5.00%	7.49%	3.49%	1.73%
Overseas Investment	\$1,304.7	\$247.2	\$929.3	\$128.2	6.06%	2.90%	7.58%	16.56%
Coproduction	\$443.4	\$442.3	.0	\$1.1	2.06%	5.20%	.00%	0.14%
Licensed Production	\$176.5	\$109.1	\$36.1	\$31.2	0.82%	1.28%	.29%	4.04%
Total	\$21,540.3	\$8,511.3	\$12,255.3	\$773.7	100.0%	100.0%	100.0%	100.00%

Transaction Category	Total	Multiplier			Total	Number of Transactions		
		Direct	Indirect	Unspecified		Direct	Indirect	Unspecified
Purchases	1.065	.00	1.068	1.012	2,131	0	2,107	24
Subcontracts	1.062	1.062	.000	1.063	1,029	1,015	0	14
Technology Transfers	1.348	1.416	1.324	1.017	441	193	224	4
Miscellaneous	1.383	1.906	1.239	7.392	358	75	278	5
Credit Assistance	1.135	16.558	1.081	.000	79	6	73	0
Training	1.599	1.526	1.679	7.038	181	80	96	5
Overseas Investment	2.835	5.076	2.782	1.654	65	3	56	5
Coproduction	1.010	1.010	.000	1.014	112	111	0	1
Licensed Production	1.376	1.203	2.656	1.301	30	23	5	2
Total	1.197	1.197	1.195	1.224	4,425	1,506	2,859	60

Source: BIS Offsets Database

Purchases result in overseas production of goods or services usually for export to the United States. Purchases are always classified as indirect offsets to distinguish them from subcontracts because the purchases are of items unrelated to the exported defense system. During the time period from 1993 to 2000, purchases represented 35.2 percent of the value of all offset transactions. Purchases had a low multiplier of 1.065. The U.S. exporter does not always make the purchase. They can also involve brokering and marketing assistance that result in purchases by a third party.

Subcontracts result in overseas production of goods or services for use in the production or operation of a U.S. exported defense system subject to an offset agreement. Subcontracts are always classified as direct offsets. They are typically a contractual arrangement between the U.S. prime contractor and a foreign producer. During the reporting period, subcontracts represented 28 percent of the value of all offset transactions, and 70 percent of the value of all direct offsets. Like purchases, subcontracts had a low multiplier 1.062.

Technology transfer includes research and development conducted abroad, exchange programs for personnel, data exchanges, integration of machinery and equipment into a recipient's production facility, technical assistance, education and training, manufacturing know-how, and licensing and patent sharing. Technology transfer, as used here, is normally accomplished under a commercial arrangement between the U.S. prime contractor and a foreign company. A major subcontractor may also accomplish the technology transfer on behalf of the U.S. prime contractor. During the reporting period, 40 percent of technology transfers were classified as direct offsets and 60 percent were classified as indirect offsets. Altogether, technology transfers accounted for approximately 12 percent of the value of all offset transactions. The multiplier for technology transfers was 1.348.

Credit assistance includes direct loans, brokered loans, loan guarantees, assistance in achieving favorable payment terms, credit extensions, and lower interest rates. Approximately 6.3 percent of the value of total offset transactions during the period from 1993 to 2000 (or \$1.14 billion) were characterized as credit assistance. Credit assistance is nearly always classified as an indirect offset transaction. (Only \$4 million of the credit assistance transactions were classified as direct offsets during the reporting period). The multiplier for credit assistance was 1.135.

Training relates to the production, maintenance, or actual use of the exported defense system or a component thereof. Training may be required in areas such as computers, foreign language skills, engineering capabilities, or management. This category can be classified as either direct or indirect offset transactions, although more than 60 percent of the value of training during the reporting period was classified as a direct offset transaction. Training accounts for only 3.75 percent of the total value of offset transactions. The multiplier for training was 1.599.

Overseas investments arising from offset agreements have the highest aggregate multiplier (2.834) of any category of offset transactions, indicating the desire of foreign governments to garner foreign investment. However, overseas investments account for only 2.7 percent of the value of all offset transactions, which may reflect its undesirability to U.S. prime contractors. It is also interesting to note that 43 of the 64 overseas investment transactions reported for 1993 through 2000 received no extra credit at all (i.e., had a multiplier of 1 or less). Overseas Investments sometimes took the form of capital invested to establish or expand a subsidiary or joint venture in the foreign country, but investments in third-party facilities also were reported (and such investments received the highest multiplier). Overseas investments usually were classified as indirect offsets; only 10 percent of overseas investment transactions were classified as direct.

Co-production is overseas production based upon a government-to-government agreement that permits a foreign government or producer to acquire the technical information to manufacture all or part of a U.S.-origin defense system. Co-production is always classified as a direct offset. It includes government-to-government licensed production, but excludes licensed production based upon direct commercial arrangements by U.S. manufacturers. All co-production reported for 1993 to 2000 was for component parts or equipment used in larger defense systems, and virtually all co-production reported during this period was aerospace-related. During the reporting period, co-production accounted for 2.4 percent of the value of offset transactions and had a multiplier of only 1.010 the lowest among all offset transaction categories.

Past co-production transactions have involved duplicating major production facilities in foreign countries (at the expense of the foreign government) for the assembly of entire defense systems, such as aircraft. Co-production arrangements of this kind generally impose the highest cost penalty on the foreign government of any category: after co-producing the items directly related to the defense system purchased, the production facilities can sit idle for lack of contracts to fulfill. Some countries pressure prime contractors for assembly contracts related to future sales to third countries.

Licensed production is overseas production of a U.S.-origin defense article. Licensed production differs from co-production in that it is based on direct commercial arrangements between a U.S. manufacturer and a foreign entity as opposed to a government-to-government agreement. In addition, licensed production virtually always involves a part or component for a defense system, rather than a complete defense system. Licensed production is the smallest among the offset categories, accounting for only 0.7 percent of the total value of offset transactions. The multiplier for licensed production was 1.376.

Countries and Regions

For ease of analysis, and in some cases to protect company confidentiality, countries actively requiring offsets in connection with defense export sales during the 1993-2000 period were categorized into four geographic regions: Europe, North and South America, the Middle East and Africa, and Asia. The countries found in each region, together with the aggregate percentage offsets required and the multiplier for each country, are shown in Table 2-5.

**Table 2-5
Countries with Offset Agreements and Transactions By Region**

Country	Percent Offsets	Multiplier
Europe		
Austria	W	1.000
Belgium	W	1.002
Czech Republic	W	W
Denmark	100.0%	1.114
Finland	W	1.071
France	W	1.722
Germany	100.0%	1.000
Greece	111.4%	2.129
Italy	98.5%	1.000
Luxembourg	NR	W
Netherlands	124.1%	1.280
Norway	99.7%	1.363
Portugal	27.9%	2.186
Slovenia	W	NR
Spain	91.6%	1.273
Sweden	103.9%	1.141
Switzerland	77.9%	1.008
United Kingdom	<u>90.0%</u>	<u>1.007</u>
Regional total	92.3%	1.156
Middle East and Africa		
Egypt	NR	W
Israel	50.8%	1.037
Kuwait	30.3%	W
Saudi Arabia	34.9%	1.000
South Africa	W	NR
Turkey	58.8%	1.086
United Arab Emirates	<u>55.3%</u>	<u>2.333</u>
Region Total	44.0%	1.139
Asia		
Australia	35.1%	1.045
Indonesia	NR	1.213
Malaysia	37.3%	1.118
New Zealand	W	W
Singapore	W	2.352
South Korea	40.8%	1.412
Taiwan	20.6%	2.306
Thailand	<u>24.9%</u>	<u>W</u>
Region Total	26.2%	1.499
North and South America		
Brazil	W	W
Canada	<u>89.7%</u>	<u>1.010</u>
Region total	90.8%	1.013

Notes NR = Non Reported

W = Withheld to Protect Company Proprietary Information.

Source: BIS Offsets Database

Impact of Offsets on the U.S. Defense Industrial Base

Defense Preparedness

Offsets enhance the defense preparedness of the United States in several ways. Exports and the revenue generated by export sales are crucial to producers of U.S. defense systems and, by extension, to U.S. foreign policy and economic interests; almost all purchasers of U.S. defense systems require offset agreements as a condition of the sale. Exports of major defense systems help defray high overhead costs for the U.S. producer and help maintain production facilities and expertise, should they be needed to respond to a national emergency. Exports also provide additional business to many U.S. subcontractors and lower-tier suppliers, promote interoperability of weapon systems between the United States and allied countries, and add positively to U.S. international account balances. An offset package, particularly one with a high proportion of subcontracting or purchases, can undo or reduce many of these benefits.

However, offsets also can have negative effects on the nation's defense preparedness and the broader U.S. economy. Viewed in isolation, offsets often reduce spending in the United States and increase spending and investment in foreign countries. U.S. subcontractors displaced through direct offsets by foreign suppliers are among the groups most directly affected by offsets. Such direct offsets create foreign competitors for U.S. industry and run the risk of increasing the proliferation of technology to third countries. Moreover, with indirect offsets outpacing direct offsets 60 to 40 percent, the defense industrial base may not bear the full impact of offsets.

Employment

Offsets also affect employment levels in the defense sector. Although it is difficult to precisely determine the impact of offset agreements and transactions on employment in the U.S. defense sector, BIS has developed a reliable estimate by using employment data collected by the Bureau of the Census. Given that sales of aerospace weapon systems account for nearly 90 percent of the value of defense exports connected with offset agreements, this method appears to provide a reliable estimate.

For the period from 1993 to 2000, industry reported approximately \$48.6 billion in defense export contracts with an offset agreement attached. According to the *Annual Survey of Manufactures*,⁹ the value added per employee for the aerospace product and parts manufacturing industry in 2000 was \$145,802. Dividing this figure into the defense export sales total results in a total of 333,329 work-years that were supported over the eight-year period by defense exports associated with offset agreements, or approximately 41,666 work-years annually.

However, by their very nature, subcontracting and purchasing offset transactions are most likely to shift sales from U.S. suppliers to overseas firms. Other categories of offset transactions, in the short or long run, can shift sales from U.S. suppliers as well. To be conservative, BIS bases its estimate of employment impacts only on subcontracting and purchasing transactions. Between 1993 and 2000, subcontracting transactions were valued at \$5 billion and purchasing transactions were valued at \$6.3 billion, for a total of \$11.3 billion for the period, or an average of \$1.41 billion per year in displaced sales. Dividing \$1.41 billion by \$145,802 (the value added by each worker in the aerospace industry in 2000) results in the loss of approximately 77,502 work-years over the eight-year period, or 9,688 work-years annually. Based on these calculations, it appears that offset agreements and transactions had a net positive effect on employment in the defense sector during the period from 1993 to 2000.

9 See the U.S. Census Bureau website at <http://www.census.gov/prod/www/abs/industry.html>.

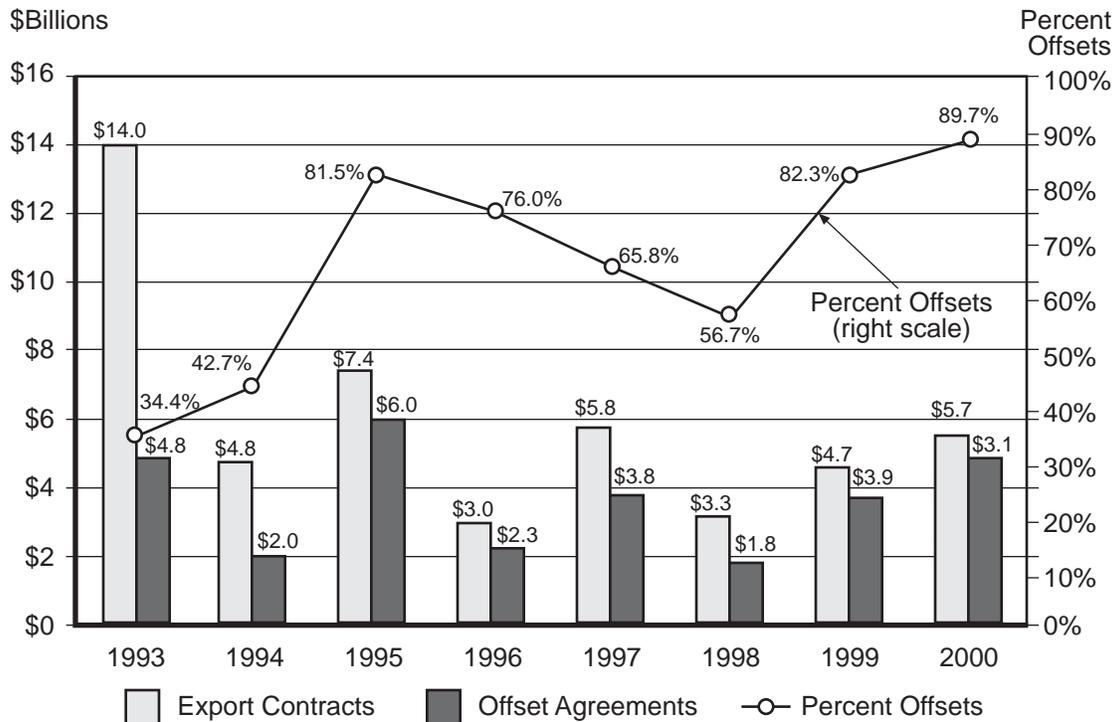
Offset Agreements Activity 1993-2000

Overview

From 1993 to 2000, 37 U.S. firms reported entering into 345 offset agreements with a total value of \$29.8 billion. These offset agreements were made with foreign purchasers in 32 different countries and were associated with defense export contracts valued at \$48.6 billion. The exports involved 177 U.S. weapon systems. The value of the offset agreements represented 61.3 percent of the total value of the related export contracts during the entire reporting period.¹⁰ The average term for completing the offset agreements was 111 months, or slightly more than nine years.¹¹ The percentage of offset agreements to export contracts (by value) reached a new high in 2000 of 89.7 percent, eclipsing the previous high of 82.3 from 1999. The lowest percentage was recorded in 1993 at 34.4 percent.

The annual values of defense export contracts and offset agreements (including offset percentages) are presented in Chart 4-1. In a sharp upward trend, the value of the offset agreements as a percentage of the value of defense export contracts increased an average of approximately six percent per year over the eight-year reporting period.¹²

Chart 4 - 1 Reported Export Contracts and Offset Agreements Annually, 1993-2000 (in \$ billions)



Source: BIS Offsets Database

¹⁰ The figure of 61.3 percent is weighted to the annual values of export contracts and agreements. An unweighted average can be calculated by averaging the annual percentages of offsets. The unweighted result was 66.1 percent.

¹¹ A weighted average was calculated based on the value and term of each offset agreement.

¹² The percent increase was calculated using a linear least-squares function of only the annual percent values.

Offsets Concentration

The data reported by U.S. companies show that a small number of companies, countries, and weapon systems dominated offset agreements during the reporting period. The top five U.S. companies (of thirty-seven companies reporting data on offsets) accounted for 80.5 percent of the defense export contracts and 81.4 percent of the offset agreements during the reporting period. This high level of market concentration reflects the high costs of modern defense systems and the small number of firms that produce them. Due to the complexity and expense involved, only a large, multi-disciplined company could produce and deliver modern defense systems. In addition, each exporter company coordinated the activities of hundreds, if not thousands, of subcontractors and suppliers that contributed to the systems production, as well as the work of thousands of employees.

Offsets also appear to be concentrated in a few purchaser countries. The top five countries (of a total of 32 involved in the reported offset activity) accounted for 58.4 percent of the total defense system purchases and 55.6 percent of the total offset agreements. The top 10 countries represented 78.7 percent of defense system purchases and 79.2 percent of the offset agreements. The fact that relatively few countries accounted for the bulk of offset activity indicates that relatively few countries were in the market for big-ticket defense equipment. Most countries cannot afford these systems. By dominating offset activity, these few countries also dominated the impact offsets have on the U.S. defense industrial base. In addition, these countries set a visible standard for offset demands for other countries to imitate.

The data reported by U.S. companies also show that specific defense systems were in high demand overseas. The top five weapon systems (of the 177 weapon systems sold) were all aircraft. These exports accounted for 45.6 percent of the value of all export contracts and 39.2 percent of the offset agreements during the reporting period. The top 10 defense systems accounted for 61.5 percent of the export contracts and 59.4 percent of the offset agreements during the reporting period. These data show once again that big-ticket items such as aircraft constituted the bulk of offset activity.

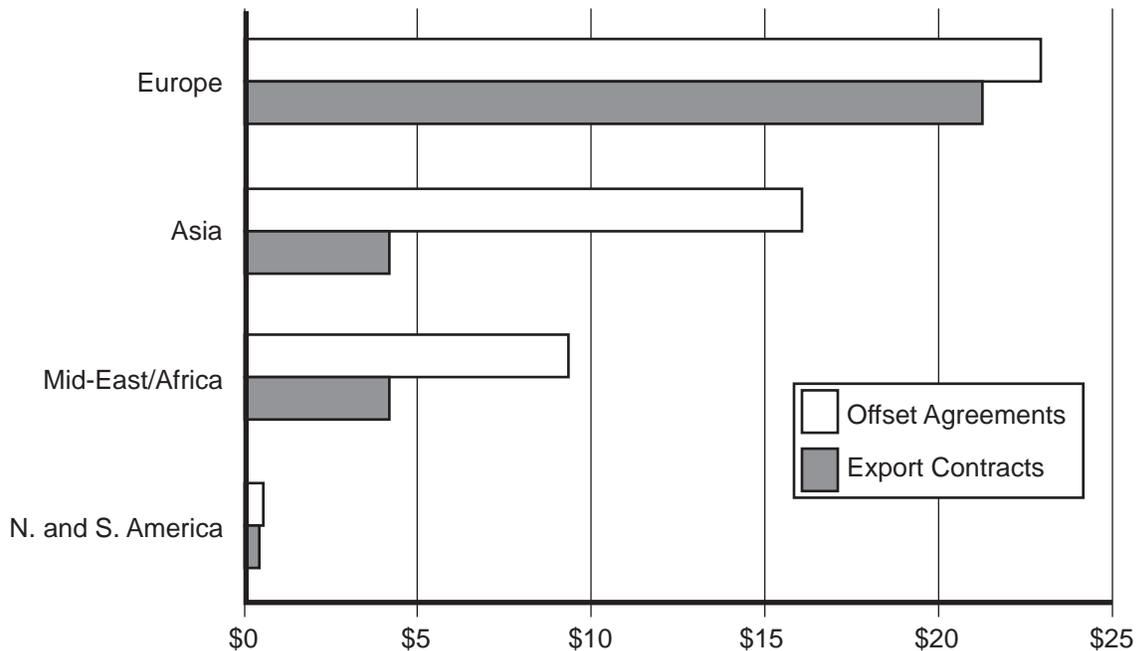
Regional Distributions

European countries dominated offset activity during the reporting period. Europe alone accounted for more than 70 percent of offset agreements during the reporting period, while at the same time accounting for less than 50 percent of the value of U.S. defense export contracts. Asian countries ranked a distant second in both categories, accounting for only 14 percent of offset agreements and 33 percent of related U.S. export contract values. Middle Eastern and African countries also had significant shares, accounting for nearly 14 percent of offset agreements and 19 percent of U.S. export contract business. Countries in North and South America (Canada and Brazil) were less significant, accounting for approximately one percent of the value of both offset agreements and related U.S. defense export contracts. Chart 4-2 shows regional totals of U.S. defense export contracts and offset agreements for 1993 to 2000.

Are Offset Demands Increasing?

The data appear to show that offset demands are not only increasing, but more countries outside of Europe are demanding greater offsets. One reason for this is that the supply of defense systems greatly exceeds the demand for such items. In the last decade, shrinking worldwide defense expenditures and the overcrowding in the defense supplier sector have forced defense industries in many nations to consolidate. Overcapacity still plagues the defense sector, including in the United States, as governments have been slow to retrench.

Chart 4 - 2
Regional Totals of Export Contracts and Offset Agreements
1993-2000 (in \$ billions)



Source: BIS Offsets Database

However, as sales opportunities narrowed, competition for such sales became more intense. Because one element of competitiveness is the offset package, U.S. suppliers are forced to offer greater offsets to win sales. In addition, foreign purchasing governments are under pressure to sustain their indigenous defense companies and, accordingly, are demanding more offsets. Higher than normal overhead related to low levels of capacity utilization in defense industries coupled with competitive pressures on prices have also squeezed corporate profits. While the need to export has grown stronger, so has the exporters' willingness to meet foreign purchasers' offset demands.

In recent years, the world economy has been sluggish, with historically higher unemployment in the last decade notably in Europe and Japan. These conditions drained national treasuries and, therefore, significant public outlays for foreign-made weapon systems become controversial, which leads to higher offset demands to deflect political pressure.

In addition, many countries now have formalized their offset requirements by establishing a minimum percentage for offsets at which to begin negotiations. In these situations, competing firms must design a winning offset package based on the desirability of the defense system, their ability to deliver offsets, and past offset performances. Many U.S. defense systems, such as aircraft and missiles, have an edge in the international market because of their superior performance capabilities. This alone may make U.S. exports the first choice of the foreign purchasing government and may actually help keep offsets at or near a minimum. However, the actual content of the offset package often is very desirable and helps close the deal. By this logic, less desirable weapon systems would pay an offset premium, thereby driving up offsets and

further enhancing the foreign government's bargaining position with respect to all potential sellers.

Offset demand in Eastern European countries is another factor leading to a rise in overall offset percentages. Poland's announced intention to purchase a fighter aircraft with a requirement of offsets of up to 200 percent of the value of the contract underscores a desire on the part of Central and Eastern European countries to use offsets as a policy tool for economic development. While this percentage is high, developmental offsets (i.e., those calling for direct investment, credit assistance, and technology transfer) usually warrant higher multipliers, which soften the real impact of offsets on the U.S. defense industrial base. Nonetheless, it appears offset demands in Central and Eastern Europe will be high in the future.

In conclusion, Western Europe may be nearing a ceiling in offset demands, which moderates the degree offsets can be increased. The rest of the world has plenty of room to grow and has shown signs of demanding more offsets. With Western European producers providing more competition to U.S. firms in the future, offsets are almost certain to increase in other regions of the world.

Aerospace Offset Issues

Offsets affect the U.S. aerospace industry more than any other major economic sector. These offsets have been documented in detail in previous offset reports.¹⁸ Since aerospace-related exports made up the majority of export sales and related offset agreements reported, the impact of offsets on the aerospace industry is a good indicator of the effect of offsets on the industrial competitiveness and trade of the United States as a whole.

Imports of aerospace products into the United States have increased rapidly in the last decade for a variety of reasons, one of which is the increase in aerospace-related offsets. Aerospace-related imports have increased in both strong and weak economies and despite the fact that the United States spends more on defense and commercial aerospace research and development than any other nation. As shown in Chart 6-1, aerospace imports increased from \$12.2 billion in 1993 to \$28 billion, an all time high in 2000. Aerospace exports dropped from an all time high of \$64.1 billion in 1998 to \$54.7 billion in 2000.

The U.S. aerospace trade surplus reached an all time high of \$40 billion in 1998, but then declined to approximately \$27 billion in 2000. In the same two-year cycle, aerospace imports grew by nearly 21 percent.¹⁹

Importance of Export Markets

To highlight the importance of the export market for U.S. aerospace companies, more than half of the unit sales of newly built military aircraft were exported during the eight-year reporting period of 1993 to 2000. Table 6-1 compares aircraft acquired by the U.S. Department of Defense for use by the armed services with military aircraft exports. During the eight year reporting period, Defense Department acquisitions exceeded exports in only one year 1994. In 1997, military aircraft exports were more than double U.S. acquisitions. Overall, during the reporting period, military exports were nearly 57 percent of total unit sales.

18 See e.g., "U.S. Department of Commerce Report," *Offsets in Defense Trade*, October 1999, pages 35-55.

19 See Aerospace Industries Association publication, *Aerospace Facts and Figures*, 2001/2002 (and prior editions)

Chart 6-1
International Trade in Aircraft, Aircraft Engines, and Parts
1993-2000 (in \$ billions)

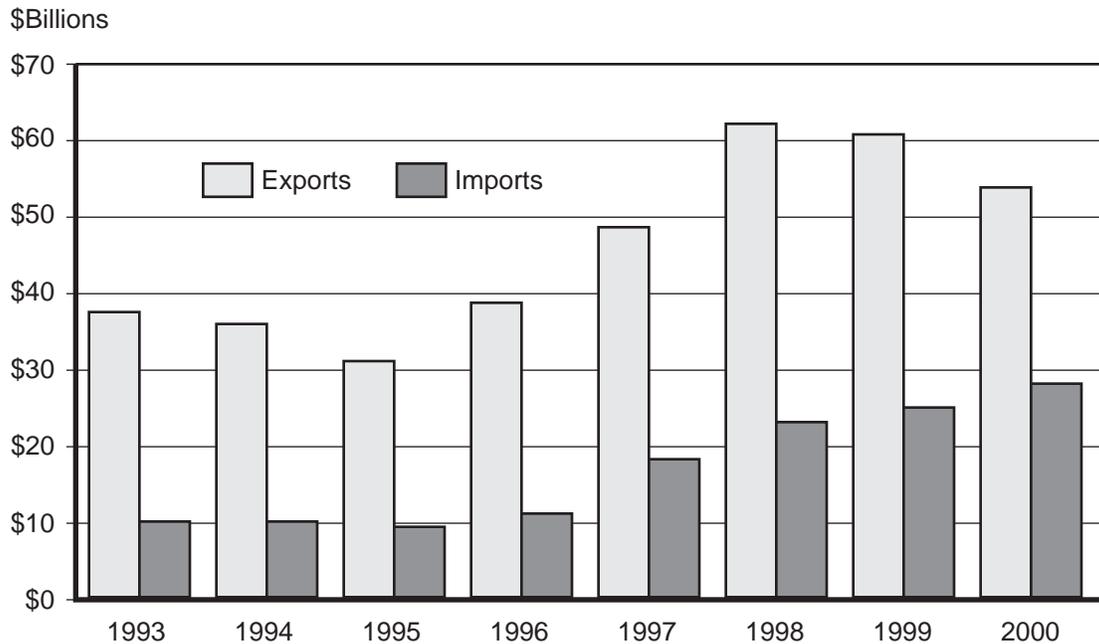


Table 6-1
Importance of Defense Aircraft Exports
(Number of Newly Constructed Aircraft)

<u>Year</u>	<u>Total Military Aircraft Acquisition</u>		<u>Military Aircraft Exports</u>			<u>Export as Percent of</u>
	<u>Total</u>	<u>U.S. Defense</u>	<u>Total</u>	<u>FMS</u>	<u>Direct</u>	<u>Total</u>
1993	955	437	518	146	372	54.2%
1994	764	418	346	69	277	45.3%
1995	811	354	457	108	349	56.4%
1996	558	242	316	106	210	56.6%
1997	488	151	337	181	156	69.1%
1998	418	149	269	175	94	64.4%
1999	359	133	226	114	112	63.0%
2000	<u>333</u>	<u>138</u>	<u>195</u>	<u>42</u>	<u>153</u>	<u>58.6%</u>
Totals	4,686	2,022	2,664	941	1,723	56.9%

Note: FMS = Foreign Military Sales.

Direct = Direct Exports by U.S. Defense Firms.

Source: Aerospace Industries Association, *Aerospace Facts and Figures*, various issues.

Trends in Aerospace

The aerospace infrastructure is becoming more global. Although the United States continues to maintain its position in first-tier integrator companies, global sourcing at the second and lower tiers is rising rapidly as an acceptable option, more so in the commercial area than in the military. In the last decade, some of the advantages of local sourcing, such as cost reductions in

communications and transportation, have faded. In addition, many important aerospace technologies are available worldwide. Many European firms are technically comparable and some superior to U.S. firms in the production of various critical components, including gearboxes, ball screws, bearings, fasteners, forgings, investment castings, aluminum, diesel engines, machine tools, ejection seats, and steel. Other important trends in the U.S. aerospace industry are as follows:

- The U.S. aerospace industry which occupies a major industrial and strategic position in the U.S. economy is not a growth sector. The constant dollar value of aerospace production actually declined 18 percent relative to the Gross Domestic Product and 14 percent relative to all U.S. manufacturing from 1993 to 2000.

- U.S. prime contractors are becoming more specialized in the research, design, integration, and final assembly of aircraft. More work and responsibility is being shifted to major sub-assemblers, who have their own set of suppliers. The competition among major sub-assemblers, who provide major sub-components such as gas turbine engines, electrical systems, hydraulics, and cockpits, is fierce and leading to more global sourcing outside of the United States.

- U.S. aerospace parts and components suppliers showed virtually no growth in productivity over the last 15 years. This is likely a result of declining sales, under-utilized capacity, antiquated defense procurement processes, and pricing pressures from overseas competitors, as well as pressure from customers.

- Most new aerospace business is outside the United States. For the next 5-10 years, approximately two-thirds of the commercial aerospace market is forecast to be outside the United States. This will almost certainly lead to greater foreign sourcing and will pressure lower-tier U.S. suppliers to consider selling internationally.

- Foreign ownership of U.S. aerospace part and component suppliers continues to increase. Foreign ownership usually leads to more imports initially, at least until the foreign owner becomes established in the United States.

Aerospace Offsets

The following points highlight the effects of offsets on the aerospace industry during the 1993 to 2000 reporting period:

- The U.S. aerospace industry represents the major target of offset activity. Aerospace system export contracts totaled \$42.8 billion (89 percent of all exports related to offsets) and accounted for \$25.9 billion of the offset agreements (87 percent of the agreement total).

- Transactions involving aerospace products and services totaled (at least) \$11.27 billion, or 62.6 percent of the value of all transactions for the eight-year reporting period. (In addition, 10-15 percent of the transactions classified as unspecified may also be aerospace items.)

- Approximately 58 percent (\$6.53 billion) of the aerospace transactions were classified as direct offset transactions; 37 percent (\$4.15 billion) were indirect; and five percent (\$586 million) were unspecified. Also, 42 percent (\$4.75 billion) of the offset transactions were categorized as subcontracts; 26 percent (\$2.95 billion) as purchases; and 14 percent (\$1.56 billion) as technology transfers. These three categories combined accounted for 82 percent of the total value of aerospace-related offset transactions.

- Aerospace parts trade has expanded rapidly and the U.S. aerospace industry maintains a surplus in parts trade. Imports of parts and components for aircraft and aircraft engines into the United States more than doubled, from \$5.8 billion in 1993 to \$11.8 billion in 2000. This includes

both civilian and military items. Exports of parts and components also grew, from \$13.8 to \$23.7 billion an expansion of 72 percent during the reporting period.

- Offsets impacted both military and commercial aerospace markets. Aerospace subcontractor companies normally supply both military and commercial parts.

- Offsets played a significant role in the increase of aircraft and engine parts imports. Military part and component imports rose 82 percent from \$2.23 in 1993 to \$4.1 billion in 2000. The eight-year total was \$25.4 billion. Over the same period, aerospace subcontracts (direct offsets) totaled \$4.75 billion (i.e., 18.7 percent of the total military parts imports).

- An additional \$2.95 billion of aerospace offsets were purchases (indirect offsets). Adding purchases and subcontracts together, the resulting figure of \$7.69 billion represents 10.75 percent of total part and component imports of \$71.5 billion (civilian \$46.1 billion and military \$25.4 billion) for the period.²⁰

- Offsets may permanently displace U.S. companies in certain circumstances. It is a fallacy to think of offsets as one-time events that end once an offset agreement is completed. A foreign offset recipient can continue selling product in the United States long after the initial offset transactions are completed. In addition, technology transfers, training, credit assistance, and other offset transactions can bolster the capabilities of foreign vendors and contribute to imports as well, but to an extent that is not yet known. In sum, it appears that the total impact of aerospace offsets is greater than the nominal value of the offsets.

Foreign vendors also can use offsets to gain entry into the U.S. market to supplement markets in their home countries. This expands their sales base and helps them compete, potentially displacing American suppliers in both commercial and military markets.

Defense downsizing increased the average age of military aircraft in the U.S. fleet. This 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 markets (indirect offsets).

Conclusions

The defense world changed in the 1990s, reflecting both retrenchment of military expenditures and tougher offset policies and enforcement by governments worldwide. Offsets have risen to a more prominent status in determining competitions and ultimately access to foreign markets. Offset agreements exceeding 100 percent are occurring with increasing frequency and, in one case, exceeded 300 percent. From the U.S. perspective, Europe is clearly the central focus of offset activity, dominating both offset agreements and offset transactions with U.S. companies. Because 90 percent of offset agreements are aerospace-related, concerns about U.S. prime contractors and the aerospace infrastructure have increased.

BIS estimates that during the period, offsets maintained an average of 41,666 jobs per year in defense system exporting industries but cost 9,688 jobs per year in the lower-tier supplier base. Based on these conservative calculations, offset agreements and transactions had a net positive effect on employment.

²⁰ The \$2.95 billion in indirect offsets includes military and civilian applications, although the split is not known. If treated as all civilian, the ratio to total civilian imports is still only about 6 percent. This implies that the majority of civilian imports are manufactured by competitive foreign firms, many of whom may have benefited from offsets in the past.

The U.S. aerospace trade surplus fell from its all time high of \$40 billion in 1998 to about \$27 billion in 2000. Imports of aerospace products have increased rapidly in the last decade for a number of reasons, including offsets. Aerospace-related imports have increased in both up and down market cycles despite the fact that the United States spends more on aerospace research and development than any other nation a factor that should make U.S. products very competitive in world markets.

In this report, Commerce has not identified any specific recommendations for remedial action concerning offsets in defense trade. No other government agency has offered alternative findings and recommendations. However, in the coming year, using authorities granted under the DPA, Commerce is committed to work with U.S. industry, the Department of Defense and other agencies, and foreign governments to analyze the impact of offsets on all parties and to seek ways to mitigate their effect on competition. Our goal is to support the U.S. defense industry and to ensure a robust and vibrant industrial base.