

***Summer 2003***

| Report Documentation Page                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                    |                                     |                                            | Form Approved<br>OMB No. 0704-0188          |                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------|--------------------------------------------|---------------------------------------------|------------------------------------|
| Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. |                                    |                                     |                                            |                                             |                                    |
| 1. REPORT DATE<br><b>2003</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                    | 2. REPORT TYPE<br><b>N/A</b>        |                                            | 3. DATES COVERED<br><b>-</b>                |                                    |
| 4. TITLE AND SUBTITLE<br><b>The Use of Offsets in Foreign Military Sales</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                    |                                     |                                            | 5a. CONTRACT NUMBER                         |                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                    |                                     |                                            | 5b. GRANT NUMBER                            |                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                    |                                     |                                            | 5c. PROGRAM ELEMENT NUMBER                  |                                    |
| 6. AUTHOR(S)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                    |                                     |                                            | 5d. PROJECT NUMBER                          |                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                    |                                     |                                            | 5e. TASK NUMBER                             |                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                    |                                     |                                            | 5f. WORK UNIT NUMBER                        |                                    |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)<br><b>Defense Acquisition University Alumni Association 2550 Huntington Ave,<br/>Suite 202 Alexandria, VA 22303</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                    |                                     |                                            | 8. PERFORMING ORGANIZATION<br>REPORT NUMBER |                                    |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                    |                                     |                                            | 10. SPONSOR/MONITOR'S ACRONYM(S)            |                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                    |                                     |                                            | 11. SPONSOR/MONITOR'S REPORT<br>NUMBER(S)   |                                    |
| 12. DISTRIBUTION/AVAILABILITY STATEMENT<br><b>Approved for public release, distribution unlimited</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                    |                                     |                                            |                                             |                                    |
| 13. SUPPLEMENTARY NOTES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                    |                                     |                                            |                                             |                                    |
| 14. ABSTRACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                    |                                     |                                            |                                             |                                    |
| 15. SUBJECT TERMS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                    |                                     |                                            |                                             |                                    |
| 16. SECURITY CLASSIFICATION OF:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                    |                                     | 17. LIMITATION OF<br>ABSTRACT<br><b>UU</b> | 18. NUMBER<br>OF PAGES<br><b>11</b>         | 19a. NAME OF<br>RESPONSIBLE PERSON |
| a. REPORT<br><b>unclassified</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | b. ABSTRACT<br><b>unclassified</b> | c. THIS PAGE<br><b>unclassified</b> |                                            |                                             |                                    |



Photo taken by Neville Dawson

# THE USE OF OFFSETS IN FOREIGN MILITARY SALES

***Lt Col Robert L. Waller, USAF (Ret)***

United States defense firms have increasingly encountered demands from their foreign buyers to provide compensation for selecting U.S. suppliers. These quid pro quo transactions, also known as *offsets*, compensate the buyers for the economic *damage* caused by purchasing costly U.S. defense equipment. While these offsets may appear to be solely a form of price cutting, the motives of the foreign buyers can be varied. The behavior of these buyers can be explained by economic incentives ranging from labor market distortions and desires for foreign investment to the need for international financing. In most cases, it appears that offset transactions are a form of commercial policy that the buying governments use to address domestic problems. Defense industry personnel will likely encounter offset transactions and will benefit from a better understanding of the buyers' motivations.

In the 1980s, I studied and wrote about the use of offsets in defense sales to foreign governments.<sup>1</sup> (The term *offsets* is used in defense sales to mean the compensation given to foreign buyers, by U.S. sellers, to *offset* the economic impact on the foreign buyers from having purchased U.S. made items, rather than domestically-produced items.) Since the time of that writing, the defense environment has undergone significant changes with the end of the Cold War and the breakup of the Warsaw Pact, mergers within the defense industry, and the changing level and nature of the threat.

With a changed defense environment, there is a need to reexamine the issue of offsets and to validate the economic explanations of why buying nations request, and even demand, offsets when purchasing foreign-made defense items.

To gain an understanding of the current environment surrounding offsets in the defense industry, officials in the industry were contacted and, when willing, questioned about their experiences.<sup>2</sup> Because of the proprietary nature of the information, and the fact that competitions involving offsets are currently ongoing, few specifics can be identified in

## DISCLAIMER

The views expressed in this article are those of the author and do not reflect the official policy or position of the U.S. Air Force, the Department of Defense, or the U.S. government.

this article; however, the general motivations behind the use of offsets are presented.

Offset agreements appear to be common in large defense sales of aircraft, radars, and other electronic systems, to foreign governments. In fact, it appears that offset agreements are the norm in such transactions. In a typical offset arrangement,

**"It appears that the current competitive environment in the worldwide defense industry dictates that a selling firm must anticipate offering offsets to the buyer to have any reasonable chance of winning a sale."**

the buying country (who most likely has a formal offsets policy or even a law governing offsets)<sup>3</sup> requires the selling firm to provide economic offsets or compensation for having purchased the particular foreign-made system or items. The offsets may include purchases by the selling firm from the buying nation, as well as marketing assistance for, investments in, or

technology transfers to the buying nation. The seller may also agree to produce a portion of the product in the buyer's country. The value of the offsets expected by the buying nations frequently equals the value of the original defense purchases, and the time required to fulfill the offset commitments may easily exceed the delivery time for the purchased defense equipment.<sup>4</sup>

It appears that the current competitive environment in the worldwide defense industry dictates that a selling firm must anticipate offering offsets to the buyer to have any reasonable chance of winning a sale. With the frequent use of offsets, it is logical to ask, what

motivates a buying nation to request or require offsets? Why would a buyer choose this type of transaction, a purchase contract accompanied by an offset agreement, when a simpler, more straightforward cash deal is available and might result in a cheaper price for the defense item? An initial response might be that the buying nation has some monopsony power and the nation uses that power in a competitive environment to win an effective price reduction. While this may be true in some cases, it is also reasonable to assume that in many cases the selling firms have to cover the costs of fulfilling their offset commitments and thus must increase the prices of the defense items accompanying these commitments.<sup>5</sup>

If the latter is true, and firms do increase the prices of the defense items in order to cover the offsets' costs, then the purchase and combined offsets package can be equated to a form of subsidization. The buyer pays more than a straight cash price, and in return receives certain benefits (discussed below). The alternative for the buyer would be to pay a lower price for the required defense items and then provide the subsidization for the desired benefits directly out of public funds. However, the direct subsidization may not be possible due to political constraints. Thus, offsets may be considered a form of indirect subsidization, and possibly a second-best, or blunt form of government intervention or commercial policy.

---

## THE MOTIVES

Discussion of some of the motives that buying countries may have when they require offsets from foreign suppliers of

defense equipment follows. These motives go beyond that of obtaining an effective price cut, and, in several cases, appear to be efforts to subsidize certain activities.

### **CORRECTIONS IN THE LABOR MARKET**

A buying country may face a situation where an excessively large pool of unemployed labor exists in the country, or a significant percentage of its workforce is in low-skilled industries. Either case may justify some form of government action. Stimulative macroeconomic policy, elimination of the minimum wage, or a reduction in barriers that hinder the mobility of labor (from, say, union power or government regulations), might address the first situation. A subsidy program targeting certain industries could be used to increase employment in high-skilled areas, thus addressing the second case. However, political constraints may prevent the use of some of these actions. Thus, a government might seek other ways to address the labor market problem, and an offset agreement might be part of the solution.

Through an offset arrangement, the buying government can increase its exports and thus stimulate employment. In particular, the government can require the selling firm to agree to buy products produced in the buying country, or to establish certain co-production and subcontracting relationships with local firms. The buying government can, therefore, ensure that certain components or tasks associated with desired high-tech skills be produced in its local economy, thus not only increasing employment in general but increasing the skill level of a portion of the workforce.

The use of offsets could be viewed, in an economic setting, as a form of government intervention in response to a distortion in the local labor market. In the hypothetical cases described above, perhaps the minimum wage, excessive union power, or government-imposed barriers are causing unemployment in the local economy. However, due to political constraints these factors may be well entrenched in the nation, and perhaps the offsets package is a second-best method of addressing the distortion in the labor market; the first best being removal of the distortion itself. Additionally, in the case where there is a lack of high-skilled employment opportunities, the government's use of offsets could be in lieu of, say, a politically-charged direct subsidy to selected high-technology firms to encourage employment in those industries.

Anecdotal evidence supports this theory of the use of offsets. Industry officials report that it is common for countries to include in their offset requirements a list of general categories of technologies that are desired, and to discuss specific technologies during negotiations. To encourage employment in certain targeted industries or in depressed regions, the buying nations may award selling firms additional offset credit for purchases made from those industries or from firms within the designated regions.

### **ENHANCE CAPITAL INVESTMENT**

National leaders often desire to see an increase in investment activity in their countries. This activity would bring an

**"National leaders often desire to see an increase in investment activity in their countries."**

increase in employment, particularly in targeted advanced skills, and, in the case of developing countries, an increase in national pride from the expanded capital stock. The usual macroeconomic tools available to policymakers to encourage an increase in investment are those associated with monetary policy, such as an easing of interest rates or credit conditions, or some type of stimulative fiscal policy, such as an investment tax credit. In addition, policymakers might use direct subsidies to specific industries to promote investment activity. However, once again, these tools may not be suitable or available.

**"Oftentimes governments give selected industries a favored status."**

The use of stimulative monetary and fiscal policies might be restricted because of domestic inflation concerns or worries about the budget deficit. Using direct subsidies, given only to targeted

industries, would likely cause political problems; industries not subsidized would feel *left out*, and labor might feel that handouts to industry were too generous. Therefore, national leaders could use offset agreements to provide stimulus to investment activity while avoiding political friction.

In the offset negotiations, the buying government can request that the selling firm build a production facility in the buying country or use its influence to encourage other domestic firms, such as subcontractors, to do so. In this way, the buying government sees an increase in capital investment, without the political problems associated with a direct subsidy scheme. Since the selling firm must recoup the

cost of the possible sub-optimal investment decisions by increasing the price of the defense equipment, the offsets arrangement may be viewed as an indirect subsidy scheme. The buyer pays a higher price for the defense item, but receives the desired investment activity.

Industry officials report that in addition to the desired capital investment, buying governments, recognizing their limited domestic demand to absorb the new output, often expect assistance with marketing the output from these new facilities in third countries. Thus, an offsets agreement may not only call for capital investment in the buying nation, but also marketing assistance for the output; thus making the facility a viable project from the very beginning. An interesting twist to this arrangement is when the selling firm builds a facility in the buying country and then is able to use this facility to create a new marketing channel for itself, perhaps providing parts and components to service the facility.<sup>6</sup>

### **PROMOTE STRATEGIC INDUSTRIES**

Oftentimes governments give selected industries a favored status. This special status may be due to political reasons, specifically a desire for military self-sufficiency. To support these targeted industries, government policymakers may call for subsidy payments to the firms to ensure their viability. However, these direct and overt subsidies can cause political problems. Industries not selected for support may complain about the discriminatory subsidies. Labor groups not associated with the targeted firms may also complain. Critics of government intervention will likely find fault with the use of

public funds to assist selected private industry or to support inefficient public firms. To avoid these political battles and still obtain the desired subsidization, government leaders may turn to offsets.

Similar to the scenario above, when policymakers want to increase employment in certain high-technology industries, offset agreements can be structured to channel business toward the targeted firms, including the award of extra offset credit for purchases made from these selected firms. Again, this use of offsets mimics a subsidization scheme. If it is assumed that the offset-granting firm raises the price of its defense items to cover the cost of providing the offsets, then the buying government is providing an indirect, and less visible, form of subsidization to the targeted industries.

#### **CORRECT FOR ASYMMETRIC INFORMATION**

A government's use of offsets can also be viewed as a reaction to the existence of asymmetric information. First, many of the major defense firms have well developed worldwide marketing networks and expertise, while the nations buying their products lack the extensive marketing skills needed to promote their own countries' exports. Second, most of the buying nations of defense items have a need to increase their technological bases, while the firms selling them defense items are leaders in a variety of technologies. Both of these cases represent situations of asymmetric information; the sellers possess information that the buying nations desire, that is, marketing expertise and state-of-the-art technologies.

In both the situations described here, offset agreements can be used to correct the information gaps. A buyer of defense

items can request that the selling firm assist in marketing the buying nation's products to new customers, using the firm's extensive marketing network, including the contacts of its subcontractors. The buyer may also award offset credit for the value of technological information that is transferred, possibly through training programs, to the buying country. In this manner, the buying nation has taken corrective action to address the existence of asymmetric information, improving its marketing expertise and its technological base; and, in the case of the marketing assistance, the nation has reduced some of the transaction costs associated with its exports.

#### **REDUCE RISK AND UNCERTAINTY**

Economic theory usually assumes that agents, for a given return or level of output, prefer to reduce risk whenever possible. This assumption applies to government policymakers also. As an example, decision makers in a country may wish to reduce the

risk and uncertainty associated with a large capital investment, say, some type of production facility. Specifically, they may be concerned that sufficient demand for the output of the new facility is lacking, and thus the large project will fail, embarrassing the country, putting government funds at risk, and increasing unemployment.

In a situation such as this, these government policymakers could use offsets to reduce the risk and uncertainty

***"Economic theory usually assumes that agents, for a given return or level of output, prefer to reduce risk whenever possible."***

associated with the highly visible project. By identifying the products from the facility in the targeted list of items for the defense firm to help market, the government officials could increase the likelihood of success for the project in return for offset credit. As in the earlier offsets incentives discussed above, this use of offsets could be seen as another form of subsidization. Here, the buying government may pay a higher price for the defense items, but in return gets assistance in marketing the products from a politically sensitive project, thus reducing the associated risk.

**“Policymakers in the buying country may see the use of offsets to win the needed political support as a form of commercial policy.”**

#### **PROVIDE ALTERNATIVE FINANCING**

Political leaders in a nation may see the need for foreign-made defense items for their country, but may feel constrained due to an imbalance

in their country's Balance of Payments. Specifically, the nation may already have a severe deficit in its trade balance, and the purchase of the foreign-made defense equipment would only aggravate the deficit. Therefore, there might be an economic, as well as a political, barrier to the purchase. Once again, offsets may provide a solution for the policymakers' dilemma.

By requiring, in the accompanying offset agreement, the selling firm to purchase an equal monetary value of domestic goods and services, the buying nation can avoid worsening its trade imbalance, and, in a fixed exchange rate

regime, protect the nation's foreign exchange reserves. Here, the use of offsets seems to approximate a sophisticated form of barter. The goods and services are exchanged with no net effect on the currency balances of the two countries.

There is an interesting extension to this line of reasoning for the use of offsets when we introduce the connection to barter. Occasionally there have been media reports of the use of sophisticated barter arrangements to conceal the prices of exports. This is most applicable when the nation is a member of a cartel-like organization such as Organization of Petroleum Exporting Countries (OPEC), or possibly the International Coffee Agreement. The scenario has the buying nation knowingly purchasing the foreign-made items at inflated prices, and in return, selling the oil, coffee, or whatever, at the official, cartel approved price. In this manner, the country's leaders have effectively cut the price of the commodities without openly breaking with the other members of the cartel.<sup>7</sup>

#### **GAIN POLITICAL SUPPORT**

In an effort to win domestic support for a large defense-related purchase from a foreign firm, the buying government may tout the many benefits the nation will enjoy from the offsets received. By publicizing the increase in exports and associated employment gains, as well as any new capital investments, co-production arrangements and technology transfers, political leaders in the purchasing nation will hopefully dampen domestic criticism of the purchase.

Policymakers in the buying country may see the use of offsets to win the needed political support as a form of

commercial policy. Here they are intervening to correct for an externality; the defense items have a social value greater than the perceived market value.

## **CONCLUSION**

---

Transactions involving large defense purchases from U.S. firms by foreign governments most often involve offset agreements between the selling firms and the buying governments. Policymakers in the buying nations can use the offset agreements to address a variety of economic and political issues within the buying countries. The desired effects identified were: labor market corrections, promotion of capital investment, support for strategic industries, adjustments for asymmetric information, reduction of risk and uncertainty, alternative sources of financing, and political

support for defense purchases. In some of these situations, the use of offsets appears to be an alternative form of commercial policy, replacing a more direct form of intervention.

Recently provided information from industry appears to validate the work done in the 1980s. The changes in the defense environment over the past two decades do not seem to have changed the motives behind the use of offsets. However, according to comments from industry officials, the frequency of the use of offsets, as well as the size of the offset requirements (as a percentage of the transaction value) both appear to have risen. Offsets are a reality of the existing competitive nature of the marketplace. Understanding the economic incentives leading to their use is helpful not only to U.S. policymakers but also to industry officials.



**Professor Robert L. Waller, Lt Col, USAF (Ret)** is an associate professor of economics at the U.S. Air Force Academy. Waller earned his A.M. degree at the University of Michigan and his Ph.D. in economics at Boston University. His research has dealt with countertrade and information superiority.

(E-mail address: [robert.waller@usafa.af.mil](mailto:robert.waller@usafa.af.mil))

## **ACKNOWLEDGMENT**

The author wishes to thank Lt Col Stephen Slate, USAF, and Dr. Bruce Linster for their support and valuable suggestions.

---

ENDNOTES

---

1. See, for example, "Why Offsets?" *Program Manager*, November–December 1989.
2. The majority of my updated information came from an industry official who has worked offset programs in over ten countries over the past decade.
3. An example of such a policy is Australia's requirement for foreign information technology-related companies wishing to supply information and communication technology goods and services to the Government of Australia to export Australian goods and services, to transfer technology, and to engage in research and development in Australia. See, for example, *2001 Country Reports on Economic Policy and Trade Practices*, published by the Bureau of Economic and Business Affairs, U.S. Department of State, February 2002.
4. While foreign governments often have laws or policy statements outlining their offset expectations, the U.S. Government's policy, as stated in Federal Acquisition Regulation (FAR) 225.7303, is that the Department of Defense does not get involved with a defense firm's offset commitments. The decision to engage in offsets, and the responsibility for fulfilling offset commitments, is purely the firm's.
5. The pricing guidelines for Foreign Military Sales contracts in FAR 225.7303-2 support this assumption.
6. A hypothetical example of this might be where a U.S. defense firm, as part of its offset commitment to a buyer, builds a plant in a buyer's country to manufacture some parts for final assembly back in the U.S. or in some third country. The newly built plant, however, requires very specialized components, machinery, and technological assistance, all of which must be provided by the defense firm's primary facilities back in the United States.
7. For examples of OPEC's use of barter-type transactions during the mid-1980s see: Youssef M. Ibrahim, "Crumbling Cartel OPEC's Old Iron Grip on World Oil Prices becomes Ever Weaker," *The Wall Street Journal*, January 11, 1985, pp. 1, 9; and, "Oil-for-Planes Accord Is Likely for UAE, France," *The Wall Street Journal*, October 1, 1984, p. 37.

