BOOK REVIEWS

TECHNOLOGY CONTROL, COMPETITION, AND NATIONAL SECURITY edited by Bernard L. Seward, Jr. (University Press of America, 1987)

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If one were to judge the value of a book strictly by the time lapse between the event covered and the book’s publication, one would be tempted to bypass Technology Control, Competition, and National Security, edited by Bernard L. Seward, Jr. The book is a collection of papers discussing the U.S. export control regime, focusing especially on the Export Administration Act ("EAA"). Amendments to the EAA went into effect July 1985, the papers were delivered at a conference at the University of Virginia in October 1985, and the book was not published until 1987. The book, however, remains timely.

As American industry increases its efforts to compete more effectively in the international market for high technology, it runs headlong into the U.S. export control regime. As the main statute for controlling exports, the EAA was originally designed in 1949 to control those exports which might have a military significance to adversaries. Since that time, the EAA has evolved to encompass not only national security considerations but also foreign policy concerns and supply shortages as well.

The EAA is designed to cover all goods and technology, and all persons involved in an export licensing regime. This approach allows the law to have as sweeping a jurisdictional base as possible while carving out exceptions in the form of general licenses for exports deemed not to require government approval. The system is administered by the Department of Commerce, with advice solicited from the Department of Defense ("DOD") on national security matters, and coordinated primarily with the Department of State on foreign policy concerns.

Because of its sweeping assertion of jurisdiction, the EAA has the potential to be a major irritant in trade relations between the United States and its allies. This is particularly true in the instance of export

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controls based on U.S. foreign policy objectives. The most notorious instance of extraterritorial application of the EAA was the United States' attempt to impede the construction of the Soviet gas pipeline to western Europe by withholding U.S. goods and technology. These controls were seen as a way to punish Soviet activities in Afghanistan and its role in the crackdown in Poland. In June 1982, the Department of Commerce promulgated regulations which sought to control not only exports of American companies but also deliveries of oil and gas equipment to the Soviet Union by foreign corporations or branches owned or controlled by American individuals. The Department also sought to control U.S. corporations and foreign corporations whose only connection with the pipeline was the production of goods under licensing agreements with U.S. companies.

When foreign corporations followed the policies and laws of their own governments and fulfilled the contracts, they became subject to enforcement actions by the U.S. Department of Commerce's International Trade Administration. The companies were placed under export denial orders denying them export privileges for all products coming from the United States simply for giving used U.S.-origin technical data and information. This total blackout effectively suspended all of these companies' business with the United States. Foreign companies, along with foreign governments, participated in a series of administrative and judicial actions challenging the denial orders. Later, the blackout was modified to restrict only U.S.-origin commodities or technical data relating to oil and gas production and exploration.

Finally, President Reagan lifted the export sanctions in November 1982. The United States, having taken an untenable position with its allies, was forced to back down. Not only were allies offended, but also U.S. businesses lost foreign sales because of the uncertainty engendered by the controls. In response to the disruptions created in domestic business by the sanctions, Congress amended the EAA in 1985 to shore up "contract sanctity", a concept badly trodden upon by the pipeline restrictions. The pipeline case remains a prime example of how the unilateral assertion of U.S. foreign policy through the EAA can create trade conflict between the United States and its allies.

In addition to the EAA and other less commonly used U.S. statutes, the United States also pursues export controls by means of the Coordinating Committee for Multilateral Export Controls ("CO-COM"), an international regime composed predominantly of the NATO allies plus Japan, under which the export of military or strategic goods is regulated to ensure the maintenance of national
security. Because items on the COCOM list are based on multilateral consensus, there is virtually no controversy regarding the necessity that their export be controlled. Nevertheless, the United States wishes to strengthen COCOM's role in controlling exports to the Eastern bloc. Indeed, given the internationalization of high technology, the United States now must go beyond the COCOM member states to promote controls among the newly industrialized nations.

The Seward book provides an excellent overview of the conflict between the necessity to control strategic goods and the desire of American companies to expand international sales. The book is divided into six sections: congressional views on technology controls and the EAA amendments; the views of executive branch agencies; industry's view of the amendments; the views of the United States allies; the legal aspects of export controls; and recommendations for the future.

The congressional section opens with comments by Rep. Don Bonker, the chairman of the House Subcommittee on International Economic Policy and Trade and the principal champion of the EAA amendments in the House. According to Rep. Bonker, export controls are driving high technology trade into the deficit column because excessive restrictions lead to lost foreign sales. Meanwhile, technology is reaching the Soviet Union even with the controls. Nevertheless, the EAA amendments do address some needed reforms: the decontrol of low technology and expedited processing of licenses for higher technology; the decontrol of embedded devices; and the opportunity to negotiate to resolve the denial of licenses if the same product is available from foreign suppliers. Bonker decries the fact that while Congress intended that the Commerce Department be the single agency to administer export controls, roles have been carved out for the Department of Defense, the State Department, and to a lesser extent the National Security Council, the Office of Management and Budget, and the Treasury Department. Indeed, DOD is taking on a bigger role in licensing review not only for developing countries but even for western nations, despite contrary congressional intent. To improve upon the EAA amendments, Rep. Bonker suggests greater interagency cooperation to allow U.S. industry to compete effectively as well as more consensus building among the allies to make export control laws more similar in scope and kind.

Paul Freedenburg, former staff director of the Senate Subcommittee on International Finance and Monetary Policy, presents the view from the Senate. He describes the congressional compromises on the scope of national security and foreign policy controls. By giving DOD
the right to participate in reviewing license applications for technology falling under national security controls, Freedenburg estimates that this participation will probably increase DOD review to 20,000 licenses per year. This burden will be offset in part, however, by the decontrol of low-tech exports to COCOM allies, which should reduce the number of licenses subject to review by ten to fifteen percent annually. As far as foreign policy controls are concerned, the amendments protect contract sanctity except when the strategic interests of the United States face a serious and direct threat. As an additional protection for businesses, Commerce must consult with Congress, other agencies, and industry when it imposes foreign policy controls.

The second part of the book, covering the views of the executive agencies, begins with an essay by James P. Moore, Jr., Deputy Assistant Secretary for Trade Information and Analysis at the Commerce Department. Unlike other contributors to the volume, Mr. Moore states that export controls have a minimal effect on U.S. competitiveness, despite lost sales due to foreign policy controls, licensing delays, and foreign availability. In his opinion the EAA amendments solved many of these problems by liberalizing the licensing process for COCOM members, ensuring contract sanctity, shortening license processing time, and providing more opportunity to consider foreign availability. Nevertheless, two problem areas remain, especially in the realm of policy. First the United States must face the issue of the internationalization of high technology and the loss of direct U.S. control over it. This concern is a subset of the broader issue of the growing internationalization of business with highly interdependent operations, which runs counter to the traditional approach of technology control by individual nations.

The next two papers in the volume are short, conclusory offerings from the DOD which fail to address the problem of interagency feuding or the DOD's increased activity in the area and the prospects for handling this increased workload. Talbot S. Lindstrom, Deputy Undersecretary for International Programs and Technology, presents an overview of the EAA amendments. John Konfala, director of strategic trade policy for DOD's office for international economic, trade and security policy, describes how DOD's "wish list" was met in the EAA amendments. According to Mr. Konfala, DOD has consolidated export licensing under one chain of command. It is also pursuing the modernization and tightening of the COCOM regime, and developing control arrangements with non-COCOM countries, especially in the areas of fiber optics, electronics, and machine tools.
Michael Marks, senior policy adviser to the Undersecretary for Security Assistance, Science and Technology, at the State Department, presents State's perspective on export controls. He describes the rise of the Soviet military during the 1970s using western technology gained through selective purchase, acquisition of production equipment and technology, intelligence gathering, and through information derived from commercial and emerging technologies not subject to controls. Marks relates the development of the Senior Interagency Group on Transfer of Strategic Technology, composed of eighteen U.S. agencies which try to coordinate their technology transfer activities. He also suggests that there must be improvements in COCOM enforcement, and in updating the COCOM lists, as well as increased levels of third-country controls in the COCOM mold.

The section concludes with a critique of the policy objectives of the Reagan administration. Lionel Olmer, former Undersecretary of Trade at the Department of Commerce, points out that the U.S. definition of technology subject to control is still broader than that of the rest of the world and the COCOM will be slow to adopt such a broad definition. Meanwhile, technology is spreading faster than the institutions and agreements can respond to control it. While licensing and enforcement have been improved at home, interagency wrangling continues and more technology probably could be decontrolled. According to Mr. Olmer, the EAA amendments assure U.S. businesses that they may no longer be whipsawed by ineffective unilateral controls like the Siberian pipeline debacle. On the international front, COCOM is also working better, but the allies fear that Washington's moves to formalize and strengthen the system are actually a way to improve the competitiveness of U.S. business. As the remaining problems, he sees the task of controlling know-how and products at an early enough stage to minimize disruption of trade. The efficiency of the system needs to be improved as well as making it responsive enough to keep up with the pace of technological change. He maintains that while it is fundamental to maintain U.S. and western technical pre-eminence, the U.S. government must realize that it is now the private sector, not the military, which is generating technological advance. So there is a direct connection between our ability to compete successfully in the international market and our national security.

If representatives of the executive branch are unsure of the magnitude of the impact of export controls on U.S. industry, the contributors to the third section of the book leave no room for speculation. Edward G. Law, director of export regulation at the IBM World
Trade Corporation, asserts that the biggest effect of export controls is not on U.S.-Soviet trade but on West-West trade because of the overbreadth of the control scheme. Controls ultimately are ineffective because of third-party availability. Also, he finds that there is no balancing between the risk of aiding adversaries and the cost of lost economic opportunities, nor is there a distinction between “critical” and merely “useful” technology. As suggested improvements, he proposes shortening the control list and improving definitions of technology subject to controls, replacing interagency feuding with a unified policy (developed with industry advice), more consideration of foreign availability, and less scrutiny of West-West trade.

Allen R. Frischkorn, Jr., GTE’s assistant vice-president for government relations, provides estimates of actual dollar losses attributable to export controls. According to his estimates, national security controls cost U.S. companies $7.6 billion in lost sales while foreign policy controls account for $3.5 billion. Mr. Frischkorn suggests that in the meantime the controls may actually stimulate the growth of an indigenous technology base in the Soviet Union.1 While citing improvements brought about by the EAA amendments, he points out room for more. He agrees with Mr. Law that the control list should be narrowed, that there should be less scrutiny of West/West trade, and that U.S. agency feuds hurt business. He proposes that the government study the cost of controls to the economy and determine if the control system really accomplishes what it sets out to do—namely keep technology from the Soviet Union. He calls for the decreased use of foreign policy controls, the acceleration of the licensing process, and greater reliance on internal control programs of companies.

David Danjczek, director of international operations for Litton Industries, attributes the decline of U.S. high-tech exports during 1981-1984 at least in part to the muddled situation of export controls. He proposes that the government distinguish between intangible technology controls and tangible hardware controls. According to Mr.

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1 Moreover, there are some who would argue that U.S. export control laws accomplish no useful purpose whatsoever, and in fact, have disadvantages from a national security standpoint. For example, by denying the Soviets certain products and technology, the U.S. encourages them to develop their own indigenous technology base. “This policy of creating incentives for the Soviets to teach themselves ‘how to fish’ could in the long run turn out to be more dangerous to U.S. interests than giving them the ‘fish’ outright.” B. Seward, Jr., Technology Control, Competition, and National Security (1987).
Danczuk, hardware which does not directly reveal technology should be controlled only if it is to be used for purposes directly threatening our security interests. Under this rubric, the United States should control only those technologies which are truly critical. He repeats Mr. Frischkorn's idea that denial of low-tech exports to the Soviet Union may be stimulating the growth of an indigenous technology base. Indeed, he points out that unlike the years following World War II, the United States no longer has a monopoly of technology. In terms of enforcement, this means that there is a whole world of technology outside U.S. control. Therefore, the U.S. export control regime must adapt to changed circumstances or it will continue to impede U.S. competitiveness abroad.

The Siberian pipeline controls may be gone but the views expressed by U.S. allies in the fourth section of the book leave no doubt that the impact of these foreign policy controls is far from forgotten. Dietrich von Kyaw, economic minister at the embassy of the Federal Republic of Germany, warns of the possible decoupling of technological development within the alliance. Even with the amendments to the EAA, it is unclear if the extraterritorial effect of U.S. controls has been altered. In his view, even with the provision ensuring contract sanctity, the complexity and vagueness of the U.S. export provisions lead to unpredictability in contracts and other legal matters. An additional irritant is the exclusion of allies from academic conferences considered to be "sensitive"—indicating a sort of mistrust of one's own allies. Finally, he suggests that export controls might be used to secure competitive advantage for U.S. businesses.

Thomas G. Harris, economic minister for the embassy of the United Kingdom, expands the discussion of the extraterritorial effect of export controls, no doubt because several British companies were the targets of the pipeline controls. According to Mr. Harris, the foreign policy controls violate the nationality principle of jurisdiction in going beyond regulating the conduct of U.S. nationals to regulate transactions of U.S.-controlled firms outside the territory of the United States. As an alternative, the territorial basis of jurisdiction should prevail. He also faults the United States for assigning "nationality" to goods and technology when there is no such principle as nationality of technology. Once the technology has left the United States, and if it is not subject to controls under the contract, assertion of controls is clearly an intrusion on sovereignty. Yet the EAA amendments failed to address these issues. He repeats Mr. von Kyaw's concerns about the unnecessary complexity of the system and the restriction of academic meetings. He also wonders whether the increased co-
operation needed in COCOM will require forced acquiescence to U.S. re-export controls. Anthony Burger, economic counselor at the Canadian embassy, describes the unique cooperative agreement between the United States and Canada which dates back to World War II. Canada applies U.S. export license criteria for re-exports in exchange for the export of most COCOM-controlled items entering Canada without a U.S. license. Nevertheless, there still is a problem with extraterritoriality because of extensive U.S. control of Canadian manufacturing.

Section five of the volume covers the legal issues of export controls, issues usually difficult to separate from policy, and often at the core of the controversy. The section begins with a short paper by Kathleen A. Buck, Assistant General Counsel for DOD. She indulges in a long introduction detailing the technology acquisition methods used by the Soviet Union, a topic better addressed by Appendix B which is an excerpt from a 1985 DOD report. She provides a short discussion of DOD policy on restriction of scientific papers and conferences, a paragraph describing the Reagan administration’s efforts to strengthen enforcement, and a brief overview of a 1984 change in the Freedom of Information Act which prevents circumvention of export control laws by means of FOIA requests. Unfortunately, her paper is too abbreviated to offer much depth or content.

The other paper in this section is by Taizo Yokoyama, commercial minister of the Japanese embassy. Japan’s export control structure differs from the U.S. model in that its Foreign Economic and Foreign Trade Control Law provides a general scheme for the control of all foreign trade. The FEFTCL provides control based on policy rather than statutes. Nevertheless, as a member of COCOM, Japan adheres to three principles governing arms exports: no exports to communist countries, no arms exports to countries under U.N. embargo, and no arms exports to a country involved in or likely to be involved in international conflict. While this policy covers arms en sensu strictu, Japan augments its arms export controls with policy guidelines covering exports of technology related to design, manufacture, or the employment of arms. It would be interesting to know how these guidelines have been altered following the revelation that a Toshiba subsidiary sold precision milling equipment to the Soviets. Mr. Yokoyama concludes with a description of the technology transfer arrangements under the Japan-U.S. Joint Military Technology Commission, a group designed to provide access for the United States to Japanese civilian technology applicable to military uses.
The concluding section offers ideas for building a policy consensus regarding export controls. Hylan B. Lyon, Texas Instruments' manager for government affairs, observes that export controls place too great an administrative burden on business, a burden that seems unjustifiable in view of the lack of military relevance of many items. As other authors have, he suggests shortening the licensing time to one week, paying more attention to foreign availability, and redefining what constitutes "critical technology."

Stephen A. Merrill, consultant to the National Academy of Sciences, provides an in-depth analysis of appropriate criteria to apply to determine what should be controlled and to what extent. He examines alternative approaches such as cost-benefit analysis, judicial review, review of the control list by statutory authorities, and wholesale reorganization of export controls, and cites the shortcomings of each. He proposes redefining the idea of "critical technology" and defining exactly what type of Soviet deficiencies the control system should address to protect the U.S. lead. He envisions a stronger element of multilateral policy with fewer restrictions on West-West trade to avoid the backlash triggered by U.S. unilateral restrictions. He prefers a panel to set export controls that would include industry representatives to foster the consideration of the administrative burden. As part of reducing the burden, interagency turf wars should be kept to a minimum. He would give more opportunity for certified compliance by means of company control programs.

Kempton B. Jenkins, vice-president for government and international affairs for ARMCO, begins with an historical review of the EAA. This review would have fit better at an earlier stage of the book. He also recommends building an international consensus and upgrading COMOC as well as providing for more input by U.S. industrial and agricultural interests in setting controls.

In the closing essay, Michael A. Daniels, president of the International Public Policy Corporation, presents a synthesis of the connections among three areas—national security, international competition, and technology control. He examines the political, economic, communications, and technological trends which must be reconciled to build a consensus on the proper role for export controls. Mr. Daniels cites a long list of issues which have been ignored due to the absence of any long-term strategy to reconcile the demands of these areas. As a solution, he recommends the re-creation of a presidential council, including both government and industry representatives, to set national policy.
The recently passed Omnibus Trade Bill addressed some of the problems brought out in this book. The bill eliminates the need for export licenses for products shipped to COCOM members judged to have effective export control systems of their own. It ends the requirement of re-export licenses for shipments of U.S.-origin goods among COCOM members and, with some exceptions, for U.S. parts and components incorporated into foreign-made goods when the U.S. content is twenty-five percent or less. For exports which currently do not require multilateral approval, the bill de-lists goods destined for the People's Republic of China and non-Soviet-bloc countries. In most cases, the bill ends the imposition of unilateral national security controls by the United States. And in a response to domestic turf wars, the bill calls for the clarification of the role of DOD in reviewing license applications. Clearly these are major steps in the right direction, but it remains to be seen if the exceptions incorporated in the Bill tend to swallow the rules.

The Seward book concludes with a brief bibliography, selected sections of the EAA amendments, and the DOD report mentioned earlier. If there is any shortcoming of the book, it is that it does not include the discussion among the participants in the conference. In view of the often diametrically opposed opinions offered by the contributors, one can only imagine the lively debate which must have occurred during the course of the conference. In spite of that omission, *Technology Control, Competition, and National Security* remains a valuable reference for students and practitioners who wish to review the policy judgments underlying the U.S. export control framework.