Introduction

Europe’s defense industry is at a crossroads. Pressures are building to continue the consolidation that began in the late 1990s, but which has stalled for half a decade. European firms now appear poised to take the next step in restructuring. However, the direction of the step and the manner in which it will be taken is uncertain, since the effects of the political dimension, which plays such an influential role in defense industry matters, are difficult to determine. At the same time, it is impossible to discuss Europe’s defense industry without considering changes that have taken place in the United States (US). In this article, we will review the current state of affairs within the European defense sector, and examine the options for firms and their governments.

1. The recent path

The end of the Cold War forced defense firms around the globe to adapt to a dramatically different operating environment. With defense spending plummeting in almost every country, defense companies had few options. They could: merge with or acquire other firms in the hope that economies of scale and scope would ensure their survival; find or develop new export markets; diversify into other sectors that were less dependent on government defense contracts; or go out of business, in effect, by selling themselves to the highest bidder. European and US defense firms pursued each of these strategies, but the timing, pace, and industrial structure varied considerably.

Europe’s defense industry began the 1990s as a collection of national defense fiefdoms. While the US defense industry was rapidly consolidating during the first half of the decade, most European firms continued to look inward. European consolidation at this time took the form of large national defense champions acquiring small domestic firms (a strategy pursued by Germany’s Daimler-Benz), or big companies acquiring targets in countries with minor

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defense industries (e.g., France’s Thomson-CSF purchasing the defense electronics business of the Dutch Philips). Transnational collaborations that did exist generally took the form of joint ventures (for products like missiles) or multinational consortia (like the Eurofighter) – both of which enabled defense firms to maintain their national independence. Large-scale cross-border mergers were hindered by the reluctance to see a domestic company acquired by a foreign firm. This concern was most evident in the political realm, as national governments worried about the loss of sovereignty and the political consequences of restructuring-induced job losses that might accompany such an acquisition. France’s *dirigisme* was (and remains) the most recognizable form of government involvement in the defense sector, but all European countries employed similar policies to some degree. Company executives were equally resistant to large-scale rationalization due to the uncertainty of what the industrial landscape would look like once these forces were unleashed. The status quo was the safest option for both government and business.

By the late 1990s, this situation became untenable. Given the consolidation in the US and the political impetus for a European Security and Defense Policy (ESDP) within the European Union (EU), European defense firms found themselves under political and economic pressure to consolidate. The first major consolidation occurred in the United Kingdom (UK) in January 1999, when GEC agreed to sell its defense arm (Marconi Electronic Systems) to British Aerospace. The new entity was renamed BAE Systems (BAE). Nine months later the most significant cross-border defense union to date occurred. The first step, as in the UK, was national consolidation. As part of its privatization in June 1999, France’s Aérospatiale joined with Matra to create an aerospace and defense electronics powerhouse. Four months later, this combined entity merged with Dasa to form European Aeronautic Defence and Space Company (EADS). CASA, Spain’s leading aerospace and defense firm, also merged into EADS.

Similar consolidation occurred in related sectors. In October 1997, the French government announced that it would privatize Thomson-CSF, and bring Dassault Electronique, the space and defense electronics businesses of Alcatel, and the satellite businesses of Aérospatiale within the company. Thomson-CSF acquired Racal Electronics of the UK in June 2000 and was renamed Thales. Two companies now account for Europe’s helicopter business: Eurocopter (a division of EADS) and AgustaWestland (which combined the helicopter interests within Italy and the UK). MBDA, the world’s second-largest maker of missiles (behind Raytheon), was formed in 2003 by merging the missile interests of EADS, BAE, and Italy’s Finmeccanica.

Table 1 shows that BAE now dominates Europe’s defense industry, while EADS has roughly half the defense revenues of BAE and Thales and Finmeccanica come in third and fourth respectively. As described above, the paths of these mergers appear to represent two different strategies of consolidation. BAE is the result of the consolidation of much of the UK’s national defense infrastructure into one company, without any major cross-border ties. EADS, on the other hand, was formed via a “merger of mergers,” thereby producing a company that would be in a stronger position to negotiate transnational ventures. It is significant that the momentum to create EADS was driven not so much by national leaders, but by corporate executives who made a conscious and calculated decision to keep their respective national leaders uninformed of the plans, until the advanced stage of the

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negotiation. By such unusual discretion, political meddling in what was essentially a business decision was kept to a minimum – a situation that is rare in defense industry matters.

2. Pressures for change

Some 5-6 years later, new pressures have arisen that make the status quo untenable. These pressures are economic and political in nature, and originate in both Europe and the US.

2.1 Consolidating Europe’s Remaining Defense Sectors

While the bulk of Europe’s aerospace and defense electronics sectors has consolidated into BAE, EADS, and Thales, other sectors have not followed suit. These include principally land vehicles, naval shipyards, and aircraft engines. Europe has 20 naval shipbuilders and 23 yards, while the US has only two companies making warships (Northrop Grumman and General Dynamics) and six yards. Despite the overcapacity in Europe, a result of less spending by governments on warships, consolidation has been exceedingly slow since the naval sector remains divided along national lines. Germany’s ThyssenKrupp acquired Howaldtswerke-Deutsche Werft (HDW), Germany’s biggest shipyard, in 2004 and was renamed ThyssenKrupp Marine Systems (TMS). In October 2004, the French government announced plans to privatize as much as 49 per cent of DCN, and began prodding Thales to merge its naval business with DCN. Such a union then would be in a stronger position to combine with TMS, which is now Europe’s largest shipyard group. This “EADS approach” to naval consolidation still has to overcome contentious issues over ownership and which shipyards (in France or Germany) are to be closed. Other shipbuilders in Italy and Spain also would need to be coaxed into joining a Franco-German shipbuilder. Consequently, the consolidation of the naval shipbuilding sector will likely take time, despite the clear economic logic of such a move.

Demand for military vehicles has dropped sharply since the end of the Cold War. The German military vehicles sector has shrunk from 44,000 workers in 1989 to just 10,000 in 2000, while France’s GIAT reduced its workforce from 17,000 in 1991 to 7,000 in 2001. Spending by the UK Ministry of Defense on combat vehicles dropped 70 per cent between 1990 and 2000. While the industry has responded to the decline in demand with employment reductions, there has been little in the way of company consolidation. In fact, the number of manufacturers of light tracked vehicles worldwide actually increased from 12 to 55 between 1993 and 2003. Consolidation has gone furthest in the UK, with BAE’s 2004 acquisition of Alvis Vickers (a company produced by Alvis’s acquisition of Vickers from Rolls-Royce in 2002 and of GKN in 1998) making it the only producer of military combat vehicles. In Germany, there are two main producers of land vehicles: Rheinmetall and KMW (the name

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given to Wegmann’s acquisition of Krauss-Maffei’s military operations. Finally, France’s state-owned GIAT is that country’s lone producer. While four land vehicles producers in three countries (and minor firms in other countries) may not seem too unreasonable, the US, which spends far more than Europe on these types of weapons systems, has only two companies: General Dynamics and United Defense. Thus, there is an economic logic for further consolidation within Europe.

Even in aerospace and electronics, there are indications that further consolidation is possible. The French government has made it clear that it would like to see parts of Thales, of which it owns 31 percent, merged with EADS. While there is some economic logic to this, since electronics is among the most sophisticated and high margin components of aircraft, the primary impetus (as well as obstacle) is political. An EADS-Thales union would concentrate most of the French defense industry into one firm. Ideally for the government, this would occur after (or in conjunction with) some consolidation in the shipbuilding sector with Thales, as mentioned above, combining with DCN and perhaps other European naval builders. But such a union would disrupt the delicate balance between French and German industrial interests that is EADS. EADS is owned by Daimler-Chrysler (30 per cent), the Lagardère media group (15 percent), the French government (30 per cent), and the Spanish state holding company SEPI (5.5 percent). Although the remaining 34 percent of EADS shares are traded on the Paris, Frankfurt, and Madrid stock exchanges, the French and German governments dominate the strategic decision-making of the firm. Such sharing of interests is perhaps most clearly demonstrated with the need for two board chairmen and two chief executive officers – one French and one German for each post – with similar allocations among senior executives. Although not the most efficient of structures, it is but the most visible example of the delicate balancing of national interests. Thus, it is clear that a merger of Thales with EADS would tip the balance very clearly toward the French – a move that makes the Germans very uncomfortable and to date opposed to such an arrangement.

2.2 European Political Pressures

Only the US among the major transatlantic powers has returned to Cold War levels of defense spending. While most European countries cut their defense spending by a smaller percentage than the US between 1989 and 1999, few have increased spending by any significant amount in response to recent terrorist threats. As a result, between 1989 and 2003, US spending has declined by only one percent (in constant 2000 dollars), while in Europe budget cuts have been significant: 10 percent in France; 29 percent in Germany; and 21 percent in the UK.7 US weapons procurement, which already dwarfs European levels, is budgeted at $78 billion for fiscal 2006, and is projected to increase by 17 percent and 11 percent a year in 2007 and 2008.8

Despite defense budget cuts at the national level, the EU continues to move toward a common defense policy, although the significance and tangibility of agreements varies considerably.9 Progress toward an ESDP of any meaning will positively influence trans-

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European defense industry consolidation. Cooperation in weapons procurement will be a key test for the successful fusion of ESDP and defense industry consolidation. In 1998, France, the UK, Germany, and Italy signed an agreement giving a legal identity to the Joint European Armaments Organizations (commonly known by its French acronym – OCCAR). In October 2003, EU defense ministers backed ambitious plans to have their armed forces capable of working together by 2010.\textsuperscript{10} For the EU to have armed forces that were agile, flexible, deployable, and sustainable, member states would need to combine forces and focus on quality and increasing military spending. In 2004, EU foreign ministers approved the creation of the European Defense Agency (EDA), designed to improve Europe’s military capabilities and support its security and defense policies. The aim of the EDA is to help member states improve cooperation on R&D, develop defense capabilities, foster armaments cooperation, and coordinate Europe-wide purchasing and contracting of weapons systems. As in most of the EU’s defense-related initiatives, Britain and France played instrumental roles in establishing the EDA. For France, the EDA is a platform to create a European defense manufacturing base, supported by more spending on R&D and with contract preferences for European firms. In a sense, the EDA transfers France’s statist approach to business-government relations to the EU level. For Britain, the EDA is a forum less for industrial policy than for improving the military capabilities of member states. Unfortunately, this divergence in views may not be healthy for the EDA’s long-term viability.

European governments are showing a growing inclination to procure from European companies, which is upsetting some US defense firms that could often rely on steady sales to US allies. Airbus’s military subsidiary beat Boeing and Lockheed Martin to win a €20 billion contract to supply seven European countries with 180 new military transport aircraft – the A400M.\textsuperscript{11} Another test came in January 2004, when the UK opted to spend $23 billion on refueling aircraft from EADS.\textsuperscript{12} The 27-year contract was a major blow to Boeing, which has a near monopoly on tanker aircraft, and to BAE, which had teamed up with the US firm in the expectation that they would win the competition. The EADS-headed consortium included Rolls-Royce, which will manufacture the tankers’ engines, and Thales, which will produce much of the avionics in factories in Britain. The Airbus-led team, AirTanker, emphasized that its A330s are partly built in the UK and half of all new planes and 90 percent of conversions of the old aircraft used for their bid will be built in the UK. AirTanker claimed that 7,500 jobs would be added or sustained if their bid was picked, while Boeing’s team could claim just 5,000. With defense industry jobs in decline throughout Europe, a consortium’s willingness to create jobs in the buyer’s country seems to carry significant weight in the procurement process.

At the political level, then, European governments have a mixed record. On the one hand, they seem more willing to see Europe’s defense industry strengthen vis-à-vis US firms, but they are less committed to institutionalizing these goals within the EU. It is too early to say whether EDA will have a significant impact on Europe’s industrial base, but prior EU attempts in this area have been disappointing. Finally, the EU’s constitutional crisis will give few leaders the courage to push for a more formidable ESDP.

\textsuperscript{10} Dempsey, Judy: “EU Looking to Defence Harmony by 2010”, \textit{Financial Times}, 4-5 October 2003.
\textsuperscript{12} Odell, Mark; Spiegel, Peter and Daniel, Caroline: “Boeing to Lose out on $23bn Deal”, \textit{Financial Times}, 23 January 2003.
2.3 The Next Stage for US Defense Firms

With the end of the Cold War, the US defense budget was slashed from $422 billion in 1989 to $290 billion in 1999 (in constant 2000 dollars). Prodded by defense officials, the industry hastened to adjust. Layoffs by firms such as Northrop, Hughes, Lockheed, General Dynamics, Litton Industries, and TRW marked a spate of “downsizings” and acquisitions, culminating in the mergers of Lockheed and Martin Marietta, Boeing and McDonnell Douglas, and Raytheon and Hughes. A 2003 Pentagon report found that the 50 largest defense suppliers of the early 1980s had been transformed into the top five contractors.

US firms now dominate the global defense industry: seven of the top ten defense companies in the world are based in the US, including Lockheed Martin, Boeing, Northrop Grumman, Raytheon, General Dynamics, Honeywell, and Halliburton. The US defense industry consolidated quickly, but with the strong urging of the Pentagon. Most of the mergers occurred between 1993-1998. Since the late 1990s, major defense contractors have pursued three strategies: buying relatively small defense units from diversified US conglomerates (like General Motors and TRW); acquiring defense-related businesses outside of aerospace and electronics (such as information technology or shipbuilding); or expanding abroad by buying foreign defense firms. The first strategy has been just about exhausted at this point in time. The second strategy is likely to continue to be popular, especially in a post-9-11 world where the US government is spending considerable sums on Homeland Security, intelligence, and surveillance. It is the third strategy that is the most difficult to predict or pursue, especially since most of the smaller European defense firms now have been acquired by larger European or US companies. The next step for US firms would be to acquire or merge with large European companies – a much more significant development than the ad hoc alliances and collaborations that often arise with large multination weapons systems. However, the obstacles to this strategy are formidable.

3. Possible scenarios

3.1 Trans-European

There are few remaining opportunities for purely national consolidation strategies. With the aerospace, electronics, and missiles sectors each reduced to one or two firms, shipbuilding and land vehicles are the most likely candidates for further national consolidation. Yet even this would be but a prelude to trans-European deals. There is, of course, a chance that a highly dramatic deal may be made. Daimler-Chrysler, with its recent attempts to concentrate its attention on its automotive business, may choose to sell its 30 percent stake in EADS, although German tax laws effectively preclude it selling before 2007. Pressure from the German government might prevent such a move, since numerous aerospace jobs (many tied to the non-defense work that EADS does, especially Airbus) almost certainly would be lost as a result.

\[\text{SIPRI, op. cit.}\]


Despite the pressure coming from the French government to unite Thales and EADS, Thales has other options in Europe. One interesting possibility would be a union with Finmeccanica. While Thales chairman Denis Ranque has made clear his opposition to a deal with EADS, he has engaged in exploratory talks with the Italian defense firm. Finmeccanica is one of the few European defense firms that has strengthened significantly its defense business in recent years. It did so by unwinding joint ventures in which it was a partner and, in key areas like helicopters and avionics, buying out its partners’ interests. The moves have catapulted Finmeccanica to the rank of major players in Europe’s defense industry. A link with Thales would push the combined entity solidly into second place of European firms ranked by defense revenues – significantly ahead of EADS and not too far behind BAE.

3.2 Trans-Atlantic

In the case of both EADS and BAE, the Europeans have formed defense titans that can finally match their US counterparts. Given the virtually complete consolidation on the US side, and the largely stable situation among Europe’s aerospace and defense electronics companies, there is a strong economic argument that transatlantic ties should be the logical next step.

In aerospace, there is speculation that BAE may be interested in selling the 20 percent stake it holds in Airbus (EADS owns the remaining 80 percent) which is valued at approximately $4.6 billion. While EADS would be eager to acquire BAE’s stake, the British firm’s motivation would almost certainly be to focus more clearly on the US market. BAE’s strategy in the US began several years ago. One reason British Aerospace opted to merge with GEC rather than Dasa was to own Tracor, GEC’s largest subsidiary in the United States. The British are trusted with technology, specifically in their ability to prevent it falling into enemy hands by way of European defense contractors, and are allowed to buy into the US market, in a way that the French and Germans are not.

The US now accounts for 37 percent of BAE’s revenues, which is now a more important market than the UK. In March 2005, BAE agreed to buy the US combat vehicle and armaments manufacturer United Defense Industries for $4.1 billion. The largest acquisition in BAE’s history, financed in part by the sales of stakes in several European joint ventures (including those with Finmeccanica and Saab) worth about $1.9 billion, made the company’s US arm the fifth-largest defense firm in the US. Ironically, this deal came a year after BAE thwarted General Dynamics’ attempt to acquire the UK armored vehicle maker Alvis by offering a higher bid, thereby engineering a national rather than transatlantic consolidation in land vehicles.

While leery of more domestic mergers, some US officials (in both government and industry) have been quietly floating the idea of an Atlantic partnership. Such an Atlantic

merger would need to be supported by the White House, Congress, and the Pentagon, and would have to ensure the safety of key US technologies. Nevertheless, by expanding the geography of the market, the number of possible competitors is also simultaneously expanded, allowing firms to wring more savings out of consolidation while still allowing the benefits of competition. BAE and Northrop Grumman are two of the most frequently suggested targets for a transatlantic merger.

Despite the economic rationale for a transatlantic defense industrial base, political obstacles make such a market difficult to envision. Disagreements over the Iraq War, Galileo satellite system, and the EU arms embargo on China, combined with acrimonious trade disputes (particularly government support for Boeing and Airbus), have created a tense political environment that would make support for a transatlantic merger almost impossible. Additionally, in the post 9-11 “Global War on Terror” (GWOT) era, the Pentagon is shifting its spending priorities in ways that probably will not help European defense firms. With an emphasis on information technology, intelligence, surveillance, communications, and related technologies requiring high levels of security, foreign firms – even European ones – are at a competitive disadvantage for Pentagon contracts, even at the subcontractor level. The US Department of Homeland Security has a faster growing budget than the military defense budget, with investments expected to grow more than 10 percent each year until 2009. But most European firms will not be trusted to supply these needs. EADS has suggested that the company would consider opening production lines in the US, particularly if it were allowed to compete for major US defense contracts. But until there is evidence of this in Washington, production facilities will remain within their respective borders.

Political obstacles exist on the European side as well, particularly in areas like shipbuilding and land vehicles. Before being acquired by BAE, United Defense reportedly presented a takeover bid to Rheinmetall, while General Dynamics was interested in purchasing the 49 per cent stake in KMW held by Siemens. However, the German government opposes takeovers of German military vehicles producers by US companies. Additionally, the ownership structure of the military vehicles industry in Germany and France makes international acquisitions difficult. Two families hold controlling stakes in KMW and Rheinmetall, which serves to prohibit hostile takeovers and reduce the pressure for maximizing shareholder value. In France, state-ownership makes the acquisition of GIAT all but impossible. Only BAE is a serious player in transatlantic mergers in the land vehicles area, and it accomplished this with its acquisition of United Defense. With General Dynamics the only US-owned producer of land vehicles, it is unlikely that the Pentagon would permit the company’s takeover – even if there was a European company with whom such a merger would make strategic sense.

While outright transatlantic mergers may be difficult to pull off, more traditional collaborations on large weapons systems are still viable. While it has been long common for companies to team up when submitting bids, especially as a means to gain access to a market that for political reasons would otherwise be closed, transatlantic alliances contain their own set of problems. The most serious is technology transfer. The Pentagon does not trust many non-US defense firms with state-of-the-art technologies, fearing that such know-how may end up in the hands of enemies. Another problem with such collaborations is the demand by governments participating in such projects that companies in their countries should get a

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26 Baumann, op. cit.
certain proportion of the associated work. The eight countries partnering on the $244 billion F-35 fighter jet project are squabbling over the allocation of research and production work.\textsuperscript{27}

Despite these formidable obstacles, trans-Atlantic deals are more feasible now than in previous years. This is partly due to the small size of such acquisitions. For example, in 2003 two European producers of aircraft engines, FiatAvio and MTU Aero Engines, were acquired by US companies (The Carlyle Group and Kohlberg Kravis, respectively), and General Dynamics purchased the Austrian producer of military vehicles, Steyr Spezialfahrzeug.\textsuperscript{28} European acquisitions of US-based companies were primarily by British companies.\textsuperscript{29} Perhaps the most attractive European firm from the US perspective is BAE. General Dynamics, Boeing, and Lockheed Martin have all negotiated with BAE, but the deals fell apart when BAE refused to sell its profitable and fast-growing North American operations.\textsuperscript{30}

\section*{Conclusions}

Several factors will affect developments in Europe’s defense industry in the near term. The UK will play a pivotal role economically and politically. BAE sells more to the US government than any other non-US company, which would make it a valuable acquisition for a US defense contractor. Yet, while the US defense market is extremely important to BAE, so are the European defense and civilian markets. With the recent ascent of Airbus in the global aerospace industry, now surpassing Boeing in aircraft orders and production, it would be extremely awkward for a US defense company to become a part of the consortium as a result of acquiring BAE (unless, of course, BAE’s stake in Airbus was sold to EADS). Publicly, BAE claims that it is not interested in selling its North American business unit. Certainly, a US firm could make an offer that BAE could not reasonably refuse, but negotiations by Northrop Grumman and Boeing have yielded no results and the premium that BAE would demand is too costly for any US company at this time. In leading the Labour Party to its third consecutive electoral victory, Tony Blair has positioned himself as one of the two most influential UK prime ministers since the end of World War II. Internationally, Blair has tried to stake out a position midway between the US and Europe. He is more pro-EU than most of his predecessors, yet has maintained good relations with both Presidents Bill Clinton and George W. Bush. In military procurement, the UK purchases more from Thales than from any US defense firm, and uses the French company as a counterweight to its largest contractor – BAE Systems. Thus, a tilt in the political relationship toward Washington or his European counterparts could set the stage for the next step by Britain’s defense industry.

Secondly, the GWOT will affect defense industry restructuring in the types of products that defense firms will develop. Three of the top eleven US defense contractors (L-3 Communications, Science Applications International Corp., and Computer Sciences Corp.) are “non-traditional” defense firms, in the sense that they produce intelligence, surveillance, and communications products rather than planes, tanks, ships, or missiles. Also, as mentioned above, the budget for the Department of Homeland Security presents opportunities for these non-traditional companies, as well as for the likes of Lockheed Martin and Northrop Grumman. One consequence of this trend is that more traditional defense firms may seek to

acquire these recent additions to the list of top defense suppliers. Such acquisitions will almost certainly be among US firms or among European companies, since it is hard to imagine US officials approving European purchases of US firms while this sector is still regarded as important to nurture while conducting the GWOT.

Third, US-Europe relations, broadly defined, will determine whether more transatlantic deals are possible. The current state of US-Europe relations is not encouraging. While there have been some transatlantic acquisitions over the past years, BAE’s purchase of United Defense is the only one of any real significance. And although an industry panel appointed by the French defense ministry called for increased transatlantic partnerships with French industry as part of a strategy to maintain the sector’s competitiveness, Paris seems unwilling to take the first step.  

An improvement in relations between Washington, Paris, Berlin, and other European capitals is a prerequisite for further deals between US firms and continental Europe.

Fourth, changes in military equipment procurement could affect industrial developments. Clearly, the amounts spend by defense ministries will have an effect on the speed of restructuring. A second aspect of procurement changes is an emphasis on systems integration rather than weapons platforms. This trend started with the Pentagon, but has now been adopted by the Europeans, too. A company that can integrate systems that link ships, aircraft, tanks, and satellites into a seamless network will have an edge in winning contracts, as Thales has discovered. A third aspect of procurement is an even greater pressure to “buy domestic.” In the current political environment, it is hard to envision the Pentagon purchasing any significant amount of weapons systems from non-US suppliers (BAE excepted for reasons already discussed). The EU-15 countries have cut dramatically their purchases of US weapons in recent years. These countries bought $1.4 billion in arms from the United States in 2003, down from $3.5 billion in 2000. Central and Eastern European countries that joined the EU in 2004, particularly Poland, have a greater export potential for US defense companies. However, even this market may prove difficult if membership, and the obligations and policy harmonization that accompanies it, results in “New Europe” becoming more like “Old Europe.” At the same time, the share of the international arms market held by US firms has shrunk from 40.4 percent in 2000 to 28.5 percent in 2004 (see TABLE 2). Given the decline in European and global purchases of US-made weapons, the US government is going to be very reluctant to increase its spending on European-made equipment.

Fifth, within a decade it should be clear whether ESDP and other EU-initiated defense and defense industrial policies amount to anything substantial. It will be an immense challenge for an institution of 25 members to reach agreement on important foreign, security, and defense policy matters, let alone whether and how military force should be used. It will require a political will that the EU could not muster in the Iraq War to address many of the challenges in the medium-term future (GWOT, relations with Russia and China, and regional stability in North Africa and the Middle East, to name a few). The opportunities on the defense economics front appear more manageable, but by no means assured. One of the next big steps that the EU could take in achieving a truly single economic market would be to apply such liberalizing principles to the market for defense equipment. EU treaties currently

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exempt arms production and procurement from EU rules, such as antitrust and open procurement policies. While the EDA and OCCAR may go some way toward opening weapons procurement, treaty revisions would be the best way to forge a single market for defense-related material. The pursuit of such political and economic policies discussed here face huge obstacles from mostly large European countries (particularly France and the UK) that still cling to the notion that preserving an indigenous defense industry is essential for national security. In August 2005, the French government identified ten sectors, including defense, which would be protected from foreign bids.\textsuperscript{34} The government went so far as to reserve the right to bar foreign takeovers even of companies that had subsidiaries operating in these sectors, thereby extending government protection to a large swathe of firms. Until this concern is ameliorated by greater political integration, including an ESDP that the rest of the world takes seriously, countries like France, Germany, and the UK will continue to swim against the tide of market forces and corporate decision-making.

At the national level, key European governments remain relatively hostile to acquisitions by non-domestic (especially US) firms. For example, the German government opposes takeovers of German military vehicles producers by US companies.\textsuperscript{35} In France, partial ownership by the state and trusted shareholders (noyau dur) of defense companies makes acquisitions by firms virtually impossible. Consequently, such concerns – not only with a transatlantic dimension but a European one, too – will be difficult to overcome in the near-term.

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<th>EU RANK</th>
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<th>% OF REVENUE FROM DEFENSE</th>
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\textsuperscript{1} Figures are in US$ million. Currency conversions calculated using prevailing rates at the end of each firm’s fiscal year.

\textsuperscript{34} Hollinger, Peggy and George Parker: “France Lists Sectors to be Excluded from Foreign Bids”, Financial Times, 1 September 2005.


\textsuperscript{36} Figures derived from Defense News Top 100, in http://defensenews.com/content/features/2005chart1.html.

\textsuperscript{37} EADS is 30.2% owned by DaimlerChrysler (Germany), 30.2% by SOGEADE (a French holding company comprised of Lagardère and the French state), and 5.5% by SEPI (Spanish state holding company). Approximately 34% of EADS shares are held by the public. EADS is registered in the Netherlands.

\textsuperscript{38} Snecma and SAGEM (also of France) merged in 2005 to create Safran Group.

\textsuperscript{39} The US company L-3 Communications (ranked 13\textsuperscript{th} globally) proposed buying Titan in May 2005.

<table>
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<td>Russia</td>
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<td>5,655</td>
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<td>78</td>
<td>356</td>
<td>591</td>
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<td>432</td>
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<tr>
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<td>1,258</td>
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<tr>
<td>World Total</td>
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<td>16,618</td>
<td>15,692</td>
<td>17,178</td>
<td>19,162</td>
<td>84,490</td>
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<td>US % of Total</td>
<td>40.4%</td>
<td>30.6%</td>
<td>28.5%</td>
<td>26.4%</td>
<td>28.5%</td>
<td>30.7%</td>
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