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The Rise of Europe's Defense Industry

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Over the last decade, the European Union's major military powers have increasingly collaborated to build a more integrated and technologically advanced defense industry. In Germany, for example, the air force's modernization program includes the Eurofighter Typhoon ground attack combat aircraft, which is equipped with Taurus stand-off missiles for high-precision attack. In France, the A400M transport aircraft, the revamped Tiger attack helicopter, and the Scalp sea-launched land attack cruise missile are major components of the military's procurement program. And Britain's modernization program includes the Boxer armored utility vehicle, COBRA counter-battery radar system, and Storm Shadow air-to-surface missile. All of these weapons are being developed and produced in collaboration with other European defense companies. In some areas such as missiles, research and development occur almost exclusively at the European level through the transnational European firm MBDA. The European Union's establishment in 2004 of a European Defense Agency to coordinate procurement programs has further increased the prospect of an integrated European defense market.

Many American defense experts roll their eyes at the prospect of European military cooperation and consider it more fiction than fact. While some of this skepticism is justified, a substantial amount of quantitative and qualitative data shows that European defense firms are increasingly collaborating with each other rather than the United States. This is a striking development. Even more important is to understand why this development is occurring. As the chief executive officers of Europe's three largest defense firms—BAE Systems, EADS, and Thales—recently argued: "Industry in Europe is under enormous competitive pressure from the United States. With U.S. defense R&T investment running at around eight times that of Europe's fragmented total and with substantial growth in the Pentagon's vast procurement budget in a heavily protected national market, American industries are reaching new heights." They continue that intra-European defense consolidation is critical because European governments and industry do not "wish to see indigenous defense technology overtaken or dependence on foreign technologies become a necessity."[2]

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[2] Denis Ranque, Philippe Camus, Rainer Hertrich, and Mike Turner, "The New European Defense Agency : Getting Above the Clouds," June 24, 2004 (www.baesystems.com/newsroom/2004/jun/150604news1.htm).

In other words, America's globally dominant defense industry provides a strong rationale for European collaboration to compete globally and avoid dependence on the United States. The development of a European defense industry has important implications for the future of transatlantic defense cooperation. It will increase the competition with Europe in the global arms market. That competition in turn may also increase the likelihood that European firms will sell weapons, military-use systems, and technologies to countries such as China, where the United States and Europe have different strategic interests.

The Defense Industry During the Cold War

During the Cold War, most defense industrial cooperation was transatlantic rather than intra-European because of the need to compete with the USSR. The Soviet threat to Western Europe created an impetus for defense industrial collaboration within NATO. "West Berlin, which has frequently enough been subject to political pressure by the Soviet Union and her allies, is particularly vulnerable. It is under a permanent threat," noted Germany's 1970 *White Paper*. "The effectiveness of the Alliance is contingent upon the harmonization of military resources which, in turn, permits their coordinated employment in case of an emergency; national elements alone will not do."[3] Consequently, during the Cold War, European states and defense firms tended to collaborate with U.S. firms much more than they do today.

In 1949, NATO established a Military Production and Supply Board to coordinate production, standardization, and technical research in the weapons industry. After a number of modifications, this body became the Defense Production Committee in 1954 to supervise joint production programs and promote the standardization of weapons. In the late 1960s, NATO established the Conference of National Armaments Directors to promote transatlantic projects and exchange information on operational requirements and national equipment plans. As British Secretary of State for Defense Roy Mason argued in 1975, the advantage of transatlantic weapons collaboration was substantial because "the forces of NATO would … achieve standardization of equipment far more quickly and more cost effectively than by any other method."[4] Collaboration through NATO was important to balance Soviet power and improve military effectiveness in case of war with the Soviet Union. Examples of transatlantic collaboration included the Sky Flash/AIM-7 medium-range air-to-air missile, the Multiple Launch Rocket System, the ASRAAM short-range air-to-air missile, and the AV-8B Harrier attack and reconnaissance aircraft.

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[3] *White Paper 1970: The Security of the Federal Republic of Germany and the Development of the Federal Armed Forces* (Bonn: Federal Minister of Defence, 1970), pp. 20-21, 25.

[4] Roy Mason, "Setting British Defence Priorities," *Survival*, Vol. 17, No. 5, September/October 1975, pp. 221-222.

The Shift to European Collaboration

As Figure 1 illustrates, however, there has been a substantial increase in intra-European co-development and co-production weapons projects in the post-Cold War era. The percentage of intra-European projects increased from 42 percent and 43 percent in the 1970s and 1980s, respectively, to nearly 60 percent in the 1990s. In the post-Cold War era, European defense firms have been almost twice as likely to pursue co-production and co-development projects with each other as with U.S. firms, and over three times more likely than with defense firms from other regions.

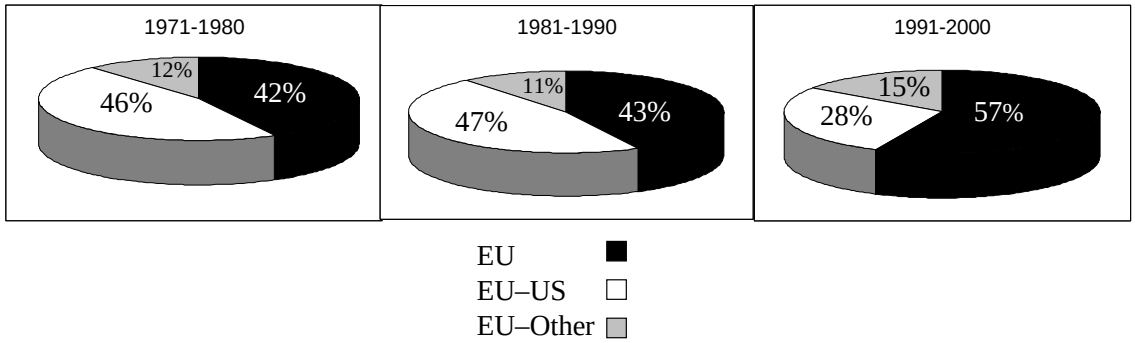

Figure 1: Transnational Codevelopment and Coproduction Projects

Why has this shift occurred? The evidence suggests that European governments have been motivated to collaborate as a response to U.S. dominance in the defense industry in the post-Cold War era. Collaboration allows European defense firms to compete more effectively with the United States in terms of arms sales and the spin-offs that defense industries can produce. As noted by John Rose, former chief executive of Rolls-Royce: "Competition for Europe's aerospace industry comes primarily from the U.S. The U.S. industry is roughly twice the size in terms of employment and turnover … The need to strengthen R&D efforts at a European level and to coordinate with national programs is quite simply, essential."[5] Political obstacles in the United States to transatlantic collaboration have added to this development. There has been a push in the U.S. for self-sufficiency and a deep reluctance to cooperate with foreign governments for much of American history, going as far back as Alexander Hamilton's *Report on the Subject of Manufactures*.[6] The United States has been largely autarkic in weapons procurement, relying on American defense firms for weapons procurement. Political obstacles to transatlantic cooperation have included the "Buy American Act" of 1933 (revised 1988), extensive export and

[5] John Rose, "New Structure, New Programmes, Bright Future," July 4, 1999, comment on the situation of the aerospace industry at the annual AECMA press conference (www.aecma.org/stats/speech).

[6] Hamilton argued that the United States needed to develop a strong domestic industrial base to avoid excessive reliance on foreign suppliers. Alexander Hamilton, "Report on the Subject of Manufacturers," in Harold C. Syrett, ed., *The Papers of Alexander Hamilton* (New York: Columbia University Press, 1966), pp. 230-341.

technology-transfer controls, and restrictive regulatory processes regarding foreign investment in U.S. firms. European difficulties in penetrating the U.S. market, with the partial exception of Britain's BAE Systems, have encouraged greater collaboration among European defense firms.

Production of the Galileo global navigation satellite system and the A400M strategic lift illustrate the point. European governments began development of the Galileo global navigation satellite system in the late 1990s. They could have continued relying on the U.S.'s global position system (GPS) for navigation, but they became increasingly concerned about the security of supply. "Only the USA (GPS) and Russia (Glonass) currently have this technology, both being financed for military purposes, with the result that the signals can be blocked or jammed at any moment to protect these countries' own interests," argues a European Commission's *White Paper*. "This happened during the Kosovo war, when the United States cut the GPS signal… Europe cannot afford to be totally dependent on third countries in such strategic areas."[7]

In addition, European governments have agreed to develop and produce the A400M strategic transport plane to facilitate the undertaking of European military operations, which can be performed autonomously of the United States. In the 1990s, European policymakers and defense firms initiated a study of alternative options for replacing their aging fleets of C-130 Hercules and C-160 Transall strategic transport planes. One possibility was to purchase Boeing C-17s and updated Lockheed Martin C-130s. But European military leaders didn't want to rely on the United States for security of supply. Consequently, the armaments directors of several European countries – including France, Germany, and Britain – began a series of feasibility studies to develop a European transport plane. Much like Galileo, there was a strong political and economic benefit to building the A400M: it provided European governments with airlift capabilities without having to rely on the United States, and it protected European security of supply. In June 2001, European armaments directors signed a memorandum of understanding to develop the A400M because "it generates the necessary potential for harmonizing operational and support arrangements" and "paves the way for greater task sharing in meeting European military air transport demands."[8]

The Race for Critical Mass

As Figure 2 highlights, there has been a substantial increase in intra-European defense mergers and acquisitions. This marked a stark contrast from the Cold War. The percentage of intra-European M&As increased from 43 percent in the 1980s to 55 percent in the 1990s. European defense firms were nearly twice as likely to pursue M&As with each other than with American

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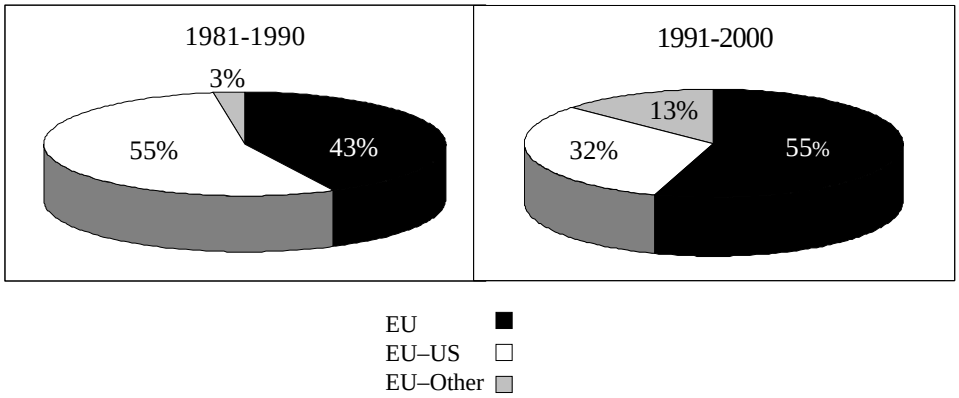
[7] *White Paper: European Transport Policy for 2010* (Luxembourg: Office for Official Publications of the European Communities, 2001), pp. 94-95. Also see *Inception Study to Support the Development of a Business Plan for the GALILEO Programme*, TREN/B5/23-2001 (Brussels: PricewaterhouseCoopers, 2001), p. 2; Gustav Lindstrom, *The Galileo Satellite System and Its Security Implications*, Occasional Papers No. 44 (Paris: European Union Institute for Security Studies, 2003).

[8] "Press Release for the Signature Ceremony of the A400M Program," June 19, 2001, Ministère de la défense de la France (www.defense.gouv.fr).

defense firms, and nearly three times as likely to pursue M&As with each other than with firms from other regions.

Figure 2: Transnational M&As Involving European Defense Firms



Why did this shift happen? Again, the evidence suggests that governments have been motivated to pursue intra-European M&As to create firms that can compete with U.S. firms in the global defense industry. The creation of EADS and MBDA illustrates the point. The establishment of EADS through the merger of France's Aerospatiale Matra, Spain's Construcciones Aeronáuticas, and Germany's DaimlerChrysler Aerospace was a significant step toward defense consolidation. It created a transnational European defense giant capable of competing with U.S. firms Boeing and Lockheed Martin and producing a variety of advanced armaments such as the Eurofighter combat aircraft, Eurocopter, and A400M transport aircraft. As EADS Joint Executive Chairmen Rainer Hertrich and Philippe Camus acknowledged: "Let us dare to assert it: EADS has, right at its birth, the scale of a European Boeing."[9] Moreover, French Defense Minister Alain Richard and Economy Minister Laurent Fabius jointly noted that the establishment of EADS "goes in line with the European policy promoting an autonomous defense industry that is globally competitive."[10]

The creation of MBDA as Europe's primary missile manufacturer was also a significant step toward consolidating European missile production under one roof and challenging the U.S. missile producer Raytheon. As former Chief Executive Fabrice Brégier has argued: "Raytheon is the world leader, and we respect that. But we believe we can challenge that position."[11] MBDA is the second-largest missile firm in the world behind Raytheon. It produces guided weapons for

[9] Rainer Hertrich and Philippe Camus, "EADS or the Ambition to Make Europe Win," *Le Monde*, June 8, 2000.

[10] "Europe to Create World No. 2 Missiles Firm," *Xinhua General News Service*, April 27, 2001.

[11] Daniel Michaels, "European Missile Firm Targets Raytheon," *Wall Street Journal*, August 1, 2000, p. A18. Also see "Interview, Fabrice Brégier: 'Nous avons cree l'Airbus des missiles,'" *Les Echos*, April 27, 2001, p. 14.

land-based, naval, and airborne requirements such as the Meteor and ASRAAM air-to-air missiles, Storm Shadow/Scalp long-range cruise missile, Brimstone anti-armor weapon, and Exocet anti-ship missile. A final development has been the creation in 2004 of a European Defense Agency to improve European military capabilities, consolidate defense research and technology, and promote armaments cooperation. It is not clear how the agency will develop over time. With a 2005 budget of €20 million and a staff of less than 100, it will have few resources and little power in the near future. It is managing several current initiatives:

- UAVs/ISTAR—Technology demonstration work on long endurance UAVs, in the context of development of a wider ISTAR architecture.
- Command, control, and communication—Work to find solutions to current ESDP operational shortfalls, and to develop capacity and interoperability for the future.
- Armored fighting vehicles—Based on review of future requirements and the relevant technological and industrial base, development of proposals for collaborative technology development and/or procurement programs.
- Commercial and military off-the-shelf equipment—Work to develop proposals for a European market in COTS/MOTS equipment, including feasibility study of an "electronic market place."

Implications for the United States

There has been deep skepticism in the United States about the viability of European defense cooperation. Some of this has been warranted. European states spend far less on defense than the United States, including in such areas as research and development programs. The defense spending gap between the United States and Europe has increased over the last several years from approximately $144 billion in 1999 to $267 billion in 2003 (using constant 2000 dollars).[12] Declining defense spending, combined with the increasing costs of weapons, means that individual European states have little hope of maintaining an autonomous and competitive defense industry.

In response, Europe is gradually establishing an integrated and globally competitive defense industry. Will this trend continue in the future? If so, what will be the implications on transatlantic relations? Assuming that the United States retains a globally competitive defense industry, EU states will have a strong impetus to continue collaborating with each other. Indeed, the European defense industry will likely become more integrated over the next decade. For example, European states will likely continue to develop all weather, precision-guided weapons, such as the Storm Shadow/Scalp cruise missile and the Taurus long-range stand-off missile. They will also likely place significant resources into space-based systems and technologies that will provide EU states with military capacities—such as monitoring troop movements, facilitating logistics planning, and improving targeting and munitions guidance—that can be

[12] SIPRI Military Expenditure Database (www.sipri.org). These figures are in U.S. $ millions at constant 2000 prices and exchange rates.

performed independently of the United States. Many of these projects are currently in the research and development stage and will provide European states a greater ability to jointly project power over the next decade. One of the biggest questions over the long run is whether European states can collaborate their procurement strategies through a robust and well-resourced European Defense Agency. This would mean that the European Union would have significant power to develop capabilities requirements; determine and promote defense research; and manage land, aerospace, and naval defense programs. The answer is not entirely clear, but recent trends suggest that Europe is moving in this direction.

The dominance of the United States in the defense industry and the European response will likely speed up a drifting apart of the transatlantic relationship. This does not mean the United States and Europe will become enemies, but it does mean that the stronger the EU becomes as a global international political, economic, and defense power, the more likely it will be willing to stand up to the United States when it disagrees. For example, the establishment of a globally competitive defense industry and a more independent Europe may increase the likelihood that European firms will sell military-use systems and technologies to countries such as China, where the U.S. and Europe have different strategic interests. These developments would cause transatlantic frictions to increase even further. As Jacques Chirac has argued: "We want to live in a multipolar world, one with a few large groups enjoying as harmonious relations as possible with each other, a world in which Europe, among others, will have its full place."[13] What is significant is not that a French president would like to see a multipolar international system and an integrated Europe. Rather, it is that European states more broadly are steadily making a globally-competitive defense industry a reality.

[13] Peter Ford, "Europe's Fears of US Domination," *Christian Science Monitor*, 14 March 2003, p. 6.