Above All, Do No Harm: The Application of the Exon-Florio Amendment to Dual-Use Technologies

Gerald T. Nowak
University of Michigan Law School

Follow this and additional works at: http://repository.law.umich.edu/mjil

Part of the International Trade Law Commons, Legislation Commons, National Security Law Commons, and the Science and Technology Law Commons

Recommended Citation
Available at: http://repository.law.umich.edu/mjil/vol13/iss4/9

This Note is brought to you for free and open access by the Journals at University of Michigan Law School Scholarship Repository. It has been accepted for inclusion in Michigan Journal of International Law by an authorized editor of University of Michigan Law School Scholarship Repository. For more information, please contact mlaw.repository@umich.edu.
ABOVE ALL, DO NO HARM: THE
APPLICATION OF THE EXON-FLORIO
AMENDMENT TO DUAL-USE
TECHNOLOGIES

Gerald T. Nowak*

INTRODUCTION

The concept of national security is difficult to define. Even during
the height of the Cold War, when we lived in a strictly bipolar world
and it was clear which countries fell into which camp, debate raged
over how best to protect our national security. In this historic era,
marked by the dissolution of the Soviet Union, the concept of national
military security can be easily overwhelmed by slogans of national eco-
nomic security, which often champion trade protectionism.1 As U.S.
military security seems less in peril, the attention of the voting public
turns inward to economic issues.2 The political climate is ripe for a
new presidential administration to misuse trade legislation designed to
protect the physical and military security of the United States solely
for the purpose of trade protectionism.3 In response to this growing
possibility, the European Community (EC) and its Member States re-
cently issued a joint declaration expressing their concern over possible
U.S. protectionism.4

* Michigan State University, B.A. 1986; Auburn University, M.B.A. 1990; University of
Michigan Law School, Class of 1993; former U.S. Air Force Officer. The author is deeply in-
debted to Professor William J. Adams for his insight and encouragement.

1. Two of this year's major party candidates for president have adopted protectionism as a
key campaign issue. See William Neikirk, Pat and Jerry, the High Priests of Protectionism, CHI.
TRIB., Mar. 18, 1992, at C21; Donald Lambro, Buchanan Sees GOP as Adrift, WASH. TIMES,
Feb. 16, 1992, at A6. See also Norma Greenaway, There's a New Patriotic Fervor Afoot in the
United States—The Push is on to "Buy American," OTTAWA CITIZEN, Mar. 28, 1992, at B4;
John Schwartz et al., The Push to Buy American, NEWSWEEK, Feb. 3, 1992, at 32. For a histori-
cal view see David Bercuson, U.S. Retreats Into Isolationism Again, FIN. POST, Mar. 23, 1992,
§ 4, at 2.

2. See Lance Morrow, Voters are Mad as Hell, TIME, Mar. 2, 1992, at 17, 20. For a thought-
ful discussion of the underlying economic trends causing this "new protectionism," see Jagdish

3. See Edward Felsenthal, Threat to the Republic? The Politics of Foreign Direct Investment
in the United States, 14 FLETCHER F. OF WORLD AFF. 354 (1990). There have even been argu-
ments that foreign direct investment in the United States represents an unacceptable influence on
U.S. culture, particularly with regard to treatment of minorities and women. See William H.
Lash III, Unwelcome Imports: Racism, Sexism, and Foreign Investment, 13 MICH. J. INT'L

4. Statement by the European Community and its Member States Regarding U.S. Policy on
The EC's concern is over legislation currently in place which gives the president of the United States the power to block any transaction which threatens to impair national security. Known as the Exon-Florio Amendment to the 1988 Omnibus Trade Bill, the statute is aimed at protecting two elements of national security: maintaining a domestic defense industrial base to ensure our ability to rapidly build up our military in times of need, and preventing the transfer of sensitive military technologies to unfriendly nations.

Legislation has been introduced, however, which should give the EC and others supporting free trade even greater cause for concern. Specifically, the Technology Preservation Act, introduced June 12, 1991 by Representative Cardiss Collins (D-Ill.) and co-sponsored by fourteen other members of the House, including House Majority Leader Richard Gephardt (D-Mo.), proposes changes to key provisions of the Exon-Florio Amendment with the intent of strengthening its enforcement.

Foreign Direct Investment, RAPID PRESS RELEASE, Feb. 18, 1992. Despite the recent focus on Japanese investment, the European Community, not Japan, is the largest overseas investor in the United States. As of the end of 1990, the EC held $229.9 billion in direct investments in the United States. The three largest direct investors are the United Kingdom, holding $108.1 billion, Japan with $83.5 billion, and the Netherlands, with $64 billion. U.S. DEP'T OF COM., SURVEY OF CURRENT BUSINESS 54 (Aug. 1991).


10. Key provisions of the bill which would strengthen enforcement are: 1) chairmanship of the Committee on Foreign Investment in the United States (CFIUS) would be transferred to the Commerce Department, see discussion infra at notes 42-46 and accompanying text; 2) the Departments of Commerce and Defense would be required to collect, analyze, and present information on proposed mergers and acquisitions to the CFIUS; 3) the Assistant to the President for Science and Technology would make a recommendation to the President regarding the acquisition's impact on the national security; 4) the President would have direct authority to order the "unwinding" of transactions as opposed to ordering divestment, thus possibly requiring the seller of an affected firm to repurchase the firm from the buyer; 5) the President would be required to
As it currently stands, Exon-Florio is a powerful and not yet fully tested weapon which, put to the wrong use, could deprive the U.S. defense industry of exactly the vital commodities the bill was designed to protect. As amended by the Technology Preservation Act, Exon-Florio could become a powerful disincentive to foreign investment in any U.S. industry having national defense implications.

Some have argued that the president should block transactions that relate to so-called dual-use technologies—technologies which have both military and civilian uses, e.g., computer microchips or civil aviation technology. Their argument is ostensibly based on the idea that the core of a strong national defense is a strong national economy, but when examined critically, their argument is reduced to the assumption that if protection of any defense industry is good, protection of all defense industries is good. This Note will argue that such a use of the Exon-Florio Amendment would actually damage the national security, and that in attempting to protect the national security the president should follow the prudent warning of the Hippocratic oath: Above all, do no harm.


12. David Tirr, a high-ranking European Community official, explained the EC's position on this subject in a recent press briefing. He said that the ambiguity surrounding the application of Exon-Florio, particularly with regard to its failure to define national security and its lack of a statute of limitations, has "provoked a great deal of uncertainty" for companies investing in the United States. EC Complains of Uncertainty Associated with Exon-Florio, Int'l Trade Daily (BNA) (Feb. 19, 1992).


15. The relevant text of the Hippocratic Oath reads: I will apply dietetic measures for the benefit of the sick according to my ability and judgement; I will keep them from harm and injustice. I will neither give a deadly drug to anybody if asked for it, nor will I make a suggestion to this effect. Similarly, I will not give to a woman an abortive remedy. In purity and holiness I will guard my life and my art. VINCENT BARRY, MORAL ASPECTS OF HEALTH CARE 500 (1982). Similarly, an oath formulated by Florence Nightingale pledges: "I will absten from whatever is deleterious and mischie-
enforcement of the Exon-Florio Amendment, or by passage of the Technology Preservation Act, is that the domestic industries meant to be protected will actually be put at a competitive disadvantage and eventually lose to overseas competitors.

The mechanism by which this harm would occur is as follows: dual-use technologies, by definition, are freely traded in the open market and thus are subject to market forces in a way that strictly military technologies are not. In the open market, capital flows to its most productive uses, and therefore the most productive firms can and will attract foreign investors. If these investors are unable to invest in industries located within the United States, they may invest in the same industries overseas. This would weaken the United States’ defense industrial base by subjecting the domestic firms in question to more, not less, competition while putting the same firms at a competitive disadvantage in the capital marketplace.16 The winners in such a competition would be the firms not hampered by this artificial impediment—the overseas firms. The result would be the loss of physical as well as financial control over these critical defense industries.

In support of this proposition, this Note will first examine the legislative history and executive enforcement of the Exon-Florio Amendment, followed by a discussion of the goals of Exon-Florio and the applicability of Exon-Florio to dual-use technologies. Then, after an examination of the attitudes and experience of the European Community with regards to such protectionism, specifically in France and the United Kingdom,17 this Note will argue that vigorous enforcement of

16. This would occur, either by increasing the cost of capital, or by potentially eliminating the availability of capital altogether. Individual firms, as “buyers” in the capital market, have little market power. They take capital at the prevailing price, which is the interest rate (adjusted appropriately for risk). If a firm is unable to find a domestic supplier of capital at the going rate, and is simultaneously excluded from “purchasing” capital from foreign sources, the firm may have no choice but to “purchase” capital at a higher rate, or go without. Either choice will put the firm at a competitive disadvantage in the product market by increasing its cost of goods sold, either due to increased debt service payments, or due to inefficient production techniques which the firm is unable to change without a capital infusion. See generally Benjamin M. Friedman, Savings, Investment, and Government Deficits in the 1980s, in U.S. COMPETITIVENESS IN THE WORLD ECONOMY (Bruce R. Scott & George C. Lodge eds., 1985); Report of the President’s Commission on Industrial Competitiveness: Hearings Before the Subcomm. on Econ. Stabilization of the House Comm. on Banking and Finance and Urban Affairs, 99th Cong., 1st Sess. 91 (1985).

17. Dissenting from the proposed legislation on the grounds that it is not strong enough, Representative Dennis E. Eckart cited Britain, France, Germany, Japan, and South Korea as countries which control foreign investment on the grounds of national security. H.R. REP. NO. 399(I), supra note 10, at 28.
the Exon-Florio Amendment, and *a fortiori* passage of the Technology Preservation Act, is likely to result in less, not more, domestic production of dual-use technologies. As a matter of defense policy, the United States would be better off by allowing foreign ownership of dual-use industries and relying on its sovereign authority to nationalize those industries in time of war to ensure production if the situation so demands.

I. EXON-FLORIO: AN EXERCISE IN SPLIT GOVERNMENT

Students of political science often claim that the apparent lack of direction in U.S. politics at the national level is the result of a chronic split between Republican administrations and a Democratically controlled House and Senate.18 The division between Congress' protectionist sentiment in passing the Omnibus Trade and Competitiveness Act of 1988 and the Bush administration's lax enforcement of the Exon-Florio Amendment to that act serves as an illustration of that division.

A. Legislative History

The House Conference Report accompanying the Exon-Florio Amendment states that Congress' intent was limited to protecting the national security, and that discouraging foreign direct investment was not on their agenda.

The Conferees in no way intend to impose barriers to foreign investment. The Conferees intend for this section to affect only Inward Foreign Investment, i.e., overseas investment flowing into the United States. This section is not intended to authorize investigations on investments that could not result in foreign control of persons engaged in interstate commerce nor to have any effect on transactions which are outside the realm of national security.19

However, lying just below the surface of these eminently reasonable limitations were hints of Congress' true intent: a broad interpretation of national security, closely linked with economic security.

The standard of review in this section is "national security" . . . . The term "national security" is to be interpreted broadly without limitation to particular industries. . . . [Factors to be considered] include but are not


limited to domestic production needed for projected national defense requirements; the capability and capacity of domestic industries to meet national defense requirements . . . ; and the control of domestic industries . . . as it affects the capability and capacity of the United States to meet the requirements of national security.20

Thus Congress left a gap in the limitations they placed on the powers given the president under Exon-Florio. Subsequent events show that at least certain members of Congress were disappointed that the administration did not take advantage of that gap.21

To fully understand the congressional intent behind Exon-Florio, one must view it in the context of the events occurring immediately before the statute's enactment.22 The Exon-Florio Amendment was enacted in the wake of the proposed acquisition of Fairchild Semiconductor Corporation, a U.S. defense contractor,23 by Fujitsu, a Japanese corporation.24 An analysis of the political climate surrounding the Fairchild deal is useful to understand the current developments.

The furor that arose as the proposed Fairchild acquisition became public was remarkable.25 In fact, the deal never went through, even though the U.S. government did nothing official to stop it.26 In examining the political backdrop behind the Exon-Florio Amendment, it is instructive to note two things: first, while Fairchild was a U.S. corporation, it was a wholly-owned subsidiary of Schlumberger, a French corporation, and therefore not even domestically owned;27 second, Fujitsu was a Japanese corporation, and thus was not affiliated with a

---

20. Id. (Emphasis added).


24. It is no coincidence that a recent agreement between Taiwan Aerospace and McDonnell-Douglas to build a wide body airliner is adding to recent momentum towards strengthening the Exon-Florio amendment. McDonnell Douglas-Taiwan Deal Seen Reheating Debate on Technology Transfer, Agence France Presse, Nov. 20, 1991, available in LEXIS, Nexis Library, CURRNT File.


27. Trade War Victim, supra note 23.
country that posed any kind of military threat to the United States.\(^2\) Indeed, Japan is a country whose very constitution prohibits the making of war.\(^2\) Moreover, at the time of the proposed deal, Fairchild had very few Department of Defense (DOD) contracts left.\(^3\) The combination of Fairchild’s relative insignificance as a defense contractor and its prior status as foreign-owned demonstrates clearly that the true intent of Congress in enacting the Exon-Florio Amendment cannot have been solely the protection of national security, but rather included trade protectionism.

In 1987, as Exon-Florio was making its way through Capitol Hill, the White House lobbied strenuously for the deletion of language authorizing the president to block transactions which threaten to impair the national security or “essential commerce.”\(^3\) The White House prevailed on this point, and the phrase “essential commerce” was not included in the final version of the bill.\(^3\) Thus, the bill as passed represents a compromise between Congressional protectionist sentiments and the Reagan administration’s free trade policies.\(^3\) It is clear that Exon-Florio, as Congress would have liked it, was not truly the national security measure that it purported to be.\(^3\) The danger becomes clear as well: an administration politically driven toward protectionism, unlike the current one, whose political fortunes are better served

---


29. KENPÔ [Constitution] art. IX (Japan).


33. See generally Soseman, supra note 22. The debate over the Technology Preservation Act is taking on a similar tone. The Bush Administration so far is opposing the bill, and may even threaten a veto if the bill is passed. Special Report: Foreign Investment, 9 Int’l Trade Rep. (BNA) 92 (Jan. 8, 1992).

34. Contrary to language in the House Report to the effect that Congress “in no way intended to impose barriers to foreign investment.” OMNIBUS TRADE AND COMPETITIVENESS ACT OF 1988 CONFERENCE REPORT, supra note 19.
by a commitment to free trade, might use Exon-Florio to implement the language that the Reagan White House successfully lobbied out of the statute. Robert Gilpin’s statement about the “national interest” is equally true of “national security”—“[a]s for the concept of ‘national interest,’ the national interest of a given nation-state is, of course, what its political and economic elite determines it to be.” The definition of national security, like any policy choice, is determined by the political and economic elite. If the elite chooses to define national security as the protection of domestic industries, then that is the definition that will stand, for better, or as this Note will argue, for worse.

B. Implementation of Exon-Florio

In enacting the Exon-Florio Amendment, Congress intentionally left national security undefined. In fact, they encouraged a broad interpretation of the term. Responsibility for implementing Exon-Florio is delegated to an inter-agency body known as the Committee on Foreign Investment in the U.S. (CFIUS). The CFIUS is currently headed by Stephen J. Canner, Director of the Office of Interna-

35. George Bush, Statement Released by the White House, Office of the Press Secretary, U.S. Dep’t of State Dispatch (Jan. 6, 1992).

I am today reaffirming the unequivocal and longstanding support of the United States for a policy of free and open foreign direct investment among all nations. . . . The United States, the world’s largest source and recipient of direct investment, has a major interest in fostering open investment climates. We are committed to our open investment policy in the United States, and we are aggressively seeking to open markets abroad.

Id.

In support of this assertion, the accompanying press release cited a number of U.S. initiatives in that regard, including the U.S. position on trade related investment measures in the Uruguay Round, the North American Free Trade Agreement, the Enterprise for the Americas Initiative, 16 Bilateral Investment Treaties between the United States and various third world countries, U.S. support for OECD study of multilateral investment guarantees, and the U.S. position in its Structural Impediments Initiative talks with Japan. Id. See also ECONOMIC REPORT OF THE PRESIDENT 261-62 (1991); ECONOMIC REPORT OF THE PRESIDENT 123-26 (1990). For a statement of the previous administration’s policy on foreign investment, see Ronald Reagan, Statement by the President on International Investment, U.S. Dep’t of State Dispatch (Sept. 9, 1983).


37. OMNIBUS TRADE AND COMPETITIVENESS ACT OF 1988 CONFERENCE REPORT, supra note 19. It is precisely this lack of definition that causes the European Community’s concern with the Exon-Florio Amendment. EC Complains of Uncertainty Associated with Exon-Florio, supra note 12.


tional Investment, Department of the Treasury.\textsuperscript{40} Other agencies represented include the Departments of State, Commerce, and Defense, as well as the Council of Economic Advisors, Office of Management and Budget, and the U.S. Trade Representative.\textsuperscript{41}

The implementation of Exon-Florio thus far has been truer to the White House's free trade policies than to Congress' protectionist intent.\textsuperscript{42} This perceived lack of enforcement has not been ignored by Congress. Indeed, Congress has attempted to remedy the situation both by proposing strengthening legislation,\textsuperscript{43} and by attempting to pressure members of the CFIUS into stricter enforcement.\textsuperscript{44} Arguments have been made that the membership, and particularly the chairmanship, of the CFIUS is the reason for its restrained implementation of Exon-Florio. Proponents of the Technology Preservation Act claim that the fact that the Department of the Treasury occupies the chair of the CFIUS creates a conflict of interest, due to the Treasury's responsibility to manage the debt of the U.S. government.\textsuperscript{45} The Departments of Commerce and Defense have no such conflict of interest. As a result, the Technology Preservation Act seeks to place primary responsibility for the implementation of Exon-Florio with these two departments.\textsuperscript{46}

The CFIUS recently issued final regulations with regard to its implementation of Exon-Florio.\textsuperscript{47} The regulations rely on a voluntary filing system, and compliance is anticipated because of the open-ended

\textsuperscript{40} Narrow Interpretation of Statute Hobbles Exon-Florio Reviews, Lawyers Told, 9 Int'l Trade Rep. (BNA) 325 (Feb. 19, 1992).


\textsuperscript{43} See discussion of the Technology Protection Amendment in Introduction, supra.

\textsuperscript{44} Foreign Investment: Administration Urged to Look into "Politicization" of Exon-Florio, supra note 21.

\textsuperscript{45} Narrow Interpretation of Statute Hobbles Exon-Florio Reviews, Lawyers Told, supra note 40.

\textsuperscript{46} The Technology Preservation Act would change membership in the CFIUS to the Secretaries of Commerce, Defense, Treasury, Energy, and State, the National Security Advisor, the U.S. Trade Representative, the Attorney General, and the Assistant to the president for Science and Technology, as well as any other temporary designees the president may appoint. H.R. 2624, 102d Cong., 1st Sess. (1991). The Secretary of Commerce would be the chairman. \textit{Id}.

\textsuperscript{47} 56 Fed. Reg. 58,774 (1991) (to be codified at 31 C.F.R. § 800). These regulations are similar in most respects to the original draft regulations, released in 54 Fed. Reg. 29,744 (1989). One provision changed is the formerly unlimited period during which the president could order divestiture. Under the final regulations, the president has unlimited authority to order divestiture based on circumstances contemporaneous with the transaction, but the CFIUS is limited to a three year period during which to initiate a review. 56 Fed. Reg. 58,784 (1991) (to be codified at 31 C.F.R. § 800.401(e)).
nature of the CFIUS' authority. The regulations include a provision which allows the president to retroactively order the undoing of any transaction of which the CFIUS was not notified that threatens to impair the national security. By implication, there is a "safe harbor" for all transactions of which it was notified and that it approved. Prudent corporate attorneys consider an Exon-Florio filing to be a necessary inconvenience for any transaction which could have any security implications. The only reasons not to file with the CFIUS are the time and cost involved, both of which appear to be minimal.

To date, there have been 677 voluntary filings with the CFIUS, only fifteen of which have resulted in complete investigations and only one of which has seen presidential action. President Bush invoked Exon-Florio to force the divestiture of an aircraft parts manufacturer by a purchasing agent of the People's Republic of China. This inaction by the CFIUS is mostly due to the Reagan and Bush administrations' commitment to free trade policies. Thus, while it is unlikely that transactions will be significantly affected by Exon-Florio under the current administration, precedent exists not only to block such transactions but to force the divestiture of an enterprise once acquired. There is no guarantee that future administrations will exercise

48. Exon-Florio gives firms the incentive to file voluntarily with the CFIUS by virtue of a "safe harbor" status for those firms who have filed and have been found not to constitute a risk. 56 Fed. Reg. 58,787 (1991) (to be codified at 31 C.F.R. § 800.601(b)(1)).
49. Id.
50. Most transactions which initiate an in-depth CFIUS review are restructured via negotiations with the CFIUS so that they satisfy any national security concerns which may exist. Congress Clears Legislation To Make Exon-Florio Permanent, 8 Int'l Trade Rep. (BNA) 1127 (Aug. 7, 1991).
52. Another, more speculative, reason could be that a firm was trying to "get away" with a transaction that it believes would be prohibited. While this possibility cannot be summarily dismissed, one might believe that if a foreign country were determined enough to attempt such a maneuver, then protection against such an operation is more appropriately left to the intelligence community than to the CFIUS, which is less institutionally competent in such matters.
53. Narrow Interpretation of Statute Hobbles Exon-Forio Reviews, Lawyers Told, supra note 40.
56. See supra note 35.
the same restraint,\textsuperscript{57} especially considering that findings of the president under Exon-Florio are not subject to judicial review.\textsuperscript{58}

II.\textsuperscript{59} ENSURING THE NATIONAL SECURITY

A. The Goals of Exon-Florio

One of the goals of the Exon-Florio Amendment was maintaining a domestic base of critical defense industries.\textsuperscript{59} Though unstated, the emphasis was clearly on domestic production of high technology military goods.\textsuperscript{60} This is consistent with historical ideas regarding the necessity of maintaining control over the industrial backbone of the war machine\textsuperscript{61} and is particularly significant given the recent triumph of U.S. military technology over Iraq\textsuperscript{62} and the credit given to the U.S. military in winning the Cold War.\textsuperscript{63} The threat is that allowing foreign corporations to control the manufacturers of military goods is likely to put the availability of these goods at risk during wartime.\textsuperscript{64}

The other goal articulated most frequently by supporters of the amendment was to prevent sensitive military technology from falling into the hands of our enemies. Exon-Florio is not the sole, nor even

\textsuperscript{57} This is the main concern of the European Community with regard to the Exon-Florio Amendment. David Tirr, a senior EC official, recently commented that "the U.S. administration has so far used the provision in a responsible way...[but] there is nothing in the law to prevent a future administration from using the provisions extensively." \textit{EC Complaints of Uncertainty Associated with Exon-Florio, supra note 12.} See Reece, supra note 54; Susan W. Liebeler, \textit{Yet Another Reason Not to Invest in the U.S.,} \textit{WALL ST. J.,} Aug. 30, 1989, at A10.


\textsuperscript{59} \textit{OMNIBUS TRADE AND COMPETITIVENESS ACT OF 1988 CONFERENCE REPORT,} supra note 19.

\textsuperscript{60} Twenty-nine representatives wrote a letter to President Bush urging action in one of the first transactions to come under Exon-Florio review. They said, "[a]t a time when the U.S. is lagging severely behind its competitors in its ability to produce computer chips, the virtual sell-off of the wafer industry will help seal the fate of our weakening high-technology infrastructure." \textit{Bush Clears Sale of Monsanto Wafer Unit To West German Firm Despite Congressional Opposition,} \textit{8 Int'l Trade Rep. (BNA)} 182 (Feb. 8, 1989).


\textsuperscript{63} Presidential Address Before a Joint Session of Congress on the State of the Union, \textit{28 WEEKLY COMP. PRES. DOC.} 170 (Feb. 3, 1992).

the primary, bulwark against such technology transfer. Other statutory provisions include the Export Administration Act,\(^6\) DOD Industrial Security Regulations,\(^6\) and the International Emergency Economic Powers Act.\(^6\) Exon-Florio, however, is the furthest reaching of these, and thus has the largest potential for abuse.\(^6\)

There are those who argue that national security broadly defined should include not only military, but also economic security.\(^0\) While some measure of economic security is essential to national security, when Members of Congress speak of economic security in the Exon-Florio context, they actually are talking about trade protectionism. Their interpretation of national security must fail. First, as a matter of linguistic integrity, "national security" has historically meant physical security defended by military measures.\(^6\) If Congress had intended to protect something other than "national security" as such, it should


\(^{69}\) The International Emergency Economic Powers Act is limited in that it requires the President to declare a national emergency. 50 U.S.C. §§ 1701-76 (1988). The Department of Defense regulations only apply to defense contractors acting as such, and thus would not apply to manufacturers of civilian technology such as micro-computers. DEPARTMENT OF DEFENSE, *INDUSTRIAL SECURITY MANUAL*, 5220.22-M, at 1 (1985). The Export Administration Act is the most general of these provisions, as it applies directly to a specified list of sensitive civilian technologies. 50 U.S.C. app. § 2403(b) (1988).

\(^{70}\) Both the original House and Senate amendments contained the term "essential commerce" as one of the criteria for initiating review. OMNIBUS TRADE AND COMPETITIVENESS ACT OF 1988 CONFERENCE REPORT, supra note 19, at 924-25. See also Jonathan P. Hicks, *The Takeover of American Industry*, N.Y. TIMES, May 28, 1989, § 3, at 1; Samuel Fromartz, *Law on Foreign Buyouts Assailed as a Potential Trade Weapon*, Reuter Bus. Rep., Dec. 12, 1989, available in LEXIS, Nexis Library, ALLWLD File. Most recently Jonathan J. Cowan, legislative assistant to Representative Mel Levine (D-CA) said that Levine would like to see the Technology Preservation Act expanded to include U.S. economic security. Narrow Interpretation of Statute Hobbles Exon-Florio Reviews, Lawyers Told, supra note 40.

have addressed the question directly. Second, even if one were to con-
cede that economic security were an appropriate goal of the Exon-
Florio Amendment, vigorous enforcement of the amendment would be
inimical to such economic security. In fact, the development of the
United States as an economic power has occurred to a large extent
because of, not in spite of, its openness to foreign investment.72 Mile-
estones in the course of U.S. history financed by foreign capital include
the Erie Canal and the Louisiana Purchase.73

Direct foreign investment holds many benefits for the United
States.74 To begin with, direct foreign investment creates jobs. Here,
it is critical to differentiate between direct investment and its counter-
part, portfolio investment. Direct investment is defined as investment
that results in a foreign "person" controlling a domestic enterprise.75
This includes both so-called "greenfield investments"76 and invest-
ment in existing concerns. The job creation function of "greenfield
investment" is obvious: a foreigner builds a new facility in the host
country and staffs it with domestic labor, resulting in new jobs. The
Technology Preservation Act specifically exempts "greenfield" invest-
ments from its purview.77

The job creation function of direct investment in existing enter-
prises is less clear. This function is better described as "preventing job
loss" than "job creation." One major requirement of a firm's contin-
ued existence is its ability to attract capital investment at a reasonable

72. See generally Reece, supra note 54, at 279, nn.20-26 (1990). For a discussion of the
openness of U.S. foreign investment policy, see GORDON & LEES, supra note 13, at 21-25 (1986).
73. David Boorstin, Foreign Investments in America, 2 EDITORIAL RES. REP. 563, 571
(1974). See also Douglass C. North, International Capital Flows and the Development of the
American West, 16 J. ECON. HIST. 493 (1956).
74. See ECONOMIC REPORT OF THE PRESIDENT (1991), supra note 35, at 258-61; EDWARD
M. GRAHAM & PAUL R. KRUGMAN, FOREIGN DIRECT INVESTMENT IN THE UNITED STATES
(1989); Jeffrey M. Schaefer & David G. Strongin, Why All the Fuss About Foreign Investment?,
32 CHALLENGE 31 (1989).
75. This definition is refined in the International Investment and Trade in Service Survey
Act, 22 U.S.C. § 3102(10) (1988), as "ownership or control, directly or indirectly, by one person
of 10 per centum or more of the voting securities of an incorporated business enterprise or an
equivalent interest in an unincorporated business enterprise." Id.
76. These investments are known as "greenfield" investments because the design of modern
manufacturing plants often requires a vast expanse of land in order to accommodate in-line pro-
duction facilities. Such vast expanses of land are often only available in rural areas, areas cur-
cently covered by "green fields." However, General Motors Corporation used a "greenfield"
plant design for its Detroit, Michigan "Poletown" plant, much to the chagrin of the residents
whose homes were converted into a "field" for that purpose. James Kelly, The Last Days of
Poletown; A Neighborhood Faces Doom and a New Auto Plant May Rise, TIME, Mar. 30, 1981, at
29; William Serrin, Detroit, G.M. and Court Act to Doom Neighborhood, N.Y. TIMES, Mar. 15,
1981, § 1, at 24.
77. Technology Preservation Act of 1991, supra note 10; H.R. REP. NO. 399(I), supra note
10. See also 56 Fed. Reg. 58,774 (1991) (To be codified at 31 C.F.R. § 800.301(b)(4), example 3
(exempting greenfield investments from the scope of Exon-Florio)).
price. If a firm is denied access to capital, it will not be able to invest in improving plants and equipment, will fall behind in its productive capacity, and will likely be overtaken in the competitive marketplace in the long run. Alternatively, if the supply of capital is restricted, the firm’s cost of capital will be significantly raised, and it will have to invest at a significantly increased cost with a similar result. Given the international nature of the capital market, categorizing capital as “foreign” or “domestic” is futile, because for all practical purposes all capital is international. Restricting the flow of international capital to domestic firms will hamper those firms in the competitive marketplace and induce predictably negative results. Therefore, saying that direct foreign investment in existing enterprises saves jobs merely states the corollary of the more straightforward idea that preventing access to international capital will lose jobs.

Direct foreign investment can also improve the host country’s balance of payments. Contrary to popular belief, under a floating exchange rate regime a country’s balance of payments is always exactly


Since World War II, the shift of industrial activity toward science based activities means that national competitiveness depends increasingly on technology, capital investment, and labor skills. Unlike natural resources, these manmade resources move readily across national boundaries.

79. An increase in the firm’s cost of capital would occur as a result of conventional market forces. Cutting a firm off from foreign sources of capital will have the effect of shifting the relevant supply (of capital) curve upward. The firm will therefore be forced to pay more for capital than comparably situated firms, all other things being equal. See generally Robert M. Giordano, Foreign Financing of the Federal Budget Deficit: Myths and Realities, in INTERNATIONAL CAPITAL MARKETS: NEW DIRECTIONS 115 (Surendra K. Kaushik ed., 1989) (discussing this effect with regards to the economy as a whole).

80. Under conventional economic analysis, assuming that the capital market is such that capital will be available to any firm, at a price, an increased cost of capital would be the more likely result. See generally PAUL A. SAMUELSON, ECONOMICS (11th ed. 1980). For example, in the Fujitsu-Fairchild case, another source of capital was found for $80 million less than Fujitsu’s offer. Walters & Rempel, Trade War Victim, supra note 23. However, in the MAMCO divesture, over a year went by before MAMCO was able to find another buyer. U.S. Buyer Found For Aircraft Parts Firm Ordered Divested After Exon-Florio Review, supra note 55. Presumably, some financially troubled firms could not have held out that long.


82. Id. In fact, one sixth of all U.S. capital investment in recent years has come from foreign sources. ECONOMIC REPORT OF THE PRESIDENT (1990), supra note 35, at 123.

83. But see GRAHAM & KRUGMAN, supra note 74, at 48. (arguing that employment is determined by supply of rather than demand for labor, and therefore foreign direct investment (FDI) has no net effect on U.S. employment. The authors claim that, assuming the U.S. economy is at or near the non-accelerating inflation rate of unemployment (NAIRU), the Federal Reserve Board would be obliged to offset any gains from FDI by tightening monetary policy to cool inflationary pressures).

84. For an economic discussion of this mechanism, see Richard H. Clarida, That Trade DeFi-
that—in balance. Just as a floating price clears the market for wheat, a floating exchange rate clears the market for currency.\textsuperscript{85} A country's international monetary flows are, however, broken down into segments, called accounts. When (primarily U.S.) politicians speak of the balance of payments, they are referring to what economists call the "current account," or "goods and services." Any imbalance in this account must be offset by an equivalent imbalance in the "capital account."\textsuperscript{86} The net result of this equation is that for all the dollars the United States sends abroad in exchange for imported goods, the countries of the world send an equivalent amount back in the form of foreign investment.\textsuperscript{87} To put it more succinctly, the United States gains the benefits of both inexpensive imports and investment dollars. The reality of the so-called trade deficit is much less pernicious than is commonly perceived.

Moreover, direct foreign investment spurs domestic competition. As foreign firms establish facilities in the host country, it is often in industries where there is currently little domestic competition. Thus, the current domestic monopoly or oligopoly is obliged to compete with the foreign firm, to the monopolist's detriment, but to society's advantage.\textsuperscript{88}

Finally, direct foreign investment can spur domestic investment by lowering interest rates.\textsuperscript{89} Domestic investment funds are traded in a market similar to any other commodity. The price is the prevailing interest rate. As foreign investment increases the supply of investment funds, the price of these funds drops. As the interest rate drops, firms become more likely to invest.\textsuperscript{90} And investment is the key sector of the economy for future economic growth, as well as job creation.\textsuperscript{91}

\textsuperscript{85} SAMUELSON, supra note 80, at 609-611.

\textsuperscript{86} However, when examined empirically these two accounts never match exactly. Thus, there exists a third account, "net errors and omissions," designed to balance the two. For detailed country-by-country statistics on balance of payments flows, see International Monetary Fund, \textit{Balance of Payments Statistics} (published monthly).

\textsuperscript{87} ECONOMIC REPORT OF THE PRESIDENT (1990), supra note 35, at 127.

\textsuperscript{88} WILLIAM J. ADAMS, RESTRUCTURING THE FRENCH ECONOMY 185-95 (1989).

\textsuperscript{89} Robert M. Giordano, supra note 79.

\textsuperscript{90} This inflow of foreign capital that has augmented domestic savings allowed the large budget deficits to co-exist with trendline real economic growth and substantially lower interest rates—a combination that probably would have been impossible if the U.S. economy were closed and such capital inflows did not exist.

\textsuperscript{91} U.S. DEPARTMENT OF COMMERCE, FOREIGN DIRECT INVESTMENT IN THE UNITED
Direct foreign investment not only creates its own jobs, but increases the likelihood of domestic investors creating jobs.

For all the benefits of direct investment,92 its survival in the political arena is far from assured.

Economic theory argues convincingly that free trade leads to the most efficient allocation of resources and maximises a country's economic welfare. Empirical research also shows that unilateral and bilateral tariff reductions yield significant welfare gains [and by analogy, so does an open foreign investment policy]. Reality, however, teaches us that tariffs (and other trade restrictions) are prevalent in all periods and countries, and that there is a continual danger of ever-increasing protectionism in the world.93

Features of the the United States that attract foreign investors include the size of the U.S. market and the political stability of the United States.94 Foreign direct investment in the United States is likely to continue to the extent that U.S. policies do not discourage such investment. The U.S. government must avoid such protectionism as the Exon-Florio Amendment permits, because the lost investment would far outweigh any political gains.95

B. Applying Exon-Florio to Dual-Use Technologies: The Futility

The ostensible purpose of Exon-Florio was to ensure an industrial base of critical defense industries.96 However, Exon-Florio is clearly ineffective in achieving this goal for dual-use industries. In order to

---

92. One further measure of the benefit to the U.S. economy of foreign investment is the lengths to which a local government will go to attract such foreign investment. See Andrew P. Laszlo, Note, A Survey of Techniques Employed by State and Local Governments for the Promotion of Foreign Direct Investment, 18 GEO. WASH. J. INT'L L. & ECON. 155 (1984); see also Richard B. McKenzie & Dwight R. Lee, Quicksilver Capital: How The Rapid Movement of Wealth Has Changed The World (1991) (discussing the competitive atmosphere facing local and national governments).


94. Graham & Krugman, supra note 74, at 27-44; Gordon & Lees, Foreign Multinational Investment in the United States, supra note 13, at 67; Schaeffer & Strongin, supra note 74, at 157.


96. One criticism of the CFIUS' handling of this task comes from a GAO report claiming that rather than examining acquisitions on a case by case basis, the CFIUS should do analysis by industry sectors to determine if acquisitions within that sector constitute a security threat. GAO, FOREIGN INVESTMENT: ANALYZING NATIONAL SECURITY CONCERNS 24-26 (Mar. 1990) (GAO/NSIAD-90-94).
see the futility of Exon-Florio with regard to dual-use technologies, however, one must first examine Exon-Florio's applicability to traditional defense industries.

What are the critical defense industries, and how have they changed over time? Traditionally, the industries most important to the defense establishment were heavy industries—steel, coal, and mass production factories capable of producing large quantities of tanks, rifles, and other relatively unsophisticated tools of war. In fact, World War II was, in part, fought over control of such critical defense industries in the Ruhr Valley and Lorraine regions on the border between France and Germany. The U.S. military-industrial complex was formed primarily during World War II and consisted of the same kind of heavy industry that existed in the disputed Ruhr Valley and Lorraine regions. Thus, when examined under the old model of national security, the intent of the Exon-Florio amendment seems prudent: national military might is predicated on the availability of the tools of war, and therefore Congress is justified in enacting legislation to protect the supply of these war materials.

In the modern context, however, this concept of national security is not so easily defended. The tools of war have changed from the blunt instruments used in World Wars I and II to the surgical instruments displayed in the Gulf War. The essential materials have changed from iron and steel to titanium and silicon wafer chips. While the U.S. defense industry has never had the ability to respond


98. Also of critical importance have been the raw materials to feed those industries. For a thoughtful analysis and historical survey, see RONNIE D. LIPSCUTZ, WHEN NATIONS CLASH: RAW MATERIALS, IDEOLOGY, AND FOREIGN POLICY (1989).


100. See CARL VON CLAUSEWITZ, ON WAR 10-11, 40-57 (J.J. Graham trans., 1956). Or, as former Under Secretary of Defense for Acquisition Robert Costello said, "You can't fight a war with pizza parlors." CENTER FOR STRATEGIC & INT'L STUDIES, supra note 64, at 3.

101. See Gugliotta, supra note 62, at A22.

102. In response to the advent of the semi-conductor as a critical defense technology, the U.S. government established SEMATECH, a consortium of high technology firms to ensure availability of these critical components. Evelyn Richards, Consortia & Competitiveness: Reviews Mixed: With Sematech Up For Renewal, Ventures' Success is Debated, WASH. POST, Dec. 15, 1991, at H1. However, not all agree Sematech has lived up to its lofty aspirations. Id. See also THE AIR FORCE ASSOCIATION & USNI MILITARY DATABASE, supra note 97, at 57-59.
immediately to emergency defense requirements, it now requires two or even three full years to produce one of the basic tools of the U.S. Armed Forces—the F-16 jet fighter.

Maintaining a viable U.S. defense industry in the modern era is at once both less and more important than ever. A viable domestic defense industry is less important, because military conflicts no longer provide enough lead time to engage in any pre-conflict production, and therefore it is current stock, not current production capacity, that is important to military success. At the same time, the U.S. defense industry is more important, because the military hardware now more than ever is outcome-determinative. When the outcome of a military conflict depends on the quality and immediate availability of military hardware, gambling on the goodwill of foreign suppliers is risky indeed. Moreover, when the United States depends on foreign suppliers for military technology, that same technology will necessarily be available to other purchasers. If the United States is to maintain its worldwide military superiority, it must maintain its military machine,
including its domestic defense industrial complex, in working order. This is one of the goals of the Exon-Florio Amendment.

Should this goal apply to products used both in the military sector and in the civilian sector? Examples of dual-use products range from such common everyday items as milk, bread, fuel, and clothing to more sophisticated products like microcomputers and the silicon chips that drive most of our modern weapon systems. Our national defense relies no less on food and clothing for our troops than on the sophisticated weapons of war, but the difficulties surrounding the availability of dual-use products are particularly significant with high technology products. The ubiquitous presence of dual-use technologies in the civilian market will alter the intended results of any policy the government implements regarding the supply of such products, whether or not policy makers recognize that impact.

With the Cold War's end and the diffusion of technical prowess among America's ostensible allies, national security has a more complex meaning, and the United States needs to come to terms with the contradictory role played in the commercial economy by the Pentagon. In a changing political and economic world, traditional policies are no longer tenable. They provide neither military nor economic security. In fact, they may undermine both.

In the end, the analysis of how best to meet our defense needs must conform to the realities of the marketplace. Protectionist policies like Exon-Florio interfere with the marketplace in such a way as to impede and possibly extinguish the very industries which they purport to protect.

In addition to maintaining U.S. defensive industrial capacity, another goal of Exon-Florio is to prevent the export of U.S. military

---

108. CENTER FOR STRATEGIC & INT'L STUDIES, supra note 64, at 9.
A 1989 "Critical Technologies Plan" published by the Department of Defense identified 22 technologies essential to future military security, but the technologies are also indicators of commercial strength. On the list: microelectronic circuits and their fabrications, gallium arsenide and other semiconductor compounds, software, parallel computer architectures, machine intelligence and robotics, computer simulation and modeling, integrated optics, and fiber optics.
Id. at 340.
110. Id. at 343-44.
111. As an example, see id. at 340.
So while the U.S. military incubated the [supercomputer] industry and depends on the survival of companies like Cray and Control Data, these companies are in no way captive contractors to government. Three-quarters of their sales are to nongovernment customers, and they are in the thick of global competition. Cray, for example, is a relatively small company, with some 5,000 employees and sales of about $750 million. Its three main Japanese competitors are Hitachi (sales, $50 billion), NEC (sales, $32 billion), and Fujitsu (sales, $18 billion)—each among the world's 50 largest industrial corporations.
Id. at 350-55.
technology. However, recent events in the former Soviet Union, resulting in the dissolution of our primary technologically advanced military rival, have arguably lessened the necessity of preventing such technology transfer.\textsuperscript{112} Moreover, other regimes exist to accomplish this end.\textsuperscript{113} Still, preventing technology transfer is one of the stated legislative goals of the Exon-Florio Amendment, and the statute is at least rationally related to the accomplishment of that goal.\textsuperscript{114}

Preventing the outflow of sensitive technology is a difficult task. Exon-Florio seeks to accomplish the task by keeping control over such technology in the hands of U.S. corporations, whose national loyalties would presumably outweigh the profit motive that might induce foreign nationals to leak sensitive military technology to nations posing a military threat to the United States.\textsuperscript{115} Whether this approach is generally wise, it has no bearing on the application of Exon-Florio to dual-use technologies.

Dual-use technologies, by their nature, are present in the public domain. While their inventors may patent them,\textsuperscript{116} and the government may place export controls upon them,\textsuperscript{117} there will be numerous physical examples of the technology available to any foreign operatives to spirit out of this country and take back home to “reverse engineer.”\textsuperscript{118} Admittedly, certain production technologies are not in the

\begin{footnotesize}

\footnotesize\textsuperscript{113} See discussion, \textit{supra} notes 65-69.


\footnotesize\textsuperscript{117} Export Control Act, 50 U.S.C. app. § 2405 (1988). Export controls, however, constitute a major structural impediment to the competitiveness of U.S. industry. The costs of this system are enormous. According to a 1987 blue-ribbon commission of the National Academy of Sciences, the lost business resulting from the export control system costs U.S. companies $9.3 billion a year. But the real price of export controls is certainly much higher. Because of the export control system, the United States is losing vast trade opportunities—in Eastern Europe and the developing world. Kuttner, \textit{supra} note 66, at 140.

\footnotesize\textsuperscript{118} “Reverse engineering” is the process of learning how to manufacture a product by a close examination of a physical specimen of the product or a technical manual for the product. The noted Walker spy ring, led by former Navy warrant officer John A. Walker, Jr., supplied the Soviets with the materials to reverse engineer highly sensitive cryptographic equipment. Walker
\end{footnotesize}
public domain, and it is much easier to use the blueprints than to reverse engineer a high technology item, but the point remains that if the technology were that sensitive, it would not be in the hands of U.S. consumers. Truly sensitive technology should and does remain in the classified files of U.S. citizens with national security clearances. Domestic control over producers of such technology would not effectively prevent the transfer of most dual-use technology; the technology is already widely available.

C. Applying Exon-Florio to Dual-Use Technologies: The Harm

If applying Exon-Florio to dual-use technologies were merely futile, there would be no cause for alarm. It would not be the first, nor the greatest, waste of taxpayer money. Strict enforcement of the Exon-Florio Amendment would discourage foreign direct investment in U.S. dual-use industries. This could in turn diminish the domestic dual-use industrial base, and with it U.S. competitiveness and domestic jobs. The domestic base of dual-use industries is most seriously threatened not by foreign investors buying up U.S. manufacturers, but by foreign (and U.S.) investors opening competing concerns overseas.

said: "Obviously you can't steal the equipment, so the next best thing would be to give them the technical manual. From the technical manual, you can build the equipment by a process of [reverse] engineering." Malone & Cran, supra note 115, at D1. Not only the Soviets engage in reverse engineering, however. The U.S. Department of Defense is using it as a weapon against its own contractors and high sole-source pricing. "Reverse Engineering" Effort May Save Pentagon $400 Million, CHI. TRIB., Sept. 22, 1988, at C28. Reverse engineering is also used by private industry, particularly in the area of computer chip technology. Business Technology: A New Coating Thwarts Chip Pirates, N.Y. TIMES, Nov. 8, 1989, at D9.


121. Cf. GILPIN, supra note 36, at 55. Gilpin's thesis is that foreign direct investment is good for the receiving economy. Speaking, ironically enough, of the dependence of foreign countries on U.S. direct investment, rather than U.S. dependence on foreign investment, he states "the periphery [receiving country] is dependent precisely because it gains . . . from integration with the core [investing country]. The severing of ties with the core would involve an unacceptable cost to the peripheral economy." Id. at 56.

122. One danger foreign competition presents to the U.S. defense base is the import of competing materials, which may not be reliable sources of critical defense related material. This is addressed by § 232 of the Trade Expansion Act of 1962, 19 U.S.C. § 1862 (1988), which allows restricting imports of certain products if the imports may constitute a threat to U.S. national security. For an exhaustive discussion of § 232, see Nance & Wasserman, supra note 71, at 927-51.
Dual-use technologies are not subject to the kind of market manipulation that the DOD engages in with strictly military applications. The DOD can and does choose its suppliers based on national origin, and thus can ensure a thriving market for those items of which it is the major, or sole, purchaser. Dual-use technologies, on the other hand, have no such guarantee. They have to compete in the wider civilian market, and must remain competitive to survive. In order to remain competitive a firm must attract capital investment. Without access to capital, a firm is likely to be overrun in the marketplace. This can happen in three ways: first, by not allowing the firm to replace and modernize obsolete plants and equipment; second, by raising the firm’s cost of capital, and thereby its overall cost structure; and third, by disallowing the competitive advantages of affiliation with a large multi-national enterprise, most notably the ability to weather a significant economic downturn.

124. Buy American Act, 41 U.S.C. § 10a-d, as amended by Pub. L. No. 100-418, Title VII, Aug. 23, 1988. (The Buy American Act was strengthened by part of the same Omnibus Trade Act of 1988 as the Exon-Florio Amendment.) The Buy American Act orders the DOD to purchase U.S.-made products, when available, even if the price is as much as fifty percent higher than an imported substitute. Thus, the DOD can ensure a market for any products it purchases, but only to the extent of its purchases. However, even that amount may not be enough given certain dual-use industries. Cray, a well known manufacturer of supercomputers, sells only 25% of its output to the government. One must question Cray’s ability to survive if it lost the remaining 75% of its business to overseas competitors. See Kuttner, supra note 66, at 140, 144-45.
125. Scott & Lodge, supra note 78, at 5.
This acquisition, involving a major U.S. supplier of certain semiconductor materials, underwent... CFIUS review... The U.S. firm was not a direct contractor to DOD, although it was a subcontractor on unclassified work. Alternative foreign or domestic suppliers were available, and there was no evidence the specific buyer would threaten national security. The U.S. firm needed capital to redesign equipment to remain competitive and continue research, and no other U.S. firms had shown interest in acquiring it. One CFIUS participant noted that, in his view, the case presented a choice between two undesirable alternatives: (1) foreign ownership, which could mean that fundamental science and technology would shift offshore; or (2) continued business difficulties for the U.S. firm, which would prevent it from aggressively pursuing the next generation of processing equipment.

127. Id. at 18.

Many industry analysts maintain that segments of the semiconductor industry have been “hollowed out” incrementally as a result not only of foreign acquisitions but also of U.S. firms’ difficulties in competing against foreign firms. These commercial competitive factors include superior foreign technologies and product quality, but they also reflect differing U.S. and foreign industry structures. For example, large vertically integrated Japanese conglomerates can better withstand the steep downturns in business cycles that are characteristic of this industry, because profits earned from consumer product sales can sustain the firms’ other operations.
The free flow of capital across national boundaries characterizes the nature of modern world financial markets.\textsuperscript{128} The effect of such capital flow on a firm is twofold: first, it creates an enlarged capital pool from which to draw capital for expansion and other financial needs; second, it allows the firm's competitors to do the same. Firms must compete with each other not only in the product market but in the capital market as well.\textsuperscript{129} Vigorous enforcement of the Exon-Florio Amendment would effectively eliminate all foreign investment funds from the pool available to domestic producers of dual-use technology products,\textsuperscript{130} and simultaneously force any foreign firms interested in entering the market for those products to enter as an overseas producer.\textsuperscript{131} Consequently, U.S. firms are simultaneously subjected to more competition and hampered in their ability to compete.

Finally, current business and technological conditions call one of the goals of the Exon-Florio Amendment into question: the threat of technology transfer. In the current global market, the United States does not necessarily rank first in technology or industrial practices. In fact, the United States stands to benefit from inward technology transfer, and perhaps even requires such technology transfer to ensure national security.

The unfortunate reality in the modern world is that the United States no longer has a monopoly of technology and limiting our concerns in this area to keeping the foreign companies from getting our secrets is inadequate. We have to get access to their leading edge technology that we need to maximize the protection of the United States.\textsuperscript{132}

Particularly in Japanese-U.S. joint ventures, the Japanese bring much more high technology to the table than their U.S. counterparts.\textsuperscript{133} The United States cannot afford to ignore the valuable technology currently resident in Japanese or other foreign multinational corporations.

\textit{Id.} at 18.

\textsuperscript{128} Cross, \textit{supra} note 81, at 93.

\textsuperscript{129} In fact, competition for international capital investment is so great that even governments compete by creating pro-business policies to attract private investment. \textsc{McKenzie & Lee, supra} note 92, at xi.

\textsuperscript{130} Reece, \textit{supra} note 54, at 279.

\textsuperscript{131} Liebeler, \textit{supra} note 57, at 1.


IV. EUROPEAN ATTITUDES

European attitudes towards foreign direct investment in defense industries result in part from the particular country's wartime experience. They are also affected by participation in the European Communities. Specifically, "[a] Council directive of June 24, 1988 lifts all restrictions on capital movements . . . creating what has been called a 'European Financial Area.'" This directive orders all EC Member States to harmonize their foreign investment laws and to abolish any legal restraints on foreign investment by other Member States. Furthermore, the directive also encourages general liberalization of foreign investment regulation.

A. France

France's military experience has led the French to realize the importance of an independent defense establishment. In 1870, the French lost the Alsace-Lorraine region, a major producer of iron ore, to Germany in the Franco-Prussian War. Following World War I, the Treaty of Versailles gave France control over the Alsace-Lorraine, as well as the contiguous Ruhr Valley region of Germany, a major industrial center. Shortly thereafter, the Germans recaptured both regions during World War II. These and France's other historical troubles with physical control over the machinery of war have led to a strong French belief in maintaining domestic defense capabilities. This attitude is reflected in France's general policy toward foreign investment, its industrial policy regarding domestic defense produc-


136. Id.

137. Id.


Foreign investments in France are subject to a significant amount of governmental intervention. The purpose of such intervention is not to systematically prohibit or limit the amount of foreign investment in France, but rather to control the nature and modalities thereof so as to encourage those investments which are beneficial to the French economy.
tion, and in the French statutory framework. For example, France has nationalized the production of one major dual-use product: computers. Groupe Bull, France's nationalized computer company, is also Europe's largest computer manufacturer. While both NEC, a Japanese company, and IBM now own approximately five percent each of Groupe Bull (which in turn owns Zenith Data Systems, until recently the major provider of microcomputers to the DOD), Groupe Bull's rhetoric preceding the actual sale was stridently nationalistic and did not welcome foreign investment. However, it is quite possible that without this continuing foreign investment, Groupe Bull, along with the rest of Europe's computer manufacturers, might go out of business.

B. The United Kingdom

The United Kingdom's experience with defense industrial production has focused more on economic policy. The United Kingdom has transformed its defense industrial establishment into both a large

Id. at 1-16.


General de Gaulle had a grand vision of France as a nuclear power that required huge investments in advanced technology and the maintenance of a national computer industry. Is it important to French industrialists that France be a leader in nuclear weapons today? I suggest that it's more important for French government and business to have ready access to the latest in computer technology.

Id.

143. Responsibility for carrying out France's direct investment policy is given to the Gouvernement, which issues decrees having the force of law. DOING BUSINESS IN FRANCE, § 3.02[1][a], p. 3-7. Foreign investment in France is subject to, inter alia, a prior authorization requirement, id. § 3.02[2][b], at 3-13, as well as exchange control regulation, id. § 3.02[3], at 3-24. Moreover, any individual, French citizen or not, must obtain prior authorization to produce or sell arms or other instruments of war. Id. § 9.06[2] at 9-54.3.

144. Although not necessarily for national security purposes. See id. § 1.03 at 1-8 to 1-11.


148. Levine, supra note 146, at 131. For a historical view of the relationship between Groupe Bull (then Machines Bull) with U.S. investors, see ALLAN W. JOHNSTONE, UNITED STATES DIRECT INVESTMENT IN FRANCE: AN INVESTIGATION OF THE FRENCH CHARGES (1965).


150. For a contrary view, see TREvor Taylor & Keith Hayward, The U.K. Defence Industrial Base xiv-xviii (1989). However, see id. at 7-41 for a lengthy discussion of the U.K. defense industry as an international economic competitor.
domestic industry and a source of foreign trade. As a result, British foreign investment policy can be viewed more accurately as a national economic policy than as a national defense policy.

Until 1979, the United Kingdom's primary legislative response to inward foreign investment was the Exchange Control Act. The Act required government approval for all financial transactions between residents and non-residents, as well as all transactions between non-residents in British territory. The major criteria for approval were twofold: first, the transaction must have given the appearance of a quid pro quo, that is, it must have been for fair consideration and must have made an "appropriate" contribution to foreign exchange reserves; second, the United Kingdom reserved the right to pass judgment on the "desirability" of the transaction. While these may seem daunting requirements,

[the Exchange Control Act and the surrounding criteria obviously reflect the official attitude toward inward investment. This is one of qualified welcome . . . . On the other hand, the criteria relating to the finance of the investment represent a determination not to lose one of its major advantages, namely the initial gain to foreign exchange reserves.]

Parliament repealed the Exchange Control Act in 1979. The only current governmental control over foreign investment in the United Kingdom is the Industry Act of 1975. This act gives the British government powers similar to those granted to the U.S. executive under the Exon-Florio Act, to block transactions that are considered harmful. One difference, however, is that the Industry Act allows the government to block transactions that are counter to the "interests of the United Kingdom," rather than those that "threaten the national security." To date, no transaction has been blocked under this statute. While the statutory basis for action has changed, the underly-

151. Among other products, the United Kingdom is renowned for its production of the AV-8B Harrier Jump Jet, a jet fighter aircraft which is capable of vertical take-offs and landings. Tom Biesiadny, V/STOL Gets A Lift, AEROSPACE AM., Sept. 1991, at 52. The United States Marine Corps is a major purchaser of the AV-8B. Marine Corps Receives First of 12 Preproduction AV-8B Fighter Aircraft, AVIATION WK. & SPACE TECH., Jan. 23, 1984, at 19.


154. Id. at 178.

155. Id. at 180.


158. CLIFFORD CHANCE, DOING BUSINESS IN THE UNITED KINGDOM, § 47.08[1][c], at 47-53 (1991). See also macLachlan & Mackesy, supra note 134, at 381-83.
ing policy remains the same: one of qualified welcome for foreign direct investment.

C. Comparison

When one compares the direct foreign investment policies of France and the United Kingdom, France's protectionist attitude has disadvantaged it in two ways: first, France, to an extent, foreclosed beneficial direct foreign investment; and second, the government had to capitulate on its tough protectionist stance thereby leaving the impression of inconsistency.

The United Kingdom, on the other hand, has maintained a flexible foreign investment policy, reserving its sovereign right to control foreign investment, while restraining the exercise of that right in favor of reaping the benefits of direct foreign investment. The United Kingdom's policies provide a model for a country seeking to cultivate a healthy industrial base.

V. Policy Prescription

This Note has shown that the net result of preventing foreign ownership of domestic producers of dual-use technology products is deleterious to these industries and to the economy as a whole. So what is the solution? What would happen if foreign ownership of dual-use technology producers were to become widespread, and the U.S. were to enter into an armed conflict which called for the productive capacity of those producers to support the war effort? Of course, the real answer is that the nature of modern armed conflict is such that if a country is not ready when it starts, it is likely to lose before it can get ready. Moreover, there is no credible evidence that foreign firms would fail to supply defense needs; indeed history has shown quite the opposite. U.S. affiliates of foreign firms behave much like their do-

159. SIMEON & ASSOCIATES, supra note 141, at 1-16 to 1-17.
160. Levine, supra note 146, at 131.
163. See GRAHAM & KRUGMAN, supra note 74, at 75-81. Graham and Krugman show that German affiliates of U.S. companies, specifically Ford, supplied the Third Reich during World War II; and that foreign firms from allied countries can actually help during times of war, as U.S.
mestic counterparts. But if a defense supply problem were to arise, one solution, drastic though it may seem, would be to nationalize the relevant industry. There is abundant world precedent for such an action, and the president has the explicit statutory authority to nationalize industries under the Defense Production Act of 1950.

Nowhere today is the right of a sovereign state to take private property seriously disputed. Through the entire political spectrum from communism to capitalism, there is general agreement that "a state has, as a matter of domestic jurisdiction, the power to take property in its control for securing the common good of the state."

Nationalizing industry is a drastic step, and the United States has a strong tradition against such nationalization. Moreover, nationalizing industry during wartime would be costly, in light of the U.S. commitment to the "Hull Doctrine" and the advent of the United Nations' Multilateral Investment Guarantee Agency

firms helped the United Kingdom during World War II. However, U.S. firms did purposely stall Japan's development of its oil industry in the period before World War II and, for non-defense reasons, declined to contribute to Germany's synthetic rubber production industry.

Graham and Krugman show that the only discernible difference between foreign and U.S. firms is that foreign firms, particularly Japanese firms, have a higher propensity to import. This does, however, raise concern over the foreign affiliates' ability to ensure a reliable supply of raw materials during wartime. See supra note 107.

Doubtless there would be other measures taken short of nationalization, including negotiations with the firm itself, diplomatic negotiations with the firm's country of origin, or even convincing a United States concern to purchase the foreign firm's U.S. subsidiary. This Note argues for nationalization as a solution of last resort.


TRUITT, supra note 167, at 18 (quoting BEN A. WORTLEY, EXPROPRIATION IN PUBLIC INTERNATIONAL LAW 23 (1959)).

For a general discussion of state constraints on expropriation, see Detlev F. Vagts, Foreign Investment Risk Reconsidered: The View From the 1980s, 2 FOREIGN INV. L.J. 1, 10-13 (1987).

See e.g., Youngstown Sheet & Tube Co. v. Sawyer, 343 U.S. 579 (1952).

The "Hull Doctrine," based on statements of Secretary of State John J. Hull regarding Mexican expropriation of U.S. assets in the 1870s, calls for "prompt, adequate and effective compensation" for state expropriation. See John A. Westbury, Compensation in Cases of Expropriation and Nationalization: Awards of the Iran-United States Claims Tribunal, 5 FOREIGN INV. L.J. 256, 258-68 (1990); Valerie H. Ruttenberg, The United States Bilateral Investment Treaty
This Note does not argue for the nationalization of defense industry in any but the most dire circumstances. In all but the most exceptional of circumstances a foreign owned, U.S.-based producer would continue to supply the DOD as requested. In any event, however, it is more advantageous from a military perspective to have a domestic producer that can be nationalized than to have lost all domestic producers during peacetime due to competition in the civilian market. As explained in detail above, this Note does argue that vigorous enforcement of the Exon-Florio Amendment, especially in the case of dual-use technologies, and \textit{a fortiori} passage and enforcement of the Technology Preservation Act, may reduce the number of domestic manufacturers of dual-use technologies.

\textbf{CONCLUSION}

Nationalizing industry does not sit well with the American psyche. Protectionism, on the other hand, has a long and proud tradition—one that has, however, resulted inevitably in thousands of lives lost abroad for every politician's election it has won at home. Just as political isolationism failed as a military strategy before World War II, economic isolationism is doomed to failure as a military strategy in the coming century. Perhaps the most eloquent argument against the use of Exon-
Florio is based on its ostensible purpose: national defense. The primary rationale for a strong national defense in the post-war era has been deterrence. However, the lessons of history teach us that peaceful engagement, including trade relations, is the best deterrent to military aggression. As Treasury Secretary Nicholas Brady noted, "This century has taught us two crucial lessons. First that isolationism and protectionism lead to war and deprivation. And second, that political engagement and open trade lead to peace and prosperity." The political message that the Exon-Florio Amendment sends to the world is this: free trade is all well and good, but when push comes to shove, the United States looks out for number one.

The EC is justified in its concern over calls for U.S. protectionism. The results of such protectionism would harm the EC, would harm the United States, would harm Japan, and would set a poor example for other countries who may perceive that they have something to gain from protectionism. The United States should listen to its own rhetoric on free trade, follow the lead of the United Kingdom in foregoing its sovereign right to regulate direct foreign investment, and heed the prudent warning of Hippocrates: Above all, do no harm.
