INTRODUCTION

In Chapter Two, we saw that the U.S. aerospace industry as a whole is quite active in international trade and investment markets, although it is heavily export-oriented. However, the U.S. military aerospace sector is less internationally integrated than the nonmilitary sector, with less than 0.1 percent of U.S. purchases of complete military aircraft originating overseas. Is this due to U.S. superiority in military aerospace technology, design integration, and manufacturing? Or could it be that U.S. government, DoD, or Air Force policies and practices are slowing military aerospace globalization—and thereby preventing full realization of the benefits of global economic integration? Do policies affecting defense globalization reflect higher priorities related to U.S. national security interests, or are they the result of outdated bureaucratic procedures or unnecessary protectionist legislation? In either case, to what extent is the Air Force constrained by these policies?

Using the three objectives identified in Chapter Three as an organizing framework, we briefly describe the policy instruments that either encourage or impede globalization of the defense industrial base. We pay particular attention to areas in which objectives—and therefore policies—can be at cross purposes. We conclude by reviewing trends in U.S. legal and policy activity, summarizing leadership perspectives within DoD and the Air Force as well as other U.S.
departments and agencies in order to provide an indication of the direction of future reforms.

EQUIPPING AIR FORCE WARFIGHTERS WITH SUPERIOR, AFFORDABLE WEAPON SYSTEMS

As its Vision 2020 clearly states, if the Air Force is to remain the foremost aerospace force in the world, its warfighters must have superior training and equipment (U.S. Air Force, 2000). This in turn will be possible only if it is supplied by an extraordinarily capable and responsive industrial base. Yet with the array of potential aerospace threats expanding to include space warfare, information operations, ballistic and cruise missiles launched by rogue nations, and the like, U.S. and allied defense modernization funds are being stretched thin (AIAA, 2001). Therefore, a key Air Force objective is to obtain the “best value” for the warfighter. Put another way, the Air Force seeks to achieve superior warfighting capabilities at affordable prices.

One important step toward achieving this objective is to promote both innovation and efficiency within the defense industrial base. A review of DoD and Air Force policy and guidance suggests that competition is seen as central to achieving both goals (DoDD 5000.1, paragraph 4.3.3; AFPD 63-3). This position is consistent with the United States’ long history of antitrust legislation beginning with the Sherman Antitrust Act of 1890, which provides authority for the government to block mergers, acquisitions, and other actions that tend to limit competition or create monopolies. Thus, the Air Force’s and DoD’s primary approach toward ensuring a healthy defense industrial base is to foster competition, monitor the results, and intervene only when a desired military capability appears likely to be downgraded or lost (DoD 5000.2-R, paragraph C2.9.1.1.2.1; DoDD 5000.60).

As evidenced by the data presented in the preceding chapter, products and technologies provided by foreign defense firms have not been an essential part of the Air Force’s competition-based strategy for encouraging innovation and efficiency. This may be changing, however, in part because of the improved technical capabilities of foreign—particularly European—firms, and in part, perhaps more
importantly, because of the recent rapid consolidation of the U.S. defense sector. Both factors have impelled DoD and the Air Force to try to expand the U.S. defense industrial base, first through greater participation by U.S. commercial sector firms, and second through greater participation by foreign defense and commercial sector firms, including foreign-owned companies located in the United States.

**Promoting Competition Within the U.S. Domestic Industrial Base**

U.S. federal law both directly and indirectly requires DoD and the Air Force to ensure a healthy defense industrial base by promoting competition. Many of these statutory requirements are captured in the FAR, the Defense FAR Supplement (DFARS), and the Air Force FAR Supplement (AFFARS) as well as in lower-level DoD and Air Force guidance. For example, U.S. Code (USC) Title 10, Section 2440, directs the Secretary of Defense to “prescribe regulations requiring consideration of the national technology and industrial base in the development and implementation of acquisition plans for each Major Defense Acquisition Program (MDAP).”\(^1\) As implemented, the weapon system program manager, along with his or her staff and Milestone Decision Authority (MDA), is to consider the effects of programmatic decisions on the future health and capability of the industrial base, in addition to industry’s more immediate ability to support their program. In practice, one of the effects of this statute and its implementing regulations is to make preserving competition a key criterion in the selection of contractors for weapon system acquisition programs.

The USD(AT&L) has reinforced the statutory requirement to enhance and protect the defense industrial base with several Directive Memoranda that establish DoD policy in this area. In 1997, then–Under Secretary of Defense for Acquisition and Technology

\(^1\)In 10 USC Section 2430, an MDAP is defined to be a program “estimated by the Secretary of Defense to require an eventual total expenditure for RDT&E of more than $300,000,000 or an eventual total expenditure for procurement of more than $1,800,000,000, based on fiscal year 1990 constant dollars.” Although most DoD acquisition programs are too small to be MDAPs, their managers still pay attention to the possible consequences of programmatic decisions for the industry base.
Paul Kaminski introduced five initiatives to ensure that DoD has the knowledge and capability to monitor and deal with potentially reduced subtier competition (USD[A&T], 1997). Two years later, USD(AT&L) Jacques Gansler issued a Directive Memorandum establishing policy and illustrating a variety of remedies to deal with anticompetitive teaming, while his Principal Deputy Under Secretary, David Oliver, issued a similar Directive Memorandum designed to ensure robust subcontractor competition (USD[A&T], 1999; Principal Deputy Under Secretary of Defense for Acquisition and Technology, 1999). In a July 2000 directive memorandum on future competition, USD(AT&L) directed Component Acquisition Executive Deputies to meet with the Deputy Under Secretary of Industrial Affairs (DUSD[IA]) to discuss areas where competition may be limited in the future (USD(AT&L), 2000).

Each of the policies established by these memoranda has been captured in the new 5000 series (DoD 5000.2-R, paragraph C2.9). However, both the regulation and the original policy letters provide general rather than quantitative guidance on how to define a healthy industrial base—or a sufficient level of competition. Since the character of competition as well as the means to foster it will vary over time, between sectors, and between prime and subcontractor tiers, acquisition decisionmakers are instead directed to consider the impact of their decisions on the current and future industry base. They are also instructed to observe the industry sectors that they know best to look for signs of problems. Direct intervention to ensure a competitive environment is expected to be the exception rather than the rule (DoD 5000.1, paragraph 4.3.3; DoD 5000.2-R, paragraph C2.9.1.1.2).

A more straightforward requirement to promote competition per se is found in 41 USC 418. This statute directs all federal agencies to establish Advocates of Competition responsible for “promoting full and open competition, promoting the acquisition of commercial items, and challenging barriers to such acquisition.” The Air Force has re-
sponded to this requirement by issuing AFPD 63-3, which establishes the Deputy Assistant Secretary of the Air Force for Contracting (SAF/AQC) as the Air Force Competition Advocate General. Furthermore, AFPD 63-3 directs the “Air Force procuring activities” listed in AFFARS Subpart 5306.5 to assign Competition Advocates for their organizations. SAF/AQC, in his or her role as Air Force Competition Advocate General, is directed to encourage effective competition and the use of commercial items and practices as well as to manage the Air Force’s competition program. All Air Force Competition Advocates are to promote competition in contracting and the use of commercial practices; monitor and track the number of acquisitions that are competitively awarded; identify barriers to competition and effective remedies; and track those barriers and remedies. Each of these actions is to be accomplished in coordination with relevant technical or program management staffs. Once again, however, no formal, objective definition of “effective competition” is provided.

Finally, civil-military integration has become a cornerstone of U.S. government, DoD, and Air Force competition policy (10 USC 2377; FAR Part 12; DFARS Part 212; AFPD 63-3). Through the adoption of commercial business practices and minimization of military-unique specifications and data requirements, DoD and the Air Force hope to make it easier and more attractive for commercial businesses to compete for DoD business. In principle, civil-military integration should also permit foreign contractors to compete more easily. Desired benefits include avoiding—or at least sharing—the development costs for items having both commercial and military applications (dual-use items); eliminating certain administrative, contracting, and data-tracking costs; having access to manufacturing sources for components after the completion of weapon system production runs; and exploiting economies of scale. In particular, if the military can purchase existing systems or components as commercial off-the-shelf (COTS) items or as NDI, DoD may be able to avoid

4Civil-military integration is also seen as a way for traditional defense firms to broaden their market base by competing in commercial markets and thus lower costs.
the considerable schedule and cost risks normally associated with development programs.\(^5\)

**Competition Policy and the Role of Foreign Industry**

Although the statutes, regulations, and policies described above focus on enhancing U.S. domestic competition rather than on defense industrial base globalization, they should in principle be heartening to foreign suppliers who want to compete for DoD contracts. Explicit support for increased participation by foreign industry can be found in the opening paragraphs of DoDD 5000.1, "The Defense Acquisition System," which states that DoD "must take all necessary actions to promote a competitive environment, including . . . ensuring qualified international sources are permitted to compete" (DoDD 5000.1, paragraph 4.3.3). More specifically, AFPD 63-9 lists several benefits of ICRD&A programs that parallel the benefits of civil-military integration. These include accessing a broader range of technologies, leveraging international investments, and enjoying economies of scale. AFPD 63-9 also states that ICRD&A fosters a more efficient market for trade in defense technology, goods, and services.

DoDD 5000.60, "Defense Industrial Capabilities Assessments," is also directly relevant to foreign suppliers. DoDD 5000.60 requires the Defense Components to conduct analyses when acquisition and inventory managers or buyers identify a risk to industrial base capabilities and to take necessary remedial measures. Responsible offices are tasked to identify the most cost- and time-effective options for preserving critical military capabilities. One of many options to be considered is to secure a foreign source of supply.

DoDD 5000.62, "Impact of Mergers or Acquisitions of Major DoD Suppliers on DoD Programs," provides a somewhat different perspective on the potential role of foreign contractors in the U.S. defense industry. This directive establishes policies and assigns re-

\(^5\)NDI are products that require modest modifications to meet military requirements. Numerous DoD and Air Force publications extol the virtues and direct the use of civil-military integration, military standard and specification reform, COTS, and NDI. See, for example, Secretary of the Air Force for Acquisition (SAF/AQ) (1999) and the new 5000 series.
sponsibilities for assessing the potential impact of all proposed
M&As involving a major defense supplier on DoD programs, includ-
ing M&As involving foreign companies. USD(AT&L), DUSD(IA), and
the DoD General Counsel are jointly responsible for identifying the
impact on national security and on defense industry capabilities as
well as for advising the Secretary of Defense regarding potential
competition, cost, and other implications for DoD programs. For
each case, they receive input from designated offices within the af-
fecting component(s).

The Air Force activity tasked with executing DoDD 5000.62 is the
Industrial Base Planning (IBP) Program within the Materials and
Manufacturing Directorate of the Air Force Research Laboratory at
Wright-Patterson Air Force Base. According to the IBP Program
Manager, international cases are usually limited to those that involve
foreign direct investment in the United States or mergers of foreign
companies that have U.S. subsidiaries. He summarizes the focus of
the IBP Program’s M&A studies in three questions related to the
potential suppression of competition through vertical and horizontal
integration:

- Do the two companies currently compete or are they likely to
  compete in the future?
- Does one company supply key components to a competitor of
  the other?
- Does an integrator-supplier relationship exist among the two
  firms?

The Air Force Secretariat provides the answers to these questions
along with analysis of their implications for the Air Force and corre-
sponding recommendations to DUSD(IA). The Department of
Justice and the Federal Trade Commission use DUSD(IA)’s synthe-
sized results as one input in their analysis of the antitrust implica-

---

6In 2001, DUSD (IA) became the Deputy Under Secretary of Defense for Industrial
Policy (DUSD/IP).
7Interview with Alan Taylor, IBP Program Manager, Air Force Research Laboratory,
8Specifically, the Systems Engineering Division (SAF/AQRE) tasks the IBRP and staffs
the Air Force’s responses to DUSD(IA).
tions of the proposed merger or acquisition. If one of the proposed partners is a foreign firm, the results may also support investigations by CFIUS, which is headed by the Department of the Treasury. The CFIUS investigation process is discussed at greater length below.

Finally, Congress and others have already taken some steps to mitigate the effects of major barriers to foreign competition in the defense market by providing exemptions to key “buy national” statutes. The Buy American Act (41 USC 10a–10d; FAR Part 25.2; DFARS Part 225.2) and the Balance of Payments Program (FAR Part 25.3; DFARS Part 252.3) each place restrictions on U.S. government purchases of supplies that are not domestic end products. The former restricts purchases of foreign end products to be used in the United States, and the latter places somewhat different restrictions and evaluation procedures on the purchases of foreign end products to be used outside the United States. However, treaties, international agreements, and “Determinations of National Interest” have resulted in numerous limitations and exemptions to these laws. Such exclusions are often related to trade with specific nations and bear direct relevance to the Air Force’s acquisition of foreign military equipment.

Under the authority of the Culver-Nunn Amendment (10 USC 2457), for example, the Secretary of Defense has decided that it is not in the U.S. public interest to apply the Buy American Act or the provisions of the Balance of Payments Program to U.S. acquisition of defense equipment from the following nations: Australia, Belgium, Canada, Denmark, Egypt, Federal Republic of Germany, France, Greece, Israel, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Turkey, and the UK (DFARS Part 225, paragraph 225.872). DoD has thus entered into bilateral “Reciprocal Procurement” Memoranda of Understanding (MoUs) with these nations to preclude the application of any “buy national” requirements. On a purchase-by-

---

9Domestic end products are either raw materials and commodities mined or produced in the United States or end products that are manufactured in the United States, where “manufactured in the United States” applies to all items for which the cost of components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components (DFARS Part 225, paragraph 225.003).

10These laws generally do not prohibit foreign acquisition but rather provide source selection evaluation procedures that favor domestic products.
purchase basis, the same exclusions can be made for Austria, Finland, Sweden, and Switzerland.

Furthermore, in accordance with 10 USC 2533 and DFARS Part 225, paragraph 225.103, the Secretary of Defense, after careful consideration of several factors, can determine that it is inconsistent with the public interest to apply the Buy American Act to purchases of defense products from manufacturers in other countries. Procurements from nations that are not listed above, such as the Pacific Rim nations, could therefore be exempted as well. DFARS Part 225, paragraph 225.103, also explains that USD(AT&L) has determined that a public interest exemption is appropriate for information technology components that are substantially transformed in the United States.11 This would include, for example, electronic hardware and software components that are manufactured in the Pacific Rim and integrated into computers and other hardware in the United States.

Most of the nations that could sell world-class weapon systems and components to the U.S. Air Force are already excluded or can be excluded from the provisions of U.S. “buy national” laws. In addition, U.S. prime contractors are not allowed to use these laws as a justification to preclude qualifying country sources from competing for subcontracts (DFARS Part 225, paragraph 225.872-8). Therefore, while the Buy American Act and the Balance of Payments Program may act as barriers to international trade in other industries, their impact on U.S. purchases of aerospace weapon systems and components from abroad should in theory be greatly mitigated.12 Nevertheless, the United States’ friends and allies—especially its European allies—apparently continue to consider them a barrier (U.S. General Accounting Office, 1998). This suggests that attitudes rather than statutory or regulatory obligations may be a key

11Specifically, this includes items covered by Federal Supply Groups 70 (Automatic Data Processing Equipment [including Firmware], Software, Supplies, and Support Equipment) or 74 (Office Machines, Text Processing Systems, and Visible Recording Equipment).

12However, DFARS Subparts 225.70 and 225.71 describe other, more narrowly focused statutes and DoD policies that do restrict the purchase of foreign military equipment. For example, 10 USC 2534 restricts U.S. purchases of certain ball bearings and roller bearings from nations other than Canada and the UK.
cause of low levels of U.S. imports of defense goods. This is a subject worthy of further research.

To conclude, the “buy national” provisions of U.S. law that were originally designed to limit U.S. government purchases from foreign suppliers probably do little now to limit those purchases in the area of defense. On the other hand, DoD and Air Force policies designed to promote an efficient and innovative defense industrial base have the potential to elicit increased foreign contractor participation in U.S. defense markets. In particular, policies designed to make it easier for U.S.-owned and U.S.-based commercial firms to participate in DoD and Air Force procurement programs should in principle benefit foreign commercial and defense sector firms as well.

PREPARING FOR COALITION WARFARE

A second major objective motivating Air Force concerns about globalization of the defense industrial base is the expectation that the United States will fight future wars as a member of coalitions. Both DoD and the Air Force believe that U.S. warfighting capability can be multiplied—and international support engendered—through the judicious employment of coalition operations with NATO allies or other friendly nations (Cohen, 1997; AFPD 63-9; AFI 16-110). Coalition operations are most effective if their equipment is common or at least interoperable and if training and tactics are also standardized or harmonized. Thus, defense cooperation—that is, assisting and cooperating with our allies and friends in the development, procurement, and support of weapon systems—is the cornerstone of the U.S. approach to interoperable coalition forces.13

There are two major categories of defense cooperation. The first, International Armaments Cooperation (IAC), consists of government-to-government cooperative armament development and acquisition programs. The second, Security Assistance, is defined as “the transfer of military and economic assistance through sale, grant, lease, or loan to friendly foreign governments” (DoD 5105.38-M, paragraph 10103). Note that all defense cooperation programs require some form of U.S. government involvement, including com-

13See, for example, Cohen (1997).
commercial sales of military equipment by U.S. private sector firms to foreign governments, which fall under the category of Security Assistance and require State Department approval of export licenses. The laws, regulations, and other forms of guidance regarding the various forms of defense cooperation are extensive owing to the variety and complexity of these international programs and to the direct and extensive involvement of the U.S. government.

The Deputy Under Secretary of the Air Force for International Affairs (SAF/IA) is the focal point in the Air Force for defense cooperation. However, other offices, including SAF/AQ, also have major responsibilities in this area. Specifically, Air Force Manual 16-101, paragraph 1.6, states that SAF/IA “develops, implements, manages, and supervises the U.S. Air Force’s international affairs, international technology transfer control, and security assistance programs” and liaisons with OSD, the Departments of State and Commerce, and others (U.S. Air Force, 1995). This manual adds that SAF/AQ “is responsible for acquisition policy, program management, and execution of all major, complex Foreign Military Sales system acquisition cases administered by SAF/IA.” Similarly, regarding IAC, AFI 16-110, paragraph 1.4, states that SAF/IA is responsible for Air Force IAC policies and procedures and manages Air Force IAC, while AFPD 63-9, paragraph 1.4, states that SAF/AQ is responsible for policy, resource advocacy, and oversight of Air Force participation in ICRD&A programs. At the DoD level, the Defense Security Cooperation Agency (DSCA) manages military Security Assistance programs, and the Deputy Under Secretary of Defense for International Cooperation (DUSD[IC]) oversees IAC.

**International Armaments Cooperation**

IAC generally includes all aspects of defense acquisition programs that are jointly conducted with one or more foreign nations or organizations. Facets of IAC include requirements harmonization, RDT&E, production, acquisition, and weapon system support. IAC programs are formalized through written international agreements between the United States and other governments or international organizations, but in practice they may be either government- or industry-initiated (Deputy Under Secretary of Defense for International and Commercial Programs, 1996, Chapter 5).
Within DoD literature, the categorization of IAC programs varies. The six composite categories briefly described below are bilateral forums; the Defense Data Exchange Program; the Engineer and Scientist Exchange Program; the Foreign Acquisition and Foreign Comparative Testing programs; International Cooperative Research, the Development, Test, and Evaluation (ICRD&T&E) and International Cooperative Production programs; and the International Cooperative Support programs. Of these, the ICRDT&E, International Cooperative Production, Foreign Acquisition, and Foreign Comparative Testing programs contribute directly to the globalization of the defense industrial base, while the other programs foster technical interaction and professional relationships that can also stimulate defense industry globalization.

- **Bilateral forums.** The United States is involved in a large number of formal bilateral and multilateral forums for discussing the breadth of IAC issues with our allies and friends. Most multilateral forums involve U.S. and European nations or English-speaking nations, while most bilateral arrangements involve Pacific Rim nations or Israel. AFI 16-110, Chapter 6, and DISAM (2000, Chapter 19) describe Air Force participation in these bodies.

- **Defense Data Exchange program.** This bilateral arrangement facilitates the mutually beneficial exchange of RDT&E data between the U.S. military and allied or friendly nations’ defense components for the purpose of research and development.

- **Engineer and Scientist Exchange program.** This program consists of bilateral exchanges of U.S. and foreign defense agency engineers and scientists to fill technical positions in each other’s R&D facilities. The program provides opportunities for these professionals to learn about each other’s technologies, practices, management, and perspectives.

- **Foreign Acquisition and Foreign Comparative Testing programs.** According to AFPD 63-9, the Air Force can save time and development costs, take advantage of foreign technical expertise, and enhance standardization and interoperability by buying foreign-developed defense weapons and components. Foreign Comparative Testing programs facilitate the evaluation of for-
eign defense articles to meet U.S. defense requirements and can lead to foreign acquisitions.

- **ICRDT&E and International Cooperative Production programs.** These efforts are jointly managed and jointly financed RDT&E programs that work toward meeting common requirements. Ideally, cooperative R&D programs will transition through test and evaluation into cooperative production programs.

- **International Cooperative Support programs.** Cooperative support can include supplies, maintenance, and other aspects of logistics and sustainment for fielded systems. It can be a planned and integrated element of an international cooperative development and production program, or it can stand alone.

DoDI 5000.2, paragraph 4.7.1.3.2, shows a strong preference to engage in IAC programs when new weapon systems are procured. It directs acquisition decisionmakers to adhere to the following hierarchy of alternatives in identifying the course of action to acquire equipment:14

1. The procurement (including modification) of commercially available *domestic or international* technologies, systems, or equipment, or the additional production (including modification) of previously developed U.S. military systems or equipment *or allied* systems or equipment.

2. Cooperative development programs with one or more allied nations.

3. New joint component or government agency development programs.

4. New component-unique development programs.

Thus, to avert delays, risk, and cost, the first preference is to buy existing U.S. or allied COTS items, NDI, or inventory equipment.15 If

---

14Emphasis added.

15Not all Air Force acquisitions involving international industry participation take place in the context of formal IAC Foreign Acquisition programs. For example, the Air Force can purchase weapon systems that contain components obtained from international sources from U.S. industry.
this is not possible and new equipment must be developed, an ICRDT&E program followed by an International Cooperative Production program is preferred over a U.S.-only development.

The Nunn Amendment to the FY 1986 National Defense Authorization Act allows the Secretary of Defense to enter into international cooperative research and development (ICR&D) with NATO and other “major allies” so long as the projects improve the conventional defense capabilities of NATO or the cooperative defense capabilities of the United States and its major non-NATO allies (10 USC 2350a; DISAM, 2000, Chapter 19). It also requires that DoD develop a “Cooperative Opportunities Document” for use by the Defense Acquisition Board for each MDAP. The Cooperative Opportunities Document delineates the opportunities for international cooperation and allows DoD acquisition decisionmakers to consider the opportunities for international cooperation early in the program, before major resources have been committed.

DoD 5000.2-R, paragraph 7.11, directs the MDA, in consultation with the Joint Requirements Oversight Council and legal counsel, to make a decision regarding the establishment of an international cooperative program as early as possible in the acquisition process, and it further directs that international cooperation continue to be considered at each milestone. Once a DoD component has decided to fully fund an international cooperative program, they are exhorted to remain faithful to that commitment and are directed not to reduce that funding by more than 25 percent without approval from USD(AT&L) or the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence (ASD(C3I)) as appropriate. USD(AT&L) or ASD(C3I) may choose to insist that the component continue to provide some or all funding for the program.

An important question requiring further research is the extent to which formal government-initiated IAC programs encourage international teaming or other international business relationships that would not otherwise occur. This question is important in part because the extent to which government-initiated IAC programs foster the efficient use of U.S. national resources is debatable. Historically, for example, governments that have initiated ICRDT&E programs have often not only provided funds but also actively coordinated and directed the involvement of their own industry. Usually they de-
mand that the value of their firms’ contracts equal their own taxpayer-funded contributions to the program (often known as “work share”). Sometimes they have preselected their own national firm or firms, effectively telling those firms what their technical responsibilities will be. In such cases, coalition interoperability may still be advanced. It is not clear, however, that innovation is encouraged, that the best technology is incorporated, or that delays, risks, and costs are reduced beyond what would have occurred in a U.S.-only development—where the winning firm or firms are presumably chosen on the basis of competitive advantage rather than other, primarily noneconomic criteria.

Security Assistance

Like IAC, Security Assistance encompasses several DoD programs and functions, taking as its goal the enhancement of collective security. Four DoD Security Assistance programs with significant influence on the defense industrial base are discussed here: Foreign Military Sales (FMS), Foreign Military Financing (FMF), Direct Commercial Sales (DCS), and International Military Education and Training.

- **Foreign Military Sales.** FMS is a government-to-government program in which foreign governments purchase defense articles, services, and training from the U.S. government. Since the foreign governments normally pay for the U.S. government’s administrative costs as well as for the articles, the program does not require appropriated funds. The articles may be supplied from existing DoD stocks or may be new. The approval of FMS is dependent on several factors, including export restrictions, the purchaser’s circumstances, and U.S. national security considerations. The U.S. government’s management of the sale of defense equipment can add significant value for the customers, especially if they have not established a sophisticated acquisition system. Purchase agreements can include offsets and other arrangements, including coproduction of defense products.

---

16 This can happen when a government wants to jump-start the technical capabilities of a firm chosen to be a “national champion.” See, for example, cases presented in Lorell and Lowell (1995).
Appendix 4 of the DISAM Green Book provides an excellent comparison of the DCS and FMS methods of foreign nations purchasing U.S. defense articles (DISAM, 2000).

- **Foreign Military Financing.** FMF consists of loans or grants from the U.S. government to foreign nations to purchase U.S. defense articles through FMS or DCS, with the FMS avenue being the more common mechanism. DISAM points out that the practice of offering guaranteed and even forgivable loans has given way to grants.

- **Direct Commercial Sales.** DCS, including licensed coproduction, are also known as “commercial export sales.” Interestingly, the U.S. government considers sales from U.S. industry to foreign governments to be a form of security assistance (DISAM, 2000, Appendix 4). Like FMS, these sales are subject to export restrictions under the Arms Export Control Act (AECA), so they too are subject to U.S. government approval. They are normally paid for by the customer, so congressionally appropriated funds are not required.

- **International Military Education and Training.** The International Military Education and Training program affords U.S. training to foreign military and civilian personnel and is paid for through Congressional appropriations. Although its primary function is not directly related to acquisition, it can promote U.S. exports. Through training, foreign personnel can develop professional relationships with U.S. personnel and can become familiar with—and perhaps establish a preference for—U.S. weapon systems, tactics, and procedures. This can result in FMS or DCS when these individuals return to their regular military duties in their home nations.

Note that FMS and DCS coproduction activities differ from the partnership production programs previously described as a form of IAC, which result from cooperative development programs. FMS coproduction falls under the Security Assistance umbrella and is a government-to-government program involving the manufacture of U.S.-developed defense equipment by foreign industry. DCS involving licensed coproduction requires that U.S. industry obtain a munitions export license, which allows foreign industry to manufacture U.S.-designed defense articles. DoD is involved in the export license...
approval process for licensed coproduction, but industry, not the U.S. government, manages the associated contracting.\textsuperscript{17}

Both Security Assistance and IAC programs are designed to enhance U.S. national and collective security. By design, however, Security Assistance is primarily unidirectional. By standardizing equipment and training, U.S. policymakers believe they can help allies and other friends become more capable of defending themselves and become better prepared to fight in coalition with the United States.\textsuperscript{18} The opportunity to build professional relations between militaries and to provide foreign decisionmakers with firsthand knowledge of U.S. weapon systems and tactics should enhance the United States’ international relations and promote international sales of U.S. weapon systems.

Promoting the sales of U.S. military equipment abroad is a key component of security assistance. For example, while 22 USC 2321i directs that military personnel in U.S. missions abroad “should not encourage, promote, or influence the purchase by any foreign country of U.S.-made military equipment, unless they are specifically instructed to do so by an appropriate official of the executive branch,” the Clinton administration’s U.S. Conventional Arms Transfer Policy, issued by Secretary of State Warren Christopher in February 1995, stated that when an arms transfer decision has been made, U.S. mission personnel should support marketing efforts (DISAM, 2000, Chapter 1, Attachment 1). In harmony with this position, DoD’s leadership has directed military personnel to encourage and promote sales of U.S. defense articles to foreign nations when those sales are consistent with established national security and foreign

\textsuperscript{17} Chapter 10 of the \textit{International Armaments Cooperation Handbook} (Deputy Under Secretary of Defense for International and Commercial Programs, 1996) provides additional details regarding the subtle but significant differences between cooperative production and coproduction. See also DoDD 2000.9.

\textsuperscript{18} See, for example, congressional testimony by former Secretary of State Madeleine Albright: “As we saw several times during the past decade, when America’s military is called upon to act, we will often do so as part of a coalition. Accordingly, I ask your support for our security assistance programs, which contribute to the health of America’s defense industrial base, take advantage of opportunities to promote democratic practices, and help friends and allies to develop armed forces that are more capable and better able to operate with our own” (Albright, 2000).
Military personnel are thus encouraged to endorse the sale of U.S.-built defense products to allies, which should also have a positive impact on the U.S. industrial base.

PROTECTING THE NATIONAL SECURITY

As we have seen, DoD monitors and interacts with the defense industrial base to ensure that it remains competitive, innovative, and responsive. Given today’s consolidating industry bases both here and abroad, these objectives are being met partly through closer international industry cooperation. At the same time, DoD and the Air Force conduct IAC and Security Assistance programs to enhance U.S. and friendly nations’ warfighting effectiveness, both alone and in coalitions. These programs also provide considerable business to U.S. industry.

A third major objective evident in the defense guidance, however, is that any interaction with other nations or international industry must be consistent with U.S. national security policy. That is, policies and programs designed to promote competition and international cooperation must not act to erode the technological advantage that U.S. military forces hold over potential adversaries or in any way reduce the effectiveness of U.S. military capabilities. Unfortunately, the need to restrict transfers of militarily relevant technologies and to maintain U.S. control over key industrial capabilities tends to slow cooperative programs and complicate international relationships, creating some tension for governments and industry between the requirement for national security precautions and the desire to reap the benefits of defense cooperation and globalization.

Overview of Policies Toward Technology Transfer

Broadly speaking, U.S. laws and procedures governing technology transfers abroad consider three aspects of such transfers: the type of technology to be transferred, the characteristics of the intended end

---

user, and the nature of the intended end-use. Technologies with the potential to contribute significantly to military capabilities are controlled in order to protect the United States from countries or groups that might threaten U.S. national security.\textsuperscript{20} Current export control reform initiatives, discussed at greater length below, may soon allow countries that meet certain requirement to be exempted from some (unclassified) export license requirements (DoS, June 2000).

As identified by DISAM (DISAM, 2000, Chapter 20), there are at least three main types of technologies: military technologies, dual-use technologies (i.e., technologies that may be used for both commercial and military purposes), and civilian or consumer technologies. Transfers of purely civilian technologies generally require only a shipping license, which in practice means no more than filling out a Shipper’s Export Declaration form issued by the U.S. Census Bureau. U.S. automobile manufacturers, for example, need only obtain shipping licenses to sell their products overseas. At the other end of the spectrum, military technologies and components are almost always subject to export controls and foreign investment restrictions and, if classified, are also subject to National Disclosure Policy.

Within the constraints of national security and intellectual property rights considerations, DoD is supportive of domestic technology transfers, encouraging defense laboratories to transfer technology to U.S. industry in order to enhance competitiveness and improve the U.S. quality of life (AFPD 63-1). Internationally, DoD’s security assistance and IAC programs promote technology transfers partly as a means of achieving greater interoperability between U.S. and allied forces.

While direct commercial sales and FMS-related exports are often thought of as the primary means by which defense-relevant technology, goods, and services are transferred abroad, other mechanisms are also viable (DoDD 2040.2, paragraph E3.1.12). International cooperative research development, test, evaluation, and acquisition (ICRDTE&A), marketing agreements, teams, information available on the Internet, transfers across business units of multinational corpo-

\textsuperscript{20} However, transfers of nonmilitary technologies to certain countries and end users are sometimes controlled for foreign policy reasons. Commodities deemed to be in “short supply” may also be controlled through EAA 1979.
rations or between company employees of different nationalities, and foreign acquisition of U.S. businesses have also become increasingly important in recent years. All of these arrangements involve some type of technology transfer abroad.

Although issues do frequently arise with respect to the transfer of military technologies, the middle group of dual-use technologies poses special challenges for defense-related trade and investment policy. One reason is that this set of technologies is growing so rapidly. According to the DSB, for example (DSB, 1999, p. 8), “commercial software is pervasive, whether embedded within integrated weapons systems as components or subsystems, or purchased directly by the Department [of Defense] as full-up information systems.” A related reason is that it is becoming increasingly difficult to differentiate between primarily military and primarily civilian technologies, as many satellite, sensor, and advanced electronics applications illustrate. A third reason is that the ability to transfer dual-use technologies abroad is increasingly important to U.S. firms’ competitiveness in global civilian markets—or at least it is perceived as such by U.S. industry as well as by many elements of the policymaking community (DSB, 1999; DISAM, 2000). The tension between national security and healthy industrial base objectives is therefore increasingly pronounced with respect to export controls and other policies affecting transfers of dual-use goods, services, and technologies.

Controls on Defense-Related Trade

A variety of policy instruments, both statutory and regulatory, address the national security aspects of U.S. exports of defense-related goods and services and related technology transfers.\(^\text{21}\) Table 4.1 summarizes the most important of these instruments at the federal level as well as the directives that establish organizational responsibility within DoD for ensuring that improper transfers do not occur.

---

\(^\text{21}\) Although national security protections are designed only to restrict the outbound transfer of U.S. goods, services, and technology to foreign countries, as mentioned in the previous chapter they may also have a limiting effect on imports and inbound technology transfers.
Defense Goods, Services, and Technologies. As reported in Table 4.1, the 1976 AECA, as amended, provides the statutory basis for U.S. government control over the sale and export of defense goods, services, and related technical data. Thus, the implementing regulations for the AECA, the ITAR, cover most of the military Security Assistance and IAC programs described above, including DCS of defense articles and services, FMS, coproduction programs, licensing and data exchange arrangements, and cooperative research, development, test, evaluation, and acquisition (RDTE&A) programs.

The Office of Defense Trade Controls (DTC), a division of the DoS’s Bureau of Political and Military Affairs, is responsible for designating which goods, services, and technologies are deemed to be defense goods, services, and technologies. This designation places them on the U.S. Munitions List (USML), which is contained in the ITAR (22 CFR 121). Each export of a USML item or technology must be licensed by DTC. DTC also has primary responsibility for defining license application procedures. The majority of military export license applications are repeat cases or otherwise routine. DTC evaluates the national security and foreign policy implications of these applications without referring them to other agencies. A minority of cases are referred to DoD.

Although primary responsibility for the USML export licensing process rests with DTC, DoD plays a key role as well. USML designations are made “with the concurrence of the Department of Defense” (22 CFR 120.2), and DTC must consult with DoD before initiating the process of removing an item from the list. As part of the May 2000 Defense Trade Security Initiative (DTSI), discussed at greater length in the following section, DoD and DoS have jointly set up a four-year cycle whereby one-fourth of the USML will be reviewed each year. One of DoD’s primary objectives for this process is to reduce the number of items on the USML by focusing only on truly sensitive and unique military technologies.

DoD is also responsible for reviewing and making recommendations on applications for USML export licenses referred by DTC. In

---

22Except in cases where waivers have been granted, as described below.
Table 4.1
Summary of Statutes, Regulations, and Other Authoritative Guidance Affecting Defense-Related Trade

<table>
<thead>
<tr>
<th>Title and Implementing Regulations</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arms Export Control Act (AECA), Pub.L. 94–329 (1976), 22 USC 2751–2799aa-2</td>
<td>Governs the sale and export of defense articles, services, and data. Establishes U.S. policy toward international programs and projects for the cooperative exchange of data, research, development, production, procurement, and logistics support to achieve specific national defense requirements. Establishes criminal penalties for failing to comply with this act.</td>
</tr>
<tr>
<td>International Traffic in Arms Regulations (ITAR), 22 CFR 120–126</td>
<td>Contain the U.S. Munitions List (USML), which defines the types of defense articles and services that require DoS's approval for export, and enumerates the entities that may request such approval and the general policies and procedures related to exports.</td>
</tr>
<tr>
<td>Export Administration Act (EAA 1979), Pub.L. 96–72, 50 USC</td>
<td>Governs the export of most unclassified articles and services not covered by the AECA, based on their impact on national security, foreign policy or supply availability.</td>
</tr>
<tr>
<td>Executive Order 12924 (1994)</td>
<td>EAA 1979 expired in 1994 but continued to operate under the authority of an executive order (1994–2000). (See 15 CFR 730.2 for a description of the President's statutory authority in this matter.)</td>
</tr>
<tr>
<td>Export Administration Regulations (EAR), 15 CFR 730–774</td>
<td>Implement EAA 1979. Contain the Commerce Control List (CCL) (15 CFR 774), which covers civilian goods that can also enhance the military capability of the recipient (dual-use items).</td>
</tr>
<tr>
<td>DoD 5105.38 M, the Security Assistance Management Manual (SAMM) (June 1, 2001)</td>
<td>Defines fundamental DoD policy toward defense-related technology. Establishes working relationships among the Joint Staff, the services, and the defense agencies for the purpose of institutionalizing technology security responsibilities.</td>
</tr>
<tr>
<td>DoD 2040.2 International Transfers of Technology, Goods, Services, and Munitions (January 1984)</td>
<td>Provides detailed guidance on security assistance programs administered by DoD.</td>
</tr>
<tr>
<td>Defense Capabilities Initiative (DCI) (April 1999)</td>
<td>NATO initiative designed to close the capabilities gap between the United States and NATO allies by enhancing flexibility, mobility, and interoperability.</td>
</tr>
<tr>
<td>Defense Trade Security Initiative (DTSI) (May 2000)</td>
<td>A joint DoS and DoD package of 17 export procedure reforms for unclassified information that are compliant with the existing statutory framework. These reforms are designed to improve the efficiency of international defense industry linkages, thus enhancing transatlantic competition and supporting NATO's DCI while preserving the export controls necessary to protect national security.</td>
</tr>
</tbody>
</table>

SOURCES: GAO (September 2000); DUSD(PS) (2000).
September 2001, responsibility for coordinating DoD’s recommendations regarding export licenses was moved back from the Defense Threat Reduction Agency (DTRA) of USD(AT&L) to the reconstituted Defense Technology Security Agency (DTSA) within the Deputy Under Secretary of Defense for Policy (DUSD[P]).\textsuperscript{24} DTSA is now the DoS’s focal point within DoD for arms transfers and provides advice to senior Pentagon officials on technical aspects of technology security. DTSA receives input and assistance from numerous other DoD organizations for export license application reviews. These include

- The military services, which support DTSA with technical, intelligence, and operational information;
- The Joint Staff, which provides operational and military mission impact assessments; and
- The Defense Intelligence Agency, which, among other things, conducts end-user checks and intelligence reviews on particular transfer cases; assesses the foreign availability of technologies proposed for transfer; and provides intelligence concerning the total effect of technology transfers on U.S. security.

**Dual-Use Goods, Services, and Technologies.** While DTSA supports DoS in the control of military technologies, it supports the Commerce Department in the U.S. government export control regime for dual-use goods, services, and technologies. The Export Administration Regulations (EAR), the implementing mechanism for the 1979 Export Administration Act (EAA 1979), are administered by BXA. BXA establishes which commercial goods, materials, software, and technology (including data and know-how) have military applications and should therefore be listed on the Commerce Control List (CCL). Depending on the final destination, items on the CCL require a validated license. Validated licenses are granted only for specific orders, in specific quantities, and to certain destinations. The CCL is periodically updated by BXA with significant input from DoD, the intelligence community, and the Department of Energy. Under current legislation, however, the Commerce Department is

\textsuperscript{24}Apparently some senior Pentagon officials felt that DTRA’s primary mission—to prevent the proliferation of weapons of mass destruction—had led it to become too conservative in approving conventional arms exports (Muradian, 2001).
not required to consult with DoD when items are removed from the list.

Like the ITAR, the EAR apply to technology transfers as well as to the actual shipment of goods and provision of services to foreign countries. However, applying the EAR entails unique challenges because the CCL encompasses a broad and often ill-defined range of goods and technologies. For example, some types of products on the CCL—such as high-performance computers, lasers, and communications satellites—have the potential to add significant military capability to an unfriendly power yet are sold predominantly for commercial markets and applications. Further, many dual-use products are made from COTS parts and components.25

Another complicating provision of the EAR is the requirement that exporters submit individual validated license applications to BXA if they “know” that an export otherwise exempt from the validated licensing requirements is for “end uses involving nuclear, chemical, and biological weapons, or related missile delivery systems in named destinations listed in the regulations” (BXA, undated a). Pleading ignorance is not allowed: Both managers and employees of exporting firms are required to actively look for “red flags” that might indicate an inappropriate end use, end user, or destination for their product or technology. If any red flags are found, the exporter must obtain documentary evidence that can explain or justify them, which is often a long and costly process.

Finally, a serious concern for all U.S. defense firms—particularly those that are involved in business relationships with foreign firms—is the application of the “deemed export” rule to employees who are foreign nationals (15 CFR 730.5). Under the EAR’s “deemed export” rule, a U.S. company that intends to employ a foreign national on a project involving controlled technology or software must acquire a license from BXA.26 In addition to basic information about the em-

---

25 How to handle products made by integrating COTS parts and components is also a growing issue for USML items.

26 The “deemed export” rule does not apply to foreign nationals who either have permanent residence in the United States (a green card) or are considered “protected individuals” under the Immigration and Naturalization Act (BXA, undated b; 15 CFR 734.2).
ployee such as his or her name, address, citizenship, passport number, and immigration status, the firm must provide “an explanation of the process, product, size, and output capacity of all items to be produced with the technology or software, if applicable, or other description that delineates, defines, and limits the controlled technology or software to be transmitted” (BXA, undated b).

**Restrictions on Foreign Direct Investment in the U.S. Defense Industrial Base**

Mechanisms for overseas technology transfer such as DCS, FMS, and ICRDT&E are of concern to the national security establishment primarily because of their potential to narrow the technological gap between the United States and potential adversaries. This concern also holds true for foreign investment in U.S. industry, but here there are additional dimensions. Perhaps the most significant of these is that to the extent foreign direct investment in the United States allows foreign companies, nations, or nongovernmental organizations (NGOs) to exercise influence over the U.S. defense industrial base, it has the potential to undermine U.S. warfighting ability. Further, foreign direct investment in the United States could give foreigners access to sensitive or classified information. Finally, foreign direct investment in the United States has the potential to reduce competition for weapon system contracts.

Therefore, in addition to controlling foreign access to militarily significant technologies, the legal framework for addressing the national security aspects of foreign direct investment in the United States contains specific provisions for strictly limiting FOCI over U.S. defense firms. As shown in Table 4.2, the major statutes affecting the foreign acquisition of U.S. firms consist of Executive Orders 11858 and 12829, the Exon-Florio Amendment, and the Byrd Amendment. In addition, the United States’ major antitrust legislation applies to foreign direct investment just as it does to domestic industrial activity.

In 1975, Executive Order 11858 established the CFIUS to monitor and evaluate foreign direct investment in U.S. activity. CFIUS is chaired by the Secretary of the Treasury and includes the Secretaries of State, Defense, and Commerce, the Attorney General, the Director of the
Table 4.2

Summary of Statutes, Regulations, and Other Authoritative Guidance Affecting Foreign Acquisition of U.S. Firms

<table>
<thead>
<tr>
<th>Title and Implementing Regulations</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Order 11858 (1975)</td>
<td>Established the interagency Committee on Foreign Investment in the United States (CFIUS) in 1975 to monitor and evaluate foreign direct investment in U.S. activity.</td>
</tr>
<tr>
<td>Defense Production Act of 1950, as amended (7 USC 721) by the Exon-Florio provision and the Byrd Amendment (1988, 1993)</td>
<td>Empowers the President to suspend, prohibit, or dissolve foreign acquisitions, mergers, and takeovers if he determines that the foreign interest has or is attempting to acquire control and might take action that threatens to impair U.S. national security. Also requires a CFIUS investigation whenever (1) the proposed acquirer is controlled by or acting on behalf of a foreign government; and (2) the acquisition could result in foreign control over interstate commerce affecting the national security of the United States.</td>
</tr>
<tr>
<td>Executive Order 12661 (1988)</td>
<td>Delegates the President’s authority under Exon-Florio to CFIUS to investigate foreign direct investment activities and make recommendations to the President.</td>
</tr>
<tr>
<td>Executive Order 10865, ”Safeguarding Classified Information Within Industry” (1960), as amended by Executive Order 10909 (1961) and Executive Order 11382 (1967)</td>
<td>Authorizes the Secretary of Defense to prescribe requirements, restrictions, and other safeguards necessary for industry to protect classified information.</td>
</tr>
<tr>
<td>Sherman Antitrust Act of 1890</td>
<td>Provides authority for the government to block mergers, acquisitions, and other actions that tend to limit competition or create monopolies.</td>
</tr>
<tr>
<td>Clayton Antitrust Act of 1914</td>
<td>Restricts various anticompetitive activities and strengthens the rights of laborers.</td>
</tr>
<tr>
<td>Hart-Scott-Rodino Act of 1976</td>
<td>Requires companies to report planned M&amp;As.</td>
</tr>
</tbody>
</table>

SOURCES: Adapted from GAO (September 2000); and from source documents cited in this table.

aDoD 5220.22-M was originally entitled “The Industrial Security Manual for Safeguarding Classified Information,” as authorized in DoDD 5220.22.
Office of Management and Budget, the U.S. Trade Representative, and the Chairman of the Council of Economic Advisers. Since 1988, committee membership has also included the Director of the Office of Science and Technology Policy, the Assistant to the President for National Security Affairs, and the Assistant to the President for Economic Policy. The committee receives notices of proposed foreign direct investment in U.S. companies; reviews each proposal to determine if it merits a full investigation; and conducts investigations if required.

Prior to 1988, CFIUS did not have a strong national security focus, and its activity was limited. However, the Exon-Florio provision of the Omnibus Trade and Competitiveness Act of 1988 dramatically increased Executive Branch responsibility for protecting the national security in the case of foreign mergers, acquisitions, and takeovers of U.S. firms.\(^{27}\) Exon-Florio empowers the President of the United States to suspend, prohibit, or dissolve foreign acquisitions, mergers, and takeovers if and only if he determines that the foreign interest “might take action that threatens U.S. national security” and if “the provisions of law, other than the International Emergency Economic Powers Act (IEEPA), do not provide adequate and appropriate authority to protect the national security” (U.S. Department of Treasury, undated).\(^{28}\) Pursuant to Executive Order 12661, the President in 1988 delegated some of his Exon-Florio responsibilities to CFIUS. Executive Order 12661 requires that the committee receive notices of foreign acquisitions of U.S. companies to determine whether an investigation is warranted; to undertake that investigation if warranted; and to make recommendations to the President at the conclusion of the investigation.

\(^{27}\)Exon-Florio, as further amended by the FY 1993 National Defense Authorization Act (the Byrd Amendment), is codified as Section 721 of Title 7 of the Defense Production Act of 1950.

\(^{28}\)The Byrd Amendment requires an investigation in all cases where “the acquirer is controlled by or acting on behalf of a foreign government” and “the acquisition could result in control of a person engaged in interstate commerce in the U.S. that could affect the national security of the United States” (U.S. Department of the Treasury, undated).
Exon-Florio defines the following five factors that the President or his designees may consider in their investigation of a proposed foreign investment (50A USC 2170):

1. Domestic production needed for projected national defense requirements;
2. The capability and capacity of domestic industries to meet national defense requirements, including the availability of human resources, products, technology, materials, and other supplies and services;
3. The control of domestic industries and commercial activity by foreign citizens as it affects the capability and capacity of the United States to meet the requirements of national security;
4. The potential effects of the proposed or pending transaction on the sales of military goods, equipment, or technology to any country that supports terrorism or proliferates missile technology or chemical and biological weapons; and
5. The potential effects of the proposed or pending transaction on U.S. technological leadership in areas affecting U.S. national security.

As necessary, the Secretary of Defense may be formally asked how a proposed foreign direct investment transaction should be viewed in terms of these five factors. In such cases, DUSD(IP) works with the appropriate component or components to assess the potential effects on the industrial base and develops a DoD position for the Secretary of Defense. In cases relevant to the Air Force, DUSD(IP) will task SAF/AQRE, who will in turn task the IBP Program to evaluate the case and develop recommendations. To the extent that these factors consider the impact and influence of the proposed foreign direct investment transaction on the health and capability of the U.S. defense industrial base, the Air Force’s IBP Program employs many of the same tools and databases as those used for its other industrial base analyses, including many of the methods outlined in DoDD 5000.60 and DoDD 5000.62. Typically, CFIUS incorporates the DoD
position into its analyses without further interaction with the Air Force. 29

When a CFIUS investigation has been completed, the committee provides a report of their findings, along with recommendations, to the President. The President then has 15 days to review the committee’s recommendations and then decide on and announce a course of action. The entire process from receipt of notice through the President’s announcement must be completed within 90 days. Notifications of planned foreign direct investment transactions are voluntary; however, the President may conduct an investigation and take appropriate actions even after a transaction has been concluded. As prior notification could save industry unnecessary expense and effort should a transaction be revoked, there is a presumption that most if not all proposed transactions that could be relevant to the national security will be voluntarily reported.

There are other provisions in U.S. law that also apply to foreign defense firms operating or seeking to operate in the United States. The Sherman Antitrust Act of 1890, the Clayton Antitrust Act of 1914, and the Hart-Scott-Rodino Act of 1976 all seek to limit anticompetitive activities. All are administered jointly by the Department of Justice and the Federal Trade Commission. Therefore, with the sole purpose of protecting competition, many proposed M&As between foreign and U.S. firms are independently investigated by the Department of Justice or the Federal Trade Commission. 30 As described above, DoD and the Air Force are on occasion asked to provide input to the Department of Justice or the Federal Trade Commission as well as to CFIUS.

Finally, the President’s decision to allow, halt, or require changes to a foreign direct investment transaction is not the only means of protecting U.S. national security with respect to FOCI firms. Established by Executive Order 12829 in 1993, the National Industrial Security Program (NISP) provides protection for classified informa-

29 Interview with Alan Taylor, IBRP Director, February 21, 2001.
30 These two agencies have overlapping jurisdictions but coordinate their efforts to avoid duplication. The Federal Trade Commission investigates most defense-related matters, while the Department of Justice handles most cases involving anticompetitive practices such as price fixing (U.S. Federal Trade Commission, undated).
tion and attempts to prevent foreign investors and owners from exerting influence or control over U.S.-based firms that deal with classified information. NISP is administered for a number of U.S. agencies by DoD’s Defense Security Service (DSS), which is responsible for processing facility and personnel clearances for U.S. contractors requiring access to classified information. The National Industrial Security Program Operating Manual (NISPOM) describes NISP policies and procedures.

For cases that involve U.S. companies with access to classified information, the NISPOM requires that DSS conduct a separate industrial security review to determine how to preclude foreign access to that information. As defined by the NISPOM (Section 2-301-a), “a U.S. company is considered under foreign ownership, control, or influence whenever a foreign interest has the power . . . to direct or decide matters affecting the management or operations of that company in a manner which may result in unauthorized access to classified information or may affect adversely the performance of classified contracts.”

Without the adoption of appropriate negation measures, U.S. subsidiaries of foreign companies, joint ventures between U.S. and foreign companies, and many international marketing agreements and teaming arrangements could not operate effectively without compromising facility clearance eligibility. This is because of the risks they pose for unauthorized transfers of classified information and because important management positions tend to be held by non–U.S. citizens in these types of arrangements.

With respect to foreign acquisitions of U.S. companies, CFIUS and DSS industrial security reviews are carried out in two parallel but separate processes with different time constraints and considerations. CFIUS reviews are conducted on a case-by-case basis with specific requirements for timeliness, reporting, and announcements of decisions and findings. All told, the process cannot take more than 90 days from the date of notification. According to the NISPOM (Section 2-304), when industrial security concerns arise surrounding a case under review by CFIUS, an agreement should ideally be reached with the proposed foreign investor before CFIUS formulates

---

31 DoD 5220.22-R, Section 2-202, and Section 2-302 of the NISPOM provide a more exhaustive list of factors to consider when determining if a company is under FOCI.
its recommendation (ASD [C3I], 1995). However, a security agreement cannot be signed until the proposed foreign investor legally completes the transaction. When a recommended security arrangement is rejected by the investor and alternative, mutually agreeable terms of such an arrangement are not apparent, further negotiations can be continued well beyond the original 90 days.

The security measures imposed on FOCI firms depend on the nature of the FOCI. If the issue is foreign control or influence rather than ownership, FOCI negation plans must ensure that the relevant foreign person or persons are denied access to classified information and cannot affect performance on classified contracts. Examples of such measures include the modification or termination of loan agreements or contracts with foreign interests; the diversification or reduction of foreign source income; and the physical or organizational separation of the facility component performing on classified contracts (NISPOM, Section 2-305-b).

If the issue is foreign ownership—which is always relevant in CFIUS cases—a security concern arises when a foreign shareholder has the ability to control or influence the election or appointment of one or more members of the board of directors of the U.S. firm. CFIUS commonly applies one of the following mitigation approaches (NISPOM, Section 2-306; DoD 5220.22-R, Section 2-205):

- Board resolutions are employed in cases where the foreign person’s influence is insufficient to elect board members or be otherwise represented on the board of directors. In these cases, the board must identify the foreign shareholders and the type and number of foreign-owned stock. The board must acknowledge the applicant’s obligation to comply with industrial security and export control requirements and must certify initially and annually thereafter that the foreign shareholder will not be involved with classified information or export-controlled technology. The FOCI company must distribute these resolutions to its board members and principal officers and must record the distribution in its corporate records.

- Voting trust agreements and proxy agreements are similar arrangements that can be employed when the foreign ownership is sufficient to gain representation on the FOCI firm’s board of di-
rectors. Both arrangements require that the foreign owner’s voting rights be vested with cleared U.S. citizens approved by the U.S. government.32 The foreign owner is consulted on the sale or disposal of company assets as well as financial pledges, mortgages, mergers, reorganizations, dissolutions, and bankruptcies. In operational matters, however, the proxy holders or trustees are to direct the company uninfluenced by the foreign owner. These agreements preserve a company’s eligibility to have access to classified information or to enter into classified contracts by severely limiting the foreign owner’s control over the company.

- Special security agreements (SSAs) allow foreign nationals to serve on the FOCI firm’s board of directors as representatives of the foreign owner (“inside directors”) and to influence most aspects of company management. However, cleared U.S. “outside directors” are appointed to ensure that classified information is protected from unauthorized or inadvertent access by the foreign owners. Unlike proxy or voting trust agreements, SSAs impose operational restrictions on the FOCI firm’s access to classified information. In particular, firms operating under an SSA can access classified information above the level of Secret only if the government contracting activity determines that it is in the national interest to allow them access to such information.33 This judgment is rendered in a National Interest Determination (NID).

- A limited facility clearance can be granted to FOCI companies whose foreign owners are citizens of certain nations. Access is normally granted when the U.S. has entered into Industrial Security Agreements with the foreign owners’ governments. In these cases access is limited to classified information required to fulfill the terms of a contract involving that government.

---

32 According to DoD 5220.22-R, in a voting trust the foreign owners transfer legal title of their stock to the trustees, while in a proxy agreement the foreign owners transfer their voting rights to the proxy holders by means of an irrevocable proxy while retaining ownership.

33 “Proscribed” information, as defined by the NISPOM, Appendix C. The U.S. government must also have a general security agreement with the foreign government involved.
SSAs are the most common form of FOCI negation measure (Ciardello, 2001). Under 10 USC 2536, the Secretary of Defense may allow the award of a contract involving classified information to a foreign entity (including firms operating under SSAs) if he or she determines that it is in the U.S. national interest. However, DFARS as well as DoD and Air Force guidance impose more rigorous national security requirements on the NID and therefore present a greater obstacle to foreign direct investment in the U.S. defense industry.

According to DFARS, a NID must include “(1) identification of the proposed awardee, with a synopsis of its foreign ownership (include solicitation and other reference numbers to identify the action); (2) [a] general description of the acquisition and performance requirements; (3) identification of the national security interests involved and the ways in which award of the contract helps advance those interests; (4) statement as to availability of another entity with the capacity, capability and technical expertise to satisfy defense acquisition, technology base, or industrial base requirements; and (5) description of any alternate means available to satisfy the requirement, e.g., use of substitute products or technology or alternate approaches to accomplish the program objectives” (DFARS Part 209.104-1[g][ii][C]). In addition, the NISPOM requires that the NID indicate why any U.S. company with the capability to produce the product should be denied the contract, as well as any reasons alternative means to satisfy the requirement are not acceptable. AFI 31-601 further states that the NID must “explain how the FOCI contractor’s product or service is crucial or is the sole available source to the Air Force.”

If the purpose of a NID is to ensure that contracts are awarded to a foreign company only when there is no U.S.-based alternative, these added requirements are simply extensions to the Title 10 requirement. The statute’s stated purpose, however, is to ensure that the contract award advances the national security interests of the United States. As the DSB points out (1999, p. 17), these intensified requirements may be placing foreign firms at a significant competitive disadvantage. If DoD determines that it is in the national interest to use foreign companies—including U.S. subsidiaries of foreign-owned companies—to enhance competition, these more restrictive implementing requirements may be working against that purpose. Further research is required to determine if
this is significantly limiting competition in practice and if national security concerns warrant such limitations.

NATIONAL SECURITY POLICIES: A LOOK AHEAD

U.S. policymakers and industry leaders agree on the undesirability of transferring military equipment and technology to countries that support terrorism or proliferate missiles or chemical and biological weapons. They do not all agree, however, on the extent to which U.S. laws, regulations, and policies designed to control militarily relevant technology transfer, limit foreign influence and control over the U.S. defense industrial base, and restrict access to sensitive or classified information reflect an appropriate trade-off between national security protection and other goals. In the discussion that follows, we outline industry, DoD and Air Force, and other government department and agency perspectives on how best to protect U.S. national security in the context of a globalizing defense industrial base. We also describe how differences in these perspectives may affect recent and ongoing efforts to reform U.S. laws governing defense and dual-use exports as well as foreign direct investment in defense-related industries.

U.S. aerospace industry leaders see the ability to participate actively in the global marketplace as vital to their companies’ long-term health, competitiveness, and growth. Conversely, they see export controls—and, less critically, Exon-Florio—as impediments to partnerships with foreign firms that can provide them with increasingly valuable technological capabilities as well as foreign market access.34 The aerospace industry would therefore like to see sweeping changes to U.S. national security policies, including the following:

- Limiting the USML to only the most militarily critical technologies;
- Limiting the CCL to technologies that have limited availability outside the United States;

---

• Reducing congressional notification for noncontroversial sales;
• Improving licensing approval times and reducing the unpredictability of approval for both USML and CCL items;
• Authorizing allies to retransfer U.S. parts and components if they have export controls comparable to ours;
• Ending the practice of publishing offset commitments to foreign governments on defense sales; and
• Expedited CFIUS reviews of proposed M&A activities (AIAA, 2001).

For the most part, OSD and the Air Force support these industry positions. In February 2001, SAF/AQ’s Darlene Druyun strongly endorsed the conclusions reached in an aerospace conference she chaired entitled “Defense Reform 2001.” In that conference, many panel members were highly critical of both ITAR and EAR controls (AIAA, 2001). In their widely cited 1999 Task Force Report on Globalization of the Defense Industry, DSB also concluded that current U.S. export licensing policy is outdated to the point of being counterproductive. DSB stated:

Clinging to a failed policy of export controls has undesirable consequences beyond self-delusion. It can limit the special influence the United States might otherwise accrue as a global provider and supporter of military equipment and services. . . . Equally obvious, shutting U.S. companies out of markets served instead by foreign firms will weaken the U.S. commercial advanced technology and defense sectors upon which U.S. economic security and military-technical advantages depend (DSB, 1999, p. vii).

DSB added:

[T]he more the United States depends on technology controls for maintaining the capability gap between its military forces and those of its competitors, the greater the likelihood that the gap will narrow. . . . [T]echnology controls ultimately will not succeed in denying its competitors access to militarily useful technology. . . . [A]t most, they will buy the United States time to engage in the further research, development and acquisition required to maintain its position of dominance (DSB, 1999, pp. vii–viii).
Overall, rather than urging tighter controls to protect it, DSB recommended that actions be taken to reinvigorate the U.S. defense industrial base in order to keep the newest and most innovative technologies and capabilities flowing to U.S., NATO, and other allied warfighters.

Two initiatives introduced since April 1999—the Defense Capabilities Initiative (DCI) and the Defense Trade Security Initiative (DTSI)—reflect this DoD priority, as do related efforts to extend country-specific ITAR exemptions to the UK and Australia through bilateral negotiations. DoD has also generally supported congressional efforts to authorize a less restrictive version of EAA 1979 and has opposed efforts to make the CFIUS review process more restrictive.

**Defense Capabilities Initiative**

By the end of the 1990s, experiences in Iraq, Bosnia-Herzegovina, and, most recently, Kosovo had convinced senior U.S. and NATO officials that alliance force structures were inadequate to meet 21st century security challenges (Cohen, 1998; NATO, 2000a). At the beginning of the Bosnian campaign, for example, NATO found that units from different nations could not talk to one another because of incompatible equipment. Kosovo further demonstrated that capabilities such as strategic lift, aerial refueling, support jamming, secure communications, and precision-guided munitions—all identified as key to mission success—were either weak or lacking in European allied forces (Kutner, 2000; and Robertson, 1999).

Spurred by the United States, NATO leaders launched DCI at their April 1999 Washington Summit. DCI identifies five functional areas in which alliance capabilities need to be improved:

- Rapid deployment of forces to locations where they are needed, including areas outside alliance territory (deployability and mobility);
- Maintenance and supply of forces far from their home bases and availability of sufficient fresh forces for long-duration operations (sustainability);
- Successful engagement of adversaries in all types of operations, from high to low intensity (effective engagement);
• Protection of forces and infrastructure against current and future threats (survivability); and
• Command, control, and information systems that are compatible with each other to enable forces from different countries to work together effectively (interoperable communications).

In each of these areas, DCI has two major objectives: closing the capabilities gap between the United States and its NATO allies, and enhancing the flexibility, mobility, and interoperability of allied forces (NATO, 1999). The achievement of these objectives, however, requires first that the European NATO nations increase their military capabilities—which will likely require increased spending on defense acquisition—and second that the United States assist the Europeans by sharing more technologies and capabilities. Thus, a major component of the United States commitment to implementing DCI is to reform its export procedures in order to enable its NATO allies to close the warfighting capabilities gap.35

Defense Trade Security Initiative

In May 2000, former Secretary of State Madeleine Albright announced the introduction of DTSI. DTSI is a package of reform measures jointly devised by DoD and DoS that are intended to streamline the U.S. defense export licensing process. Proponents of DTSI hope it will encourage U.S. defense firms to forge closer linkages with firms from friendly foreign nations (DoS and USD[AT&L], 2000). Although DTSI does not focus exclusively on NATO nations, it is the primary vehicle for implementing U.S. obligations under DCI.

DTSI consists of 17 proposed license reforms for transfers of unclassified information, equipment, and services. Although sometimes called “export reforms,” these measures have the potential to affect many other types of business activities. DTSI’s proposed reforms can be grouped in the following four categories:36

35DCI establishes policies to improve allied doctrinal and logistic interoperability as well as technical interoperability, but these concepts are not discussed here. See, for example, NATO (NATO, 2001) and Codner (1999).

36These categorizations and descriptions are summarized from “Defense Trade Security Initiatives,” a DSCA background paper available at http://www.dsca.osd
• **The creation of new license authorizations (proposals 1–4).** DTSI creates four new “global” license categories for entire programs or projects. These categories are designed to eliminate authorized exporters’ need to acquire individual licenses for transfers of defense hardware, technical data, services, and development, manufacturing, and logistical support when such items are part of a major program or project involving a NATO government, Japan, Australia, or Sweden. They cover U.S. government–sanctioned programs in which a U.S. company is the original equipment manufacturer; foreign government–sponsored commercial competitions; U.S. exporters performing activities in support of IAC programs; and qualified U.S. defense companies exchanging technical data with NATO, Japanese, Australian, or Swedish firms to explore opportunities for international business arrangements such as M&As, joint ventures, and teaming.37

• **Expanding the scope of existing license practices (proposals 5–9).** These expanded licenses will authorize overseas warehousing and preauthorize third-party transfers; will accelerate licensing in support of DCI-related programs; and will improve export license evaluation coordination between DoS and DoD.

• **Improving existing ITAR exemptions (proposals 10–14).** A key reform in this category is the authorization of an ITAR licensing exemption for unclassified material applicable to NATO allies and approved host-country defense firms that demonstrate export and licensing policies and procedures comparable to those of the United States. This category also extends ITAR exemptions to maintenance and training in support of allied equipment and technical data exchange with potential foreign bidding partners on proposals for DoD acquisition programs. It calls for more frequent use of existing DoD authorizations for ITAR exemptions as

---

37Sweden was added in June 2001. See White House Office of the Press Secretary (2001).
well as streamlined licensing of commercial satellite components and technical data for major allies.  

• Improving transfers relative to government-to-government programs (proposals 15–17). This category includes the elimination of license requirements for technical data and services in support of approved FMS sales as well as advanced retransfer consent to foreign governments that sign global end-use or retransfer assurances. In addition, the USML is to be completely reviewed every four years with the purpose of updating the list to include only military-critical items that are not widely available.

Since May 2000, DoD has taken several internal administrative steps to support the implementation of DTSI. To speed up license processing times, for example, DTSA is sending a large number of cases back to DTC without referring them to other DoD organizations. According to former DUSD(IA) Jeffrey Bialos, “Rather than having DTRA [now DTSA] refer 70 percent of incoming license requests at DoD to the services and other components, [DoD is] reversing that ratio and moving toward referring only 30 percent of the cases” (Bialos, 2000, pp. 9–10). More recently, former Deputy Assistant Secretary of State for Political/Military Affairs Gregory Suchan stated that processing times have dropped from 15 to 8 days for application licenses that are not referred to other agencies, and from 69 to 60 days for applications that are.

Although senior Pentagon officials have been strong advocates of DTSI, support from other U.S. government departments and agencies has been qualified. In an August 2000 report, for example, GAO argued that several of the DTSI proposals were based on incomplete data and perhaps faulty analysis. GAO further pointed to several areas where it perceived a lack of agreement between DoD and DoS, including the timeline for implementing the proposals, the nature and scope of the proposed interagency computer system, and the manner in which to set criteria or parameters for assessing the comparability of allied countries’ export regimes. A key concern for DoS, according to GAO, was that even the closest of U.S. allies might not

---

38 This DTSI provision fulfills the requirements of Section 1309(a) of the FY 2001 Foreign Relations Authorization Act.
have sufficient controls in place to prevent the reexport of military technologies to third countries (GAO, August 2000).

Concerns over the possible proliferation of technologically advanced U.S.-developed weapon systems as a result of the relaxing of export controls—whether through DTSI or through any other reform measures—are important and legitimate. To counter these concerns, DTSI’s provisions require that importing nations have or adopt export and retransfer policies and practices that are comparable to those of the United States. These provisions are intended to reduce original exports of allied defense products as well as to eliminate the retransferring of sensitive U.S. defense articles to nations that the United States perceives as potential adversaries (DoS, 2000). Supporters of DTSI thus argue that if implemented correctly, DTSI should reduce proliferation, not encourage it. In their view, the DTSI proposal to extend ITAR exemptions on unclassified exports to countries that “share with the United States congruent and reciprocal policies in export controls, industrial security, intelligence, law enforcement, and reciprocity in market access” holds the potential to encourage dramatically closer defense industrial relationships between the United States and its major allies (DoS, 2000).

Bilateral Discussion with a View Toward Country-Wide ITAR Exemptions

In fact, well before the formulation of DTSI by DoS and DoD, DoD had already initiated bilateral discussions as a step toward encouraging greater integration of the U.S. and allied defense industrial bases. In February 2000, a nonbinding Declaration of Principles was signed by former Secretary of Defense William S. Cohen and the UK’s Secretary of State for Defence, Geoffrey Hoon. A similar Statement of Principles between the United States and Australia was signed five months later. In both cases, it was possible to reach the negotiation stage because of agreement over the basic areas in which congruence and reciprocity are required. These areas, designated “the five pillars of cooperation” by former Deputy Secretary of Defense John Hamre, are as follows:

- Export control processes;
- Industrial security policies and procedures;
• Intelligence cooperation on matters of industrial security;
• Law enforcement cooperation; and
• Access to defense markets (Hamre, 2000).

It is too soon to know whether these two bilateral understandings can be further developed into binding agreements, but as of September 2001, some progress has been made. The January 2001 U.S.-UK Joint Statement on Defense Export Controls summarizes steps both nations have taken to explicitly address each of the five pillars (DoS, Office of the Spokesman, 2001). Confirming a high level of commonality between the USML and the UK’s Military List, extending UK export controls to intangible transfers, and adding anti-third party transfer procedures to the UK licensing process are among the steps either taken or proposed.

A model for both understandings is the U.S. relationship with Canada, which is considered to be part of the U.S. defense industrial base for production planning purposes (DFARS Part 225, paragraph 225.870). Many factors have contributed to the development of such an open trading relationship, including harmonized policies and procedures related to the five pillars listed above. However, even the U.S.-Canadian relationship requires attention and effort. In April 1999, for example, the United States temporarily suspended Canada’s ITAR exemption after it found that Canadian firms had exported sensitive technology to Iran and China (DoS, Office of the Spokesman, 2000). In any case, the U.S.-Canada harmonization precedent may be difficult to duplicate with the UK and Australia by virtue of the far greater differences in these countries export control regimes.

The ultimate goal for DoD and perhaps other U.S. policymakers has been to extend bilateral discussions and agreements on export controls to multilateral discussions with NATO and other friendly nations (Bialos, 2000). The reasons are both pragmatic and strategic. Pragmatically, a bilateral agreement between the United States and the UK may have little impact given the consolidation of Europe’s defense industrial base. Bilateral agreements cannot efficiently ac-

---

commodate the effective operation of major multinational weapon system integrators or the multinational workforces of many smaller European defense companies. Strategically, the culmination of many individual bilateral agreements would effectively be to create a new multilateral arms control arrangement based on the U.S. system. Given the perceived weakness of the current multilateral regime, the Wassenaar Arrangement, this could be highly desirable from a national security standpoint.\textsuperscript{40}

\textbf{Reauthorization of EAA 1979}

DTSI and the bilateral discussions with the UK and Australia focus primarily on liberalizing the export control regime for military products, services, and technologies—that is, the ITAR. However, DoD also sees export controls on dual-use items as a major barrier to full defense cooperation with U.S. allies. DoD has therefore been broadly supportive of congressional efforts to revise and rewrite EAA 1979.

As a result of congressional differences over whether or how much it ought to be liberalized, the dual-use export control system mandated by EAA 1979 has been upheld since its expiration in 1994 through a series of temporary statutory extensions and by executive order under the authority of the IEEPA. This situation has been unsatisfactory to DoD as well as to others because, among other reasons, the IEEPA-based regime imposes lower penalties for violations and decreases the time available to DoD for license review from 40 to 30 days (Mancuso, 2000; U.S. Senate, April 2001).

After a failed attempt to pass a bill in FY 2000, a bill to reauthorize EAA 1979 was once again approved by the Senate Banking Committee in March 2001. Key national security features of EAA 2001 that differ from EAA 1979 are as follows:

\begin{itemize}
\item[40] Although in principle an important tool for limiting transfers of conventional arms and arms technologies, most analysts agree that as of now, both structural and procedural shortfalls render Wassenaar ineffective for most U.S. national security purposes. See the congressionally sponsored Study Group on Enhancing Multilateral Export Controls for U.S. National Security (2001) for discussions of the Wassenaar Arrangement, its weaknesses, and ways it might be made more effective. DSB (1999) also briefly outlines reasons U.S. controls on conventional weapons—particularly dual-use technologies—are essentially unilateral.
\end{itemize}
• It establishes a National Security Control List for items that contribute to the military potential of other countries, or to stem weapon proliferation or deter terrorism;

• It requires the concurrence of the Secretary of Defense for items included on or taken off the list;

• It removes controls on items with foreign availability or mass-market status but allows the President to reimpose controls to advance U.S. national security;

• It creates an Office of Technology Evaluation within the Commerce Department to gather, coordinate, and analyze information on foreign availability and the mass-market status of items;

• It provides for enhanced controls on items, regardless of status, if the President finds that removing controls would pose a significant threat to U.S. national security;

• It establishes a five-level country tiering system for each controlled item or group of items;

• It establishes criteria for license review on the basis of the characteristics of the item, the threat to the United States from misuse or diversion of the item, and the effectiveness of national security controls on the item, and specifies new timelines for the initial review and referral process;

• It establishes an interagency dispute resolution process for disputed license applications; and

• It encourages U.S. participation in new and existing multilateral export control regimes.41

As of September 2001, the Senate was debating EAA 2001. One of the most salient issues for legislators who oppose the new bill is its apparent presumption that commercial concerns should be given weight equal to or even greater than that of national security concerns. Senator Richard Shelby, for example (U.S. Senate, April 2001),

41This list describes major provisions of S. 149, the Senate version of EAA 2001, which is the basis for all four of the versions of EAA 2001 introduced into the House. See U.S. Senate (January 2001 and April 2001).
has argued that the new bill “provides overly broad or exclusive author-
ity to the Secretary of Commerce on important procedural issues
such as commodity classifications, license and dispute referrals, li-
cense exemptions, and development of export administration regu-
lations.” Shelby and others are particularly concerned about the
need for DoS and especially DoD to be given more authority and a
larger role in the export licensing process.42

DoD officials have indeed argued in the past that the Commerce
Department refers too few commodity classification requests to the
agency for review. According to Mancuso (2000), out of 2723 com-
modity classification requests sent to the Commerce Department in
FY 1998, just 12 were referred to DoD for review. DoD leaders be-
lieve, however, that EAA 2001 will allow for a “timely, transparent,and
disciplined process for Department of Defense review of com-
modity classifications” (Tarbell, 2001).

DoD is further convinced that attempts to control many of the items
on the CCL are futile. According to DSB (DSB, 1999, p. 8), “the
commercial sector, which pays scant attention to national bound-
aries, is now driving the development of much of the advanced
technology integrated into modern information-intensive military
systems.” For this reason, even under the current legislation,
BXA cannot effectively control mass-market commercial-grade
microprocessors, for example, even when they are incorporated as
components of sophisticated missile guidance systems. Instead, the
integrated guidance systems are included on the USML (22 CFR
120.3). One reason is that unilateral U.S. export controls on mass-
market microprocessors would be extremely difficult to implement
in that large quantities of simple general-use microprocessors are
manufactured overseas and sold through multiple international dis-
tribution channels.43 Furthermore, stand-alone commercial com-
ponents such as microprocessors have little military value without

42Opponents of the bill also do not like the mass-market, foreign availability, overseas
production, or incorporated parts provisions of the bill, which could significantly re-
duce the number of items controlled under the new regime (U.S. Senate, April 2001).

43However, general-purpose, high-performance microprocessors, as well as certain
application-specific microprocessors, have greater potential to increase military ca-
pability and are controlled under the EAR (White House Office of the Press Secretary,
1999).
the added technical knowledge that is required to integrate them into military products.

Nevertheless, whether and how to impose export controls is a difficult question for “high performance” items that are rapidly gaining mass-market status. Between January 1993 and January 2001, for example, export controls on high-performance computers were revised six times as the power and capabilities of widely available computing systems continued to surpass control levels. In recognition of this widespread availability, a major revision of U.S. export control policy occurred in January 2001, when then-President Clinton granted license exceptions for shipments of high-performance computers to qualified end users and users in qualified countries (BXA, 2001). At the time of this last revision, the Clinton administration also recommended that Congress repeal those provisions of the FY 1998 National Defense Authorization Act that control high-performance computer exports to countries such as India, Pakistan, Russia, China, Vietnam, and certain Middle Eastern and Central European nations (Reuters, 2001). An even more liberal treatment of high-performance computer exports is a key feature of the debate over EAA 2001.

Trends in Foreign Direct Investment and Industrial Security Policies

Consistent with its intent to foster closer industrial linkages with key allies, DoD’s position on foreign direct investment and FOCI in important segments of the defense industry appears to have liberalized over the last decade.44 In FY 2000, DoD reviewed more than 60 CFIUS cases, several of which involved significant transactions that affect the U.S. defense industrial base. Among them were the following:

- The acquisition of Lockheed Martin’s Aerospace Electronics Systems and Control Systems businesses by the British firm BAE Systems;
- The creation of U.S. subsidiaries of the multinational EADS;

---

44One former senior DoD official told us that the U.S. government had decided to allow greater foreign direct investment in the U.S. defense industrial base in return for foreign promises to abjure bribery and to tighten up on third-party transfers.
The acquisition of Racal Electronics PLC and its U.S. subsidiary, Racal Communications, Inc., by the French firm Thomson-CSF (now Thales);

The merger of Electro-Optics Industries Ltd. (ELOP) and its U.S. subsidiary, Kollsman, Inc., with Elbit Systems Ltd. of Israel; and

The acquisitions of the Fairchild Defense Division of Orbital Sciences Corporation and the TI Group by the British firm Smiths Industries (DUSD[IA], 2001).

Although DoD did seek NISP risk mitigation measures in cases where the U.S. firms being acquired had access to classified defense technologies, this list nevertheless represents a major liberalization of policy since the early 1990s, when Thomson-CSF (now Thales) was forced to halt its attempted acquisition of LTV in part as a result of opposition from DoD.

An important question with respect to both the CFIUS process and NISP restrictions is the extent to which these measures have actually discouraged desirable as opposed to undesirable foreign investment—or any foreign investment at all. According to GAO, 1300 (or about 17 percent) of the nearly 7400 foreign acquisitions of U.S. companies reported to the Commerce Department between 1988 and 1999 were also reported to CFIUS (GAO, June 2000). From 1988 through spring 2001, just 20 out of 1356 cases reviewed were subject to presidential investigations (Ciardello, 2001). Moreover, there was just one forced divestiture, which involved a Chinese aerospace firm’s acquisition of a parts manufacturer in 1989, and there were only two major voluntary withdrawals. GAO further reports that CFIUS was not informed of at least three foreign acquisitions of U.S. companies that had been identified by DoD, DoS, or the Treasury Department as having potential implications for national security. GAO also argues that there may have been more such cases, pointing to possible defects in the process CFIUS uses to identify foreign acquisitions with possible effects on national security (GAO, June 2000, p. 29). Nevertheless, it would seem that CFIUS and Exon-Florio are not major threats to friendly-nation companies’ attempts to invest in the U.S. defense industry.

Another important question concerns the extent to which the U.S. export control regime together with Exon-Florio have encouraged
U.S. and foreign firms to form business relationships designed to evade or minimize the effects of regulation. For example, are U.S. and foreign firms choosing relationships such as teaming agreements rather than conducting more formal M&As in order to avoid the provisions of Exon-Florio? And, if so, what are the implications? GAO (GAO, September 2000, p. 2) found that the companies it reviewed did not “consider the U.S. legal and regulatory environment to be a major impediment to forming an alliance or a principal determinant of the type of alliance chosen.” However, these companies were concerned about the effects of slow technology transfers—especially U.S. controls on third-party transfers—on their current alliance operations and future alliance sales. They also appeared concerned about costs imposed as a result of the regulations. There is, in addition, some evidence that contradicts GAO’s findings. For example, it would appear that Europe’s largest satellite manufacturer, Astrium, may be considering a teaming arrangement in order to avoid case-by-case export control scrutiny (Pasztor, 2001).

Summary and a Look Ahead

The Air Force and OSD both believe that the key to equipping Air Force warfighters with superior yet affordable weapon systems is competition. Although expanding the field to foreign industry has not become the major thrust of Air Force and OSD competition strategy, laws and regulations require and encourage acquisition personnel to allow international sources to compete, and the more general competition-promotion policies do have the potential to encourage greater competition from abroad. Further relaxation of domestic source restrictions such as the Buy America Act and 10 USC 2534 should also encourage greater foreign participation in Air Force contract competitions—although the limited number of restrictions on defense products that have not already been waived suggests that the effects of further relaxation may be small. Overall, attitudinal changes may be more necessary than regulatory changes in creating a more level playing field for products and technologies provided by foreign defense firms.

A second and probably more significant objective guiding Air Force and OSD policy toward defense globalization is preparation for coalition warfare. The Air Force and OSD believe that effective coali-
tion operations require greater interoperability of equipment—a goal that can best be achieved through well-coordinated ICRDT&E programs and International Cooperative Programs (ICPs), foreign acquisitions, and the sale of U.S. equipment abroad. They are therefore actively seeking to lower unnecessary barriers to IAC and Security Assistance programs such as these, including barriers resulting from national security precautions.

The third and final objective guiding Air Force and OSD policy toward defense globalization is protection of the national security. Export control regimes such as the ITAR and EAR are designed to prevent the technological advantage of U.S. military forces from eroding. Restrictions on foreign direct investment in the United States through the CFIUS process and the NISP are designed to prevent foreigners from exerting undue influence over the U.S. defense industrial base as well as to keep them from inappropriately accessing classified information.

The Air Force and DoD now believe, however, that at least some of these national security–related constraints have become ineffective and even counterproductive since the end of the Cold War. DoD has therefore supported—and in some cases initiated—several important proposed reforms to the national security policies governing the globalization of international trade and investment markets. Reforms aimed at the ITAR include DTSI as well as bilateral negotiations with the UK and Australia; reforms aimed at the dual-use export control regime include support for EAA 2001, which is currently embroiled in congressional debate. Less visibly, DoD has also liberalized its position on foreign direct investment and FOCI by major allies in important segments of the defense industry.

Finally, the question remains to what extent DoD competition, defense cooperation, and especially national security policies discourage or encourage globalization in general and certain types of cross-border business relationships in particular. For example, to what extent do the two U.S. export control regimes discourage international trade involving licensed production of U.S. military technologies? Are U.S. and foreign firms choosing relationships such as teaming instead of equity-based linkages in order to avoid the CFIUS process? Finally, what types of cross-border business relationships should the Air Force prefer given its competition, defense coopera-
tion, and national security objectives? Future case studies and those reviewed in the following chapter should help answer these questions.