

# **Overview and Principal Findings**

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The established order of the Cold War period is being rapidly supplanted by new security and economic relations. There is much uncertainty regarding the future of NATO and the Warsaw Treaty Organization, the evolving political systems of Eastern Europe, internal political and nationalist struggles in the Soviet Union, German reunification, economic integration of Western Europe, and future superpower relations. What is certain is that **the reasons the United States collaborated with its allies in defense technology are not as valid as they once were, and U.S. policies on armaments cooperation, broadly conceived, must be reconsidered.**

The principal reason the United States transferred military technology to its allies, both in Europe and in Asia, was to build up their defense industries and military capacity for mutual defense against the Soviet Union and other communist powers. That policy succeeded. In the space of a few decades it contributed to the development of sophisticated centers of defense technology across Western Europe and in the Western Pacific. **The policy also led to significant peacetime overcapacity in the defense industries worldwide, and to intense international competition for sales of high-technology weapons.**

Superiority in military technology over potential adversaries has been the explicit foundation of U.S. national security policy for 40 years. Technological leadership over our allies has been implicit in that policy. That superiority is declining, in part because of our own efforts to assist our allies. **The loss of technological supremacy may be an unavoidable long-term cost of maintaining strong security alliances. It might also be the price of gaining access to foreign defense technology in the future.** Cooperation in defense technology is accelerating this process, and helping to undermine the

U.S. national security posture of designing and fielding defense systems at least a generation ahead of the competition. **However, the changing nature of the military threat makes this an appropriate time to reevaluate our basic national security strategies and goals.** Because the threat is changing, the character of our alliances is likely to change as well.

If tensions associated with trade and technology competition between the United States and Japan continue to escalate, **the traditional separation between economic affairs and the U.S.-Japan security relationship probably cannot be maintained.** This became evident in the controversy over the transfer of F-16 fighter technology to assist Japan in building its new fighter aircraft, the FSX. For the first time, military and trade issues were intertwined in an open, and sometimes acrimonious, public debate. It became clear in the course of this debate that the U.S. Government lacks a coordinated policy or institutional mechanism by which to address specific cases like the FSX, or to resolve general questions arising from armaments collaboration with its allies. The issue remains unresolved, and **it is probable that the FSX controversy will be revisited the next time a major codevelopment program is proposed with an ally.**

In Europe, maintaining cohesion within the NATO Alliance has always been a balancing act, even in the face of a common threat from the East. Achieving rationalization, standardization, and interoperability of Allied weapons has proved to be an elusive goal. Armaments cooperation among the NATO Allies should have political benefits as well, but as the Nunn amendment programs have demonstrated, involving many governments in codevelopment lowers the odds of a successful outcome. **As the perception of the Soviet threat to Western**

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<sup>1</sup>The Nunn-Roth-Warner amendment to the FY 1986 Defense Authorization Act authorized funding for NATO cooperative R&D programs, and has received an appropriation each fiscal year as follows: FY86, \$100 million; FY87, \$145 million; FY88, \$150 million; and ~->\$117 million. The results have been uneven, however, due to the difficulty in harmonizing military requirements and to the multiplication of regulation and administration.

**Europe diminishes, perhaps in consort with real conventional force (CFE) reductions now being negotiated in Vienna, the military, economic, and political interests of the United States and its European NATO Allies may diverge significantly.<sup>2</sup>**

Such divergence will be exacerbated by increased competition between the U.S. and European defense industries for shrinking defense funding. U.S. defense exporters look to European markets as a safety valve against anticipated steep declines in the U.S. defense budget, and European firms seek to penetrate the U.S. defense market, which is still by far the largest and most lucrative in the world. **International collaboration among defense companies appears to be increasing at a time when transatlantic intergovernmental cooperation in defense technology has become increasingly problematic.** Interdependence for the best defense technology is fast becoming a fact of life.

Concurrently, competition between U.S. and European defense companies will escalate as they seek to export sophisticated weaponry to maintain revenues and keep production facilities open in a declining market. As U.S. influence over European sales to the Third World decreases, differences in the political and economic interests of the United States and its NATO Allies will become more important. **It is possible, for example, that the United States will need to project power into regions and against countries that have been armed by the Europeans.<sup>3</sup>** In that case, the United States will have to design its weapons systems against European standards, and the question of what defense technology is transferred to Europe will become crucial.<sup>4</sup>

But here, as elsewhere, the interests of the United States and its defense companies may differ in important respects. Large U.S. companies that can operate internationally are entering into strategic market alliances and other business arrangements with European and Asian firms, transferring U.S. technology and subcontracting with them for portions of U.S. weapons systems. **Although defense collaboration makes business sense for individual companies, it may ultimately create unacceptable dependence on foreign suppliers, erode parts of the U.S. defense industrial base, and undermine U.S. foreign policy goals such as non-proliferation of delivery vehicles for weapons of mass destructions**

To complicate matters, even though it does create interdependence, **international collaboration also gives DoD access to foreign defense technology that may be superior to that produced in the United States.** Extensive procurement from foreign suppliers, however, coupled with a failure to support U.S. sources, could damage domestic defense companies. But a policy that guaranteed domestic sourcing from particular companies (or for a specific technology) might, in time, degrade domestic capability because there would be no foreign competition and, therefore, less incentive to innovate and to make investments in R&D.

As defense industries restructure their operations in response to overcapacity and declining defense budgets, there will be a few winners and many losers. **The United States could end up with a defense industrial structure inadequate for the defense of the Nation.** It is also possible that the United States will not need anything approaching the level of defense industrial capacity that it has built up over the past

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<sup>2</sup>If economic integration in Europe proceeds smoothly, even in the event of accelerated German reunification, increasing trade competition between the Europeans and the United States may introduce additional complexities into the NATO equation.

<sup>3</sup>Many advanced European weapons systems have incorporated technologies initially developed or codeveloped by U.S. defense companies.

<sup>4</sup>This problem was demonstrated in the Persian Gulf when the U.S.S. *Stark* was struck by two French-made Exocet missiles.

<sup>5</sup>"At least 16 Third World nations now possess ballistic missiles. . . The United States has not transferred ballistic missiles to the Third World since 1974. The most recent and important source of missile technology for Third World missile programs is West European companies and individuals willing to sell technical and material assistance." U.S. Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers 1988*, June 1989, p. 17.

three decades. **The challenge will be to convert the defense industries to an appropriate peacetime posture and still retain the capacity to mobilize in a crisis.**

Any proposed policy changes on international collaboration will have to be sensitive to the different kinds of companies that supply equipment to the Department of Defense. Large prime contractor companies that build and integrate whole systems generally see increased internationalization as a positive business trend. Some argue that international corporate alliances create access to new markets and superior technology, and will ultimately produce greater efficiencies by driving less competitive suppliers out of business. Smaller subcontracting companies that depend on DoD for most of their business worry about losing sales to foreign

competition and about resulting damage to the U.S. defense industrial base. International dual-use technology producers may decide not to do business with the Defense Department if the rules and regulations are sufficiently onerous.

This OTA Special Report identifies and analyzes the principal issues related to international collaboration in defense technology, and provides some policy discussion. As an interim report, it does not include detailed policy options for congressional consideration; these will be included in the final report of the project in May 1991. **Additional findings on defense industry and technology are presented at the end of chapter 1, and the principal issues are discussed at the end of chapter 2.** Chapters 3-5 and appendices A-D provide background and analysis on which the findings are based.