The European Military-Industrial Complex: Addressing the Determinants of European Military-Industrial Capacity

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This paper attempts to discern the root causes of European military deficiencies by examining aspects of the European military-industrial complex (MIC) by hypothesizing that such deficiencies are caused by (1) an undersized defense industry and (2) exclusionary practices regarding foreign arms competition and trade. To this end, it outlines a contemporary model of the MIC that emphasizes the causal links between bureaucratic elements of the state, the defense industry, and the military. Based on this model, it uses regression analyses to test the above expectations using panel data from the United Kingdom, France, Germany, Italy, and Spain regarding defense spending and ratios of domestic procurement to foreign (specifically American) imports. The results of this analysis confirm that defense industry size correlates positively with military capacity. The effect of foreign arms dependency on military capacity, however, remains inconclusive.

Since emerging as one of the largest and wealthiest entities on the global stage, the European Union (EU) has become an active participant in international affairs. As such, the military capacity of the European Union is a critical component of the international strategic environment. Previous treatments of the subject have noted numerous gaps and deficiencies in capacity, but have addressed them only superficially. This analysis will attempt to discern the root causes of European military deficiencies by examining aspects of the European military-industrial complex (MIC).
In making its diagnosis, the remainder of this paper will be structured as follows: first, I will frame the problem in a current events context by highlighting military capacity deficiencies in the EU intervention in Chad. Second, I will briefly trace the development of EU foreign and defense policy since the end of the Cold War. Third, I will review the relevant literature on the military-industrial complex. Fourth, I will build on past conceptions of the MIC to construct my own model of the causal relationships between the MIC and military capacity. Fifth, I will discuss the methodology and data I used to test hypotheses about these relationships. Finally, I will interpret the results of my hypothesis tests and make policy prescriptions. These conclusions will assess the current trajectory of the EU’s defense policy as European foreign policy strives for greater international relevance.

**EUFOR Tchad/RCA: Misadventures in Africa**

The Central African nation of Chad is a classic example of the failures to which post-colonial states are prone. Like many of its neighbors, including Sudan to the east and the Central African Republic (CAR) to the south, Chad has been beset by ethnic strife, weak and corrupt leadership, periodic military coups, ruthless petro-politics, and unconscionable deprivations of basic human rights since its independence in 1960. In recent years, it has risen to prominence as a result of the genocide being perpetrated by Sudanese Arab militias in Darfur. International attention has centered on the porous border between Chad and Sudan, where the two governments are waging a violent proxy war involving local militias and rebel groups. So far, the crossfire has killed or injured hundreds of civilians and has displaced hundreds of thousands more, drawing protest from human rights organizations and compelling the international community to

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2 Marchal 2007.
react. Today, in eastern Chad and parts of the northeastern CAR, the European Union is conducting a concerted peacekeeping effort to mitigate the violence.

Since 1990, Chad has languished under President Idriss Déby, an archetypical African head of state who seized power in a coup d'etat against his predecessor, Hissène Habré. For the last eighteen years Déby has remained in power, despite persistent and often violent opposition from a number of disenchanted parties and rival ethnic groups. Most recently, anti-Déby rebels attacked the capital city of N'Djamena in February of this year, killing hundreds of civilians. N'Djamena was previously assaulted in April 2006 by similarly motivated rebels. Both times, the President and his regime were barely defended by loyalist forces, and aided only by French military intelligence and logistics units. More significantly, in both instances the rebels were armed and supported by the Sudanese government in Khartoum. These attempted coups are part of the larger and more complex conflict that has engulfed President Déby, Chad, and much of Central Africa. Away from the capital, in eastern Chad, violence has been more frequent and more spontaneous. Much of this violence has been directed against Darfuri refugees, who are pursued by janjaweed militias allied with Khartoum, but Chadian

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4 The designation is an abbreviation of the French names for the two countries, République du Tchad and République Centrafricaine, Council of the European Union, 2008.


civilians have also suffered death and displacement. Estimates place approximately 400,000 Darfuri refugees and displaced Chadians in eastern Chad, crowded in camps that are highly vulnerable to roving militias or rebel groups.

Seeking to prevent the tide of violence emanating from Darfur from spreading west, the UN Security Council passed Resolution 1778 in September 2007, which authorized an EU peacekeeping operation in eastern Chad and the northeastern CAR as part of a larger UN humanitarian mission. The European force, eventually named EUFOR Tchad/RCA after the French, was given the following mandate:

(i) To contribute to protecting civilians in danger, particularly refugees and displaced persons;
(ii) To facilitate the delivery of humanitarian aid and the free movement of humanitarian personnel by helping to improve security in the area of operations;
(iii) To contribute to protecting United Nations personnel, facilities, installations, and equipment and ensure the security and freedom of movement of its staff and associated personnel.

This force would be composed of 3,700 troops (mostly French) and would be maintained for up to a year until a UN relieving force arrived. The first units arrived on March 15, 2008 and, as

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11 “Chad: Arab Civilians Also Targeted by Militias”; “Chad: EU Should Deploy Troops Now to Protect Civilians”; “A Peacekeeping Puzzle for Europe.”
12 Chad: EU Should Deploy Troops Now to Protect Civilians”; “A Peacekeeping Puzzle for Europe.”
of the end of April, have increased to 2,380, or about two-thirds of final operating capability.\textsuperscript{15}

The six month gap between authorization for the mission and the arrival of the first peacekeepers in Chad or the CAR was unnecessary long and costly.\textsuperscript{16} Most observers attribute the breadth of this gap to delays stemming from personnel, equipment, and lift capacity shortages.\textsuperscript{17} Six months delay is unacceptable for a "rapid reactionary force" dedicated to peacekeeping in distant regions, as such delays can be staggeringly costly.\textsuperscript{18} Consider, for example, the whirlwind genocide in Rwanda in 1994, in which more than 800,000 Rwandans, mostly ethnic Tutsis, were slaughtered by their Hutu neighbors in the span of 100 days—less than four months.\textsuperscript{19} In any military operation, but especially in peacekeeping missions, time is a crucial factor. The failure of EUFOR Tchad/RCA to deploy with all deliberate speed is cause for concern for those who would see the EU flourish as a benevolent world power.

Even though EU peacekeepers have touched down in Chad, the success of their mission remains uncertain. The 3,700-strong force is responsible for about 77,000 square miles—an area larger than the state of Washington—of African desert teeming with armed militias unfettered by the rule of law.\textsuperscript{20} Such a daunting task is made more difficult by an absence of helicopters for tactical airlift and rapid transport. Indeed, EU efforts around the globe—often under the banner of the UN or NATO—have suffered severely from the shortage of rotary-wing aircraft.\textsuperscript{21} Moreover, European-made helicopters are often unsuited to the

\textsuperscript{15} Council of the European Union 2008.
\textsuperscript{16} "A Peacekeeping Puzzle for Europe"; "Colonial Baggage"
\textsuperscript{18} "Colonial Baggage."
\textsuperscript{19} "Rwanda: How the Genocide Happened," \textit{BBC News}, Apr. 1, 2004
\textsuperscript{20} "A Peacekeeping Puzzle for Europe."
climates of the Middle East and Africa. For instance, British Lynx helicopters, designed to carry twelve soldiers, have been unable to manage more than one during the sweltering Iraqi summers.\textsuperscript{22} As Bjoern Seibert notes, helicopters are generally a force multiplier, meaning that they increase the effectiveness of a unit by enlarging the area over which that unit can operate.\textsuperscript{23} Given the diminutive size of the EUFOR, mission success depends on the number and quality of helicopters available. The absence of rotary-wing resources severely limits the operational capabilities of the EUFOR. Considering the relative size and strength of the various militias and rebel groups who are potential enemies, the peacekeepers may find themselves operating in a deterrent capacity and without the necessary means to adopt a strategy of compellence.\textsuperscript{24} As such, the success of EUFOR Tchad/RCA is in jeopardy and, consequently, so is the promise of an aggressive and effective European foreign policy.

The discouraging prospects of the EU in Central Africa give the impression of a state that lacks the military resources to pursue its ambitious foreign policy.\textsuperscript{25} However, the European continent is one of the wealthiest and most developed regions in the world. For instance, though less than half the geographical size of the United States, the EU exceeds its transatlantic partner in population (nearly 500 million) and GDP ($14.45 trillion), and also boasts a stronger currency.\textsuperscript{26} Given the EU's collective

\textsuperscript{22} Ibid.
\textsuperscript{23} Ibid., 34.
\textsuperscript{24} Ibid., p. 31, 35.
\textsuperscript{25} I use the term ‘state’ here very loosely; the EU is obviously not a state in the traditional sense, but it does possess, or at least aspires to possess, certain state-like attributes. Most relevantly, it has developed a Common Foreign and Security Policy, including the creation of multinational EU military units, as part of its institutional framework. Thus, it is appropriate to discuss the EU as a state insofar as it is able to articulate and implement a foreign policy agenda.
power, why is it unable to muster the resources to convincingly intervene in a relatively small conflict in Central Africa? This question was the primary inspiration for my research on the role of the military-industrial complex in determining military capacity, and it will guide the following discussion of that subject.

Before turning to my own argument, it is necessary to address one of the more persistent alternative arguments. This argument claims that Europe is incapable of effective intervention in Africa because of political will, or rather the absence thereof. Specifically, some analysts argue that World War II so traumatized the European continent that Europeans are unwilling to revisit that past by going to war. One common addendum to this argument is that European citizens would prefer to see their taxes spent on social services, like healthcare and education, as opposed to defense. Military capacity suffers, then, because the military is not perceived as a legitimate or desirable investment.

This "political will" argument is flawed, however. Quite simply, ample evidence exists to suggest that the EU is interested in pursuing a foreign policy supported by military force. The legislative record of the EU over the past two decades (summarized in Section X) demonstrates increasingly specific institutional commitments to developing an effective military instrument. Moreover, the EU is presently making use of this instrument, effective or not: European forces are currently engaged in a number of foreign operations—generally peacekeeping or rule-of-law missions—around the world, including Afghanistan and Bosnia, as well as in Chad and the CAR.27 Both of these points contradict the notion that there is a lack of political will in Europe to pursue a military agenda. On the contrary, the EU has made concerted efforts, with occasional successes, to expand and assert its military strength beyond its borders.

The problem is one of means, not will. I will argue in this paper that the deficient military capacity of the EU is the result of two characteristics of the European military-industrial complex: (1) an undersized defense industry and (2) exclusionary practices regarding foreign arms competition and trade. Specifically, low production capacity in the domestic defense industrial base has led to a dearth of vital technologies of sufficient quality or quantity; furthermore, formal and informal barriers to arms imports from the U.S. in particular have prevented European militaries from procuring equipment from more capable foreign firms.

While most analysts would concur with my first claim (that a weak defense industry begets a weak military), my second claim (that protectionism in the defense industry undermines national security) is more controversial. Competing arguments seeking to explain deficient military capacity suggest that opening defense contract bids to foreign competition would weaken the domestic defense industrial base, causing long-term problems for procurement agents. In particular, reliance on foreign firms raises issues about security of supply: it is uncertain whether a foreign firm will be able to meet demand in times of crisis, or if it will choose to meet demand if there is a conflict of interest. Also, there are issues about specificity of supply: defense products are generally made to order and what the DOD needs is not necessarily what the MoD or the DGA needs. Thus, there are strong justifications for protecting and subsidizing the domestic defense industrial base. But, as mentioned above and expounded in detail below, there are also valid reasons for permitting transatlantic competition. One of the primary objectives of this paper will be to resolve the controversy between these two arguments and determine how foreign dependence affects military capacity, positively or negatively.
Background: The ESDP, the ERRF, and the EDA

The last decade of the 20th century began auspiciously with the surprising and peaceful resolution of the Cold War. With the demise of the Soviet Union came the end of a strategic paradigm that had dominated international relations for nearly a half-century. As many authors have noted, the victory of the United States and its NATO allies marked the historic transformation of a bipolar world order into a unipolar one. The nations of Europe found themselves no longer in the middle of two superpowers, and the obsolescence of their previous imperative—namely, to be the first line of defense against a Soviet invasion—left foreign policymakers at a loss as to how Europe should redefine its position in the global community. At first, this uncertainty was resolved by looking introspectively as the EU dealt with the adoption and implementation of the Maastricht Treaty and the reunification of Germany. Events in the Balkan Peninsula, however, forced Europe to acknowledge the grim and unsavory realities of a post-Communist world. In particular, paradise comes at a price, and the liberal capitalist European utopia would have to be vigorously defended against all enemies. Moreover, this defense would have to be mustered by the Europeans, at least in part, and not by their American allies.

With this new sense of purpose, they pursued a policy of common defense and cooperation designed to aggregate their military power in the same manner as they had their economic power. This process began with the creation of the European Security and Defence Policy (ESDP), a major component of the Common Foreign and Security Policy (CFSP) pillar established by the Maastricht Treaty in 1992. The purpose of the ESDP, as reiterated by the European Council in 2000, was to reinforce “the

Union’s external action through the development of a military crisis management capability as well as a civilian one.” The emphasis, then, was not on domestic defense or homeland security, but on the ability to realize the EU’s foreign policy objectives. In 1999, with the ratification of the Amsterdam Treaty, the ESDP was augmented to accommodate the Petersberg tasks, which refer to various operational capabilities necessary for regional stability. These tasks include humanitarian and rescue efforts, peacekeeping missions, and crisis management. The ability to accomplish such tasks was addressed by the 1999 Helsinki Headline Goal to establish a European Rapid Reactionary Force (ERRF) by 2003. The ERRF was to be composed of up to 15 multinational brigades totaling 50,000-60,000 persons capable of deploying within 60 days and sustainable for up to a year. In 2004, the EU updated the Helsinki Headline Goal, expanding the operational flexibility of the ERRF to include disarmament and anti-terrorism assistance, and addressing various shortcomings of the previous iteration.

In addition to formulating a common security and defense policy, EU leaders recognized the need for a common procurement policy to resolve gaps in capacity encountered in the former process. The creation of the ERRF, for instance, was hindered significantly by a lack of air- and sealift capacity, deficient command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) structures, and poor interoperability between national units. The process of creating a cohesive European procurement policy, though, would not be

simple, considering the complexity of the institutional structure related to defense, not to mention the organizational issues surrounding defense cooperation. 35 To a certain extent, such a policy already existed at the beginning of the 1990s in the form of the Western European Armaments Group (WEAG), which sought to strengthen and consolidate the European defense industrial base through harmonization, intra-European competition, and R&D cooperation. 36 This body, however, was viewed as too rigid of a structure for fruitful collaboration, and in 1996 France, Germany, the UK, and Italy created the Organisation for Joint Armament Cooperation (OCCAR, after the French). 37 This new arrangement offered participant nations the ability to collaborate on smaller, more focused projects, in which cost-efficiency was a principal concern. 38 In 2004, further progress was made with the inception of the European Defence Agency (EDA), which was designed to develop defense capabilities, improve armaments cooperation, and strengthen the European defense industrial base, among other objectives. 39 Currently, the EDA is the most influential procurement agency at the European level, with broader participation than the OCCAR and having absorbed most of the WEAG’s institutional responsibilities. 40

This brief summary of European defense and procurement policy in the post-Cold War period provides a historical and institutional context for the following discussion. Also, the evolution and

expansion of the ESDF over time to include the ERRF and the EDA tells an interesting narrative about the relationship between procurement, defense, and foreign policy. The ESDF was created to establish the EU’s role in the international community; the ERRF was created to give weight to that role; and the EDA was created to ensure that weight remained substantial. In generic terms and in reverse, procurement policy is required to ensure military capacity, which is required to effectively conduct foreign policy. This chain of causality is the basis for my conception of the MIC, which will be expounded in the sections immediately below.

**Conceptualizing the MIC**

The European military-industrial complex has not historically been a subject of much debate, as evinced by a relative dearth of literature on the topic. The vast majority of research on the concept of the military-industrial complex has, as one might expect, centered on the archetypical manifestation of that concept in the United States. Moreover, the term itself has been relegated to obscurity, generally dismissed as a catchphrase of the radical left used by pseudo-intellectuals to undermine and expose the machinations of “the man.” Nonetheless, some valuable insights into the structure and composition of the MIC have emerged over the decades, which will help to define a less ideological and more academic conception.

Charles Wolf, Jr., writing in 1972, suggests that the military-industrial complex is composed of three separate entities: the military, the defense industry, and portions of the government responsible for military affairs.41 Each of these entities is differentiated by unique interests and imperatives. The military, for instance, is charged with the task of providing national security and ensuring the success of foreign policy missions, but

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is also concerned with the size of its budget. The defense industry is interested primarily in profits and opportunities for increasing profits, including the advancement of technologies with potential spillover effects. Finally, the government is concerned with the general welfare and security of the nation, but also recognizes its responsibility as the agent of its constituency. Wolf emphasizes that these interests are frequently in conflict with each other and are as likely to produce rivalry as they are to produce cooperation.

One example of such conflict is the allocation of resources by budget officials: although the military may want more money, elected officials must weigh this against their constituents’ demands for better education or lower taxes. Or, defense contractors may cut costs during development to inflate their profits, resulting in an inferior product for the military. Wolf sums up his conception of the MIC succinctly: “The reality of the MIC is complex not simple, pluralistic not monolithic, sometimes effective and potent, sometimes ineffective and impotent, no less motivated by concern for national interests than its critics, nor less motivated by a mixture of other motives than its critics.”

Although Wolf does not offer a particularly detailed depiction of the MIC and its components, his discussion does dismiss some of the previous theoretical interpretations of the MIC. Most importantly, he rejects the notion of a monolithic complex composed of various elitist elements which pursue their common goal of perpetual warfare by means of propaganda and repression. This is essentially the definition of the MIC expounded by C. Wright Mills in *The Power Elite*, which bears some resemblance to the outmoded and satirized version alluded to before. Wolfs pluralistic model provides a more compelling base upon which to build a new conception of the MIC, one which acknowledges the intricacies and conflicts inherent in the coalescence of three of the most influential sectors of society.

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42 Ibid., 31
More recent treatments of the MIC, though they may not name it as such, illuminate the various functions and processes associated with the MIC and its individual components. With regards to the European manifestation, most authors focus on the defense industry and the procurement agencies, as well as the frequent interactions and conflicts between the two. In this vein, Seth G. Jones provides an extremely useful delineation of the European defense complex, which emphasizes the role of procurement decisions in relation to the welfare of the domestic defense industrial base and the international power status of the state.\(^4\) Jones’s analysis suggests that states have three options when purchasing defense technologies: autarky, dependence, and collaboration.\(^5\) The first, autarky, involves the state being self-reliant for all or most of its arms needs. This is common of powerful states, like the U.S., which can afford to invest substantial resources into a strong defense industrial base. The second option, dependence, is the choice of weaker states, which lack the economic, technological, and human resources to produce advanced weapons systems and therefore must rely on arms imported from foreign suppliers. The third option, collaboration, involves cooperation with foreign partners to produce arms. This option, according to Jones, is exercised as a balance of power mechanism: states choose to collaborate with each other in order to improve their power status relative to a regional or global hegemon. Collaboration achieves this result in two ways: by aggregating resources, which forces the rationalization of the domestic defense industrial base and improves efficiency; and by reducing dependence on the hegemon, which ensures security of supply and encourages domestic defense industrial growth. In short, Jones argues that procurement decisions made by policymakers have a significant effect on the power status of the state and can be manipulated accordingly.


Although Jones emphasizes the use of collaboration as a tool of realpolitik-guided foreign policy, his contribution to this paper lies in his analysis of the strategies available to the procurement agency and how they affect the defense industrial base. These strategies, he explains, are constrained by the capabilities and resources of the state. In turn, they constrain the size and scope of the defense industrial base, which has a substantial impact on the power status of the state. Combining this result with that surmised from Wolf’s analysis gives us a pluralistic model of the MIC which accounts for not only the divergent interests of each sector, but also their varying capabilities and endowments. This model will be described in more detail below, and some of my own theoretical additions will be expounded.

Defining the MIC: The Military, the Defense Industry, and the State

In the realm of international relations, as in all practical fields, there is a truism that certain tasks require specialized tools. This truism applies at all levels of international policymaking, including the exercise of military might to achieve foreign policy objectives, as well as the use of specific defense technologies to complete vital missions. Just as diplomats require a ready and capable military to deter foreign threats and give credibility to their own threats, the air force needs strategic bombers to deliver ordnance to enemy targets. Similarly, the army needs swift and durable battle tanks, and the navy needs well-stocked aircraft carriers in order to project force where foreign policy dictates. The following argument asserts the significance of procurement decisions on policymakers’ ability to conduct foreign affairs by asserting a series of fundamental links (collectively, the MIC) between the two. In short, foreign policy depends on the maintenance of a potent military, which in turn requires the development and procurement of technologically advanced weapons of war.
To preface this conclusion, it is first necessary to understand how the defense industry, the military, and certain bureaucratic elements of the state coalesce and function as the “military-industrial complex.” In general, these entities exist as a series of links in a chain, each link defining or constraining the range of motion of its successor by moving in patterns dictated by its predecessor. How and why each link chooses to limit its successor depends on the unique capabilities and interests of that link.

The first link in the chain is the bureaucracy in charge of procurement. This agency is responsible for soliciting bids and distributing contracts to members of the defense industry. Decisions like how much money to spend on certain projects, what research and development projects to fund, what types of products to buy, and whom to award valuable contracts to greatly affect the composition and vitality of the defense industry. Indeed, many defense firms rely on government contracts as their sole source of revenue. Procurement agencies in many countries, especially the U.S. Department of Defense, often enjoy near or complete monopsonistic status: their decisions as consumers directly affect the price and quantity of goods offered by defense firms. As such, the nature of their demand determines in large part the make up of the market for defense technologies, including what is produced and who gets to sell it.

In turn, constrained by procurement decisions, the defense industry plays a critical role in defining the capabilities of a state’s military. What technologies are readily available sets real boundaries on the variety of circumstances in which the military can be used. For instance, a military facing an entrenched enemy requires precision-guided munitions to extirpate pockets of resistance. Without such specialized tools, combat operations would be unacceptably costly and ultimately futile. In general, the absence of certain technologies or assets limits the military’s ability to effectively respond to particular situations.
The third link, the military, defined by the scope of its capabilities, affects foreign policy decisions by narrowing the variety of options available to policymakers. If a military solution is unlikely to succeed or altogether impossible, policymakers are forced to employ soft tactics, like diplomacy or economic sanctions. Though these options are not inherently inferior, there exist instances in which military power is the only recourse, as against Nazi Germany in 1939. More currently, cases of genocide and other human rights violations, as occurred in Rwanda and Bosnia in the 1990s and which persist in Sudan today, require troops on the ground to physically separate opposing factions. Thus, a country’s ability to respond to international crises in accordance with its foreign policy goals rests in large part on the military’s ability to project force beyond its borders, which in turn relies on the production of technologies by the defense industry, which in turn accommodates the policy needs of the procurement bureaucracy.

No doubt, this is an overly simple view of foreign policy: policymakers have many more tools at their disposal, including economic sanctions and international indictment with which to pursue their directives and influence other nations. The military, also, is not only composed of the machines of war, but of soldiers, sailors, airmen, and their officers, as well as the numerous doctrines and codes which direct their activities. The argument above, however, remains valid, as it demonstrates the relevance of military procurement decisions, which can, via a chain reaction of operational constraints, make certain policy options unfeasible or impossible which might otherwise be the most cost-effective means of conflict resolution.

Despite its oversights, the model expounded neatly summarizes the dynamics between and within the military-industrial complex and foreign policy circles—at least, for the specific case of

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autarky. Of course, governments, at least those with foreign policy bureaus, do not live in autarky, nor do defense firms. Yes, the relentless march of international capitalism and trade has reached even the realm of national defense. Firms today, even “national champions,” face fervent competition from overseas rivals. Consider the rivalry between Boeing and Airbus, which recently came to a head over the unexpected awarding of the U.S. Air Force’s contract for a new fleet of refueling tankers to the latter.\(^{48}\) This example clearly illustrates an important addendum to the argument proposed above: defense technologies need not be procured from domestic sources. That is, demand for military goods can be met not only by domestic production, but also by foreign supply. The quantity of arms a government purchases is therefore a function of the international competitiveness of foreign suppliers and the effectiveness of trade barriers, such as tariffs and quotas, in addition to being a function of domestic production capacity. Though the competitiveness of foreign suppliers will be considered exogenous to our model, the implementation of and adherence to trade barriers is an important decision contemplated by procurement agencies.

Military capacity is significantly affected by trade barriers insofar as such barriers increase or decrease the presence of foreign firms in the domestic arms market. Specifically, the relationship between military capacity and protectionism is a negative one: reducing trade barriers against foreign suppliers increases military capacity. This claim is supported by a number of arguments associated with classical free trade theory. First, the opening of defense contracts to foreign bidders increases competition, which consequently forces all firms involved, foreign and domestic, to become more efficient and produce better goods for less cost. Second, increasing the number of firms in the market induces consolidation and rationalization, which reduces redundancies and improves efficiency. Third, removing barriers encourages

reciprocation, improving access to foreign markets for domestic firms. This allows both domestic and foreign firms to specialize and take advantage of economies of scale, creating absolute gains for both firms and procurement agents. And fourth, being open to foreign firms provides opportunities for foreign investment, the effects of which include increased employment, regional development, and, perhaps most importantly, technology transfer. For these reasons, it is clear that military capacity would greatly benefit from a substantial foreign presence in the domestic defense market both directly, through increased competition, and indirectly, through a better developed and more rationalized domestic defense industrial base. Conversely, the erection of trade barriers to foreign arms would only serve to prop up a significantly less effective defense industry that would continue to produce inferior products at higher cost.

Based on these arguments and conjectures, it is possible to construct a theoretical model of military capacity which acknowledges the effects of actions taken by the procurement bureaucracy on the domestic market for defense goods. Procurement officials can choose to spend money on domestic projects, thereby supporting national firms and fostering industry growth. They can also choose to limit the importation of foreign goods, preserving security of supply and reducing dependence on foreign industry. The actual effects of these decisions, and therefore the validity of the model, will be observed and assessed in the following sections.

**Methodology and Data**

The aim of this project is to understand how different aspects of the MIC affect military capacity. Within the framework of the European Union, the subsequent sections will analyze the size of the European defense industry and the EU’s dependence on American suppliers as independent variables to determine their relationship to military capacity. The following discussion will focus on the investigation of two primary hypotheses:
There is a positive correlation between defense industry size and military capacity;

There is a positive correlation between foreign dependence and military capacity.

Before testing these hypotheses, this section will proceed to operationalize the variables listed above, clarifying ambiguous terms like “size” and “dependence.”

The first independent variable, defense industry size, will be measured quantitatively. Statistics regarding defense industry revenues will be essential to assessing the magnitude of the sector. Moreover, these statistics will be observed across states and over time to illustrate significant patterns of defense production. In particular, the European defense industry will be subdivided into its five of its largest component states—Britain, France, Germany, Italy, and Spain—and each data entry will contain the aggregate defense revenues of the highest grossing defense firms in one of the aforementioned states for a particular year. The resulting panel data will hopefully provide an accurate picture of size of the various European defense industries in the post-Cold War period.

It is important to note that this data gathering specification is not arbitrary. In this instance, panel data has a number of benefits. First, given the relatively short time period in review, from 1990 to 2005, using only time series data with aggregated defense revenues from all European firms would create a dataset with an unacceptably low sample size, n. By parsing the European defense industry into national compartments, n becomes much larger. Second, this method has the benefit of creating significant variance in the independent variable, because the defense industries of Spain and Italy are much smaller than those of France and Britain. High variance gives the ensuing statistical analysis greater legitimacy by demonstrating the effects of the independent variable over a wide range of possibilities.
The second independent variable, foreign dependence, will also be measured quantitatively, in terms of the value of arms imports received by European states. Specifically, dependence will be calculated as the value of arms imports from the U.S. divided by the procurement expenditure for each of the five states. Thus, the variable will range on a continuous interval from ‘0’ to ‘1,’ with a value of ‘1’ corresponding to absolute dependence and smaller values indicating lesser dependence. This metric does not take into account other forms of dependence besides imports, such as co-production or co-development, so a value of ‘0’ does not necessarily imply absolute independence. It may be the case that a state is entirely dependent on licensed technology researched and developed by American firms, but has negotiated a contract that stipulates all production occur domestically, thus returning a value of ‘0.’ Such an extreme case is rare, however, and none of the EU states examined below exhibit this anomaly so acutely. Moreover, the importance of this variable is to illustrate trends in defense procurement over time, and the stated definition accomplishes this task adequately by indicating changes in the relative significance of American imports.

Regarding the dependent variable, military capacity will be measured by evaluating the defense expenditures of the various European governments. Again, this will be measured across states and over time, resulting in panel data. The decision to measure military capacity in terms of defense expenditures is not an ideal one, since a substantial proportion of defense funds do not contribute to the improvement or maintenance of operational capabilities. In the U.S., for instance, sizeable portions of the defense budget are earmarked as pensions for retired service members or as various benefits for current enlistees, including health care and family housing. Estimating these figures and excluding them from the metric, however, would be unfeasible.

Short of designing and running complex simulations to determine actual military capacity, defense expenditures are the best and most practical indicators of that variable.

Much of the data used for this analysis was culled from statistics published by the Stockholm International Peace Research Institute (SIPRI) in their annual yearbooks and online databases. The dataset on defense revenues was compiled from annual lists of the one hundred largest arms-producing companies in the world (excluding China) by summing the defense revenues of the top firms for each subject country. Thus, national defense revenues in 2005 were calculated as seen in Table One. The same process was repeated to create a dataset ranging from 1990 to 2005, with the exception of 2001; SIPRI published no data on the subject for that year. All monetary values are listed in millions of constant 2005 USD except where noted.

Table One: Arms Sales of the Largest EU Defense Firms, 2005

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>Country</th>
<th>Arms Sales 2005</th>
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<tbody>
<tr>
<td>4</td>
<td>BAE Systems</td>
<td>UK</td>
<td>23,230</td>
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<tr>
<td>7</td>
<td>Finmeccanica</td>
<td>Italy</td>
<td>9,800</td>
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<td>EADS</td>
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<td>France</td>
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<td>DCN</td>
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<td>21</td>
<td>Dassault Aviation Groupe</td>
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<td>Saab</td>
<td>Sweden</td>
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<td>28</td>
<td>Rheinmetall</td>
<td>Germany</td>
<td>1,740</td>
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<tr>
<td>29</td>
<td>CEA</td>
<td>France</td>
<td>1,710</td>
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<tr>
<td>33</td>
<td>QinetiQ</td>
<td>UK</td>
<td>1,550</td>
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<table>
<thead>
<tr>
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<td>Smiths</td>
<td>UK</td>
<td>1,450</td>
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<td>39</td>
<td>ThyssenKrupp</td>
<td>Germany</td>
<td>1,240</td>
</tr>
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<td>43</td>
<td>VT Group</td>
<td>UK</td>
<td>1,170</td>
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<td>51</td>
<td>Cobham</td>
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<td>53</td>
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<td>GIAT Industries</td>
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<tr>
<td>64</td>
<td>Indra</td>
<td>Spain</td>
<td>670</td>
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<td>68</td>
<td>MTU Aero Engines</td>
<td>Germany</td>
<td>610</td>
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<td>69</td>
<td>Fincantieri</td>
<td>Italy</td>
<td>610</td>
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<td>70</td>
<td>Babcock International Group</td>
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<td>78</td>
<td>Avio</td>
<td>Italy</td>
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<td>81</td>
<td>DaimlerChrysler, DC</td>
<td>Germany</td>
<td>500</td>
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<td>83</td>
<td>Ultra Electronics</td>
<td>UK</td>
<td>490</td>
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<tr>
<td>87</td>
<td>MAN</td>
<td>Germany</td>
<td>460</td>
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<td>88</td>
<td>Meggitt</td>
<td>UK</td>
<td>460</td>
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</table>

UK Subtotal: $34,180  
France Subtotal: 19,920  
Germany Subtotal: 6,020  
Italy Subtotal: 10,940  
Spain Subtotal: 1,640  
Other: 11,690  
Total: $84,390  

The data on defense expenditures and procurement was compiled using a combination of the SIPRI Military Expenditure Database and various NATO press releases on defense expenditures.\(^51\) The latter documents are published annually and contain information on the proportions of total defense expenditures allocated by

\(^{51}\) Stockholm International Peace Research Institute,  
member states to personnel, equipment (procurement), infrastructure, and other operating expenditures. Thus, defense and procurement expenditures in 2005 were calculated as seen in Table Two. Unfortunately, this process was disrupted by another gap in the data: NATO did not publish procurement ratios for France until 1997. As a result, the dataset has a smaller sample size than expected, and the variance of the procurement variable may be somewhat skewed.

<table>
<thead>
<tr>
<th></th>
<th>Defense Expenditure ($)</th>
<th>Procurement Ratio</th>
<th>Procurement Expenditure ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>60,076</td>
<td>.231</td>
<td>13,878</td>
</tr>
<tr>
<td>France</td>
<td>52,917</td>
<td>.213</td>
<td>11,271</td>
</tr>
<tr>
<td>Germany</td>
<td>38,060</td>
<td>.142</td>
<td>5,405</td>
</tr>
<tr>
<td>Italy</td>
<td>33,531</td>
<td>.091</td>
<td>3,051</td>
</tr>
<tr>
<td>Spain</td>
<td>11,826</td>
<td>.0221</td>
<td>2,614</td>
</tr>
<tr>
<td>Total</td>
<td>196,410</td>
<td></td>
<td>36,219</td>
</tr>
</tbody>
</table>

Finally, the dataset on European dependence on American imports was compiled from import/export tables from the SIPRI Arms Transfers Database and the procurement dataset described above. Dependence was calculated as the quotient of U.S. imports over procurement. Table Three depicts this calculation for 2005. Import values are SIPRI Trend Indicator Values converted to millions of constant 2005 USD; as such, they do not represent the financial value of arms delivered, but are still useful for observing arms transfer trends over time.

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Table Three: Ratio of U.S. Imports to Procurement, 2005

<table>
<thead>
<tr>
<th></th>
<th>U.S Imports ($)</th>
<th>Procurement ($)</th>
<th>Dependence</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>22</td>
<td>13,878</td>
<td>0.002</td>
</tr>
<tr>
<td>France</td>
<td>0</td>
<td>11,271</td>
<td>0</td>
</tr>
<tr>
<td>Germany</td>
<td>145</td>
<td>5405</td>
<td>0.027</td>
</tr>
<tr>
<td>Italy</td>
<td>88</td>
<td>3051</td>
<td>0.029</td>
</tr>
<tr>
<td>Spain</td>
<td>31</td>
<td>2614</td>
<td>0.012</td>
</tr>
</tbody>
</table>

Results

Despite the various faults and gaps in the dataset described previously, basic regression analysis supplied several interesting results regarding my two hypotheses. Notably, single-variable linear regressions testing each hypothesis produced significant correlations between military capacity and both defense industry size and foreign dependence. Only the first correlation, however, was positive; the relationship between foreign dependence and military capacity was shown to be negative. Running a multiple regression analysis confirmed these results. Thus, both defense industry size and dependence are indicators of military capacity, but they have opposite effects. Table Four summarizes the results of my regression analysis in statistical terms.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient ($\beta_c$)</th>
<th>t-statistic</th>
<th>p-value</th>
<th>R²A</th>
</tr>
</thead>
</table>

Model I: Military Capacity vs. Size

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56 Results were compiled using the statistical program R, version 2.7.0. See: “The R Project for Statistical Computing,” http://www.r-project.org/index.html.
In order to understand these results more thoroughly, it is necessary to commence a very brief review of the statistical methods and theory required to produce Table Four. The essential purpose of regression analysis is, given a set of data points, to determine whether the dependent variable can be explained by a function involving the independent variable. For a single-variable linear regression analysis, this function is assumed to take the form:

$$Y_t = \alpha + \beta X_t + u_t, \quad t = [1, n]$$

where $Y_t$ is the value of the dependent variable at instance $t$, $X_t$ is the value of the independent variable at instance $t$, $\alpha$ is the vertical intercept, and $\beta$ is the slope coefficient; $u_t$ is the error calculated by the difference between the predicted $Y_t$ and the actual $Y_t$; and $n$ is the sample size. Using the set of data points, it is possible to estimate a value for $\beta$, which is denoted as $\beta_e$ and is listed in the second column of Figure X. The validity of this estimator—that is, whether it accurately estimates the true value of $\beta$—is evaluated by basic hypothesis testing. Specifically, the null hypothesis $H_0$ that $\beta = 0$ is tested against the alternative hypothesis $H_a$ that $\beta \neq 0$. In generic terms, the null hypothesis that there is no relationship between $Y$ and $X$ is tested against the alternative hypothesis that there does exist some relationship between the two variables. The result of this test is the p-value, which is essentially the probability of the regression analysis producing the calculated non-zero $\beta_e$ despite the true $\beta$ being equal to zero. Rephrased, the p-value indicates the likelihood of
the regression analysis suggesting that there is a relationship between \( Y \) and \( X \) when in fact there is none. If this p-value is below a certain threshold, the relationship defined by the function \( Y_t = \alpha + \beta X_t + u_t \) is considered statistically significant and it is possible to suggest that \( Y \) can be predicted by \( X \). For this project, I adopted the standard significance level of 95-percent, which means that the p-value must be below 0.05 for the result to be significant.

As an extension of the single-variable case, multiple linear regression analysis attempts to determine whether the dependent variable can be predicted by not one independent variable, but by several. This function takes the following form:

\[
Y_t = \alpha + \beta_1 X_{1,t} + \beta_2 X_{2,t} + \ldots + \beta_k X_{k,t} + u_t, \quad t = [1,n]
\]

where \( \beta_1, \beta_2, \) and so on through \( \beta_k \) are the coefficients which define the linear relationship between \( Y_t \) and \( X_{1,t}, X_{2,t} \), and so on through \( X_{k,t} \), respectively. The value \( k \), of course, refers to the number of independent variables included in the model. Again, as in the single-variable case, each of these \( \beta \)'s is estimated using the dataset given and the statistical significance is given by the p-value. Recall that the p-value for each \( \beta \) measures the probability that the estimated value of that \( \beta \) is non-zero when its true value is actually zero. Using the same significance level as above, 95-percent, the relationship of each \( X \) to the independent variable \( Y \) will be considered statistically significant if its associated p-value is less than 0.05.

A further metric for assessing the utility of a regression analysis is the \( R^2 \) value, or the coefficient of determination, which essentially indicates the proportion of variation in the dependent variable which is explained by the independent variable. As such, \( R^2 \) ranges on a continuous interval from zero to one. In our model considered above, an \( R^2 \) value of 0.50 suggests that 50-percent of the variation in \( Y \) can be explained by \( X \). In this analysis, I chose to not use \( R^2 \), but rather adjusted-\( R^2 \), denoted \( R^2A \) and listed in
column five of Table Four, to measure correlation. For the single-variable regression analyses, the difference is insignificant; but, for the multiple regression case, $R^2$ gives a more accurate description of correlation that compensates for inevitable artificial inflation of $R^2$ as a result of adding explanatory variables.

With this brief summary of statistical methods in mind, the results of the regression analyses described above can be properly interpreted. In the first single regression analysis testing H1, the $\beta$ coefficient was positive and the p-value was less than 0.05. This means that the $\beta$ was statistically significant and H1 can be confirmed with 95-percent certainty. In the second single regression analysis, the $\beta$ coefficient was negative and the p-value was less than 0.05. Though this indicates that the $\beta$ was statistically significant, H2 must be rejected. H2, which predicted that there was a positive correlation between military capacity and foreign dependence, is contradicted by the evidence, which suggests that there is, in fact, a negative correlation between the two. These two results were confirmed by the multiple regression analysis, which estimated a positive $\beta$ for the variable defense industry size and a negative $\beta$ for the variable foreign dependence, with both being statistically significant. In sum, both variables can be considered significant indicators of military capacity, but not in the manner predicted: as defense industry size increases, military capacity increases as well; but, as dependence increases, military capacity declines.

**Analysis**

Given these results, it is prudent now to consider their repercussions. If military capacity is positively correlated with defense industry size and negatively correlated with foreign dependence, how should EU policymakers proceed in order to enhance their military? First, the size of the defense industry must be increased. This does not necessarily mean that more defense firms should be introduced. In fact, the opposite should occur: the European defense industry needs to rationalize and
consolidate in order to improve its competitiveness. The shift in composition from many small firms to a few big firms implies increased efficiency, and therefore increased sales, because firms can take advantage of economies of scale. In macroeconomic terms, the presence of economies of scale refers to the ability of a firm to increase production and have its marginal costs decline. A common example of this principle is in the commercial aircraft industry: building ten airliners is not ten times as costly as building only one, because the capital investment needed to build one plane (purchasing manufacturing equipment, R&D costs, and so on) is the same as the capital investment to build ten. In short, when exploited properly, economies of scale provide firms with huge efficiency gains. European defense firms should be encouraged to exploit this principle by merging and consolidating resources in order to increase the efficiency and size of the defense industry and, as a result, to increase military capacity.

The second method for increasing military capacity is to reduce dependence on foreign, namely American, defense firms. As mentioned previously, domestic protectionism ensures both security and specificity of supply. Security of supply is important to guarantee that the military always has access to vital technologies and the ability to maintain those technologies. To be dependent on foreign supply is to be vulnerable to the whim of foreign corporate executives and trade officials—individuals who are not particularly invested in the security of other states. As such, military capacity can suffer suddenly and without warning due to circumstances beyond the control of domestic policymakers. Consider Iran after the 1979 Revolution: an arms embargo by the United States made it impossible for the Iranian Air Force to service its fleet of F-14 Tomcats, rendering the majority of them useless. Although ensuring security of supply does not necessarily increase military capacity per se, it does

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increase probable expected military capacity by eliminating uncertainty about the future availability of defense technologies. Specificity of supply increases military capacity more directly by ensuring that the needs of the military are precisely met by defense industry products. Defense technologies are commissioned by procurement agencies with key performance specifications in mind; as such, contractors develop specialized products designed to fill particular gaps in military capacity. Different militaries have different operational needs, and defense products designed to fit one military may not fit another. This is particularly true with respect to the United States and Europe, which have divergent foreign policy agendas and consequently use their militaries in different settings to accomplish different goals. Ensuring specificity of supply increases military capacity by ensuring that gaps in capacity are appropriately filled. Based on this conclusion and the previous conclusion about security of supply, foreign dependence should be reduced in order to guarantee that military capacity is maintained both reliably and accurately.

In sum, policymakers seeking to increase military capacity have three options: (1) stimulate the domestic defense industry; (2) reduce dependence on foreign defense firms; and (3) do both of the above. Which of these options should policymakers pursue? Based on the statistical models described above, the first option is preferable to the second. The R²A of the model testing the effect of defense industry size was much higher than the R²A of dependence model, which means that size accounts for a greater proportion of the variation in military capacity. This implies that size has a greater effect on military capacity than dependence. Thus, increasing size will be a more effective means of increasing military capacity than decreasing dependence. Also, Option (1) is easier to accomplish than Option (2) within the current framework of the EU. Allowing firms to merge, which is a natural tendency given the prevalence of economies of scale in the industry, is an easier task than trying to reduce dependence on the United States, simply because the former does not require the
creation of new institutions. The latter, however, would necessarily involve the formation of institutions to mediate between the needs of the military and the services of the defense industry. To the extent that such institutions already exist in the form of the EDA, they are underdeveloped and require substantial reform before they can function properly.\textsuperscript{58} Considering the greater effectiveness and practicality of Option (1) compared to Option (2), policymakers should not pursue the latter unless the former is exhausted.

Intuitively, since both Options (1) and (2) have positive effects on military capacity, pursuing both simultaneously should produce the best results. However, this conclusion is not supported by the results of the regression analyses. In particular, the $R^2A$ of Model III is slightly lower than that of Model I, which suggests that the former accounts for a smaller percentage of the variation in military capacity than the latter. This suggests that decreasing dependence in addition to increasing defense industry size has a lesser effect on military capacity than only increasing size. Looking at the $R^2$ values for each model, though, produces a contradictory finding: Model III has a slightly higher $R^2$ than Model I. The proximity of these values implies that there may not be a real difference between the two models in terms of how well they account for variation in military capacity. In other words, it seems that defense industry size accounts for variation in military capacity just as well as size and dependence together. Thus, Option (1) is likely to be just as effective as Option (3). Considering the greater costs of decreasing dependence, Option (1) stands out as the most cost-effective choice for policymakers. Promoting defense industry growth should be the first objective of defense ministers seeking to increase military capacity. Only once that avenue is exhausted should they attempt to raise trade barriers against American firms.

Considerations

Though this paper has attempted to draw valid conclusions from the data available, the nature of empirical study is such that any results are subject to criticism and doubt. This is especially true in this instance, because of the difficulties inherent in operationalizing and quantifying variables like military capacity and dependence. Gathering the data on such variables is difficult as well. In spite of these impediments, the statistical models employed here have produced several significant and interesting results. Nonetheless, it is necessary to acknowledge that they are not perfect and that their conclusions are subject to debate.

Returning to the viability of Option (2), the statistical results found above suggest that my original hypothesis, H2, is incorrect: foreign dependence is actually negatively correlated with military capacity. However, examining the evidence more closely reveals that the veracity of this claim is ambiguous, even despite a very significant correlation. This ambiguity stems not from problems with the model, but from problems with the data: specifically, the data on foreign dependence does not exhibit a high variance, which raises issues about the applicability of the regression results. All but two of the dependence scores for the five countries over the time period 1990-2005 are less than or equal to 0.3. \[59\] This means that the regression coefficients associated with dependence estimated in Models II and III may only apply when dependence is low, or at least below 0.3. When dependence is greater, its effect on military capacity may be different in magnitude or even in direction. Thus, it is inconclusive whether increasing dependence beyond the 0.3 threshold would improve or impair military capacity. It may be true that my original hypothesis, H2, is correct beyond that or some other threshold and that the alternative (opposite) hypothesis applies otherwise. In light of this ambiguity, the policy prescriptions above must be

\[59\] Spain had dependence scores of 0.577 and 0.841 in 1990 and 1994, respectively.
read with skepticism. Options (2) and (3), to the extent that they rely on the statistical results of Models II and III, should not be pursued without further inquiry into their effectiveness.

It is also interesting to note that this ambiguity about how policymakers should view foreign dependence is currently reflected in the various procurement and defense industry policies of the EU and its member states. British policy, for instance, has historically emphasized cost-effective procurement regardless of nationality and encourages transatlantic cooperation.60 In contrast, the rest of the continent has generally embraced intra-European collaboration.61 All of these countries, however, are also prone to national pride and are inclined to support their own independent projects. An illustrative example of these divergent views is in the distribution of national defense firms in four different fighter programs. First, the UK defense giant BAE Systems is currently collaborating with American firms Lockheed Martin and Northrop Grumman on the Joint Strike Fighter, the largest defense contract in history.62 Second, the Franco-German-Spanish conglomerate EADS is developing the Eurofighter Typhoon, in collaboration with BAE Systems and Italian firm Alenia Aeronautica.63 Third, the French firm Dassault has already completed its Rafale project.64 Finally, the Swedish firm Saab has also already delivered its fighter, the Gripen.65 This mix of transatlantic cooperation, intra-European cooperation, and

65 GlobalSecurity.org, “JAS 39 Gripen,”
    http://www.globalsecurity.org/military/world/europe/gripen.htm
national self-sufficiency demonstrates the lack of unanimity in Europe on the issue of foreign dependence.

Unfortunately, further inquiry into this phenomenon and the effect of foreign dependence on military capacity will have to wait for another paper. At this time, I can only offer some possible modifications to the models to produce more concrete results. First, dependence could be defined to include more than just the proportion of U.S. imports to total procurement. For instance, it might be instructive to include a measurement of the level of co-production and co-development between the EU and the United States. This would approximate a fuller definition of dependence that is not dichotomous, producing a more accurate picture of foreign dependence in the European MIC.66 Second, military capacity could be weighted by country size, creating a per capita variable or something similar, which might be affected differently by size and dependence. Third, the models could be formulated as nonlinear. The relationship between military capacity and dependence might be logarithmic or exponential, in which case a linear model would be an unreliable and inaccurate method of estimating this relationship. Note that none of these proposed modifications would necessarily change the results, but they might at least resolve the ambiguity.

Conclusions

The viability of European foreign policy in the 21st century is a matter of great concern for many nations. Those who are beset by rampant civil unrest and domestic calamity are likely to turn to the European Union as a potential peacemaker. Also, those who currently bear the burden of policing the international community and find themselves overwhelmed—namely, the U.S.—would be glad to have a capable deputy. From a Western perspective at least, the ability of the European continent to pursue foreign policy missions like peacekeeping and crisis resolution will be of

66 Jones offers such a definition, as discussed in Section IV above.
paramount importance in preserving, and perhaps improving, global security. This paper has attempted to describe some the factors that directly affect the efficacy of such missions by focusing on military capacity and the MIC.

The preceding hypothesis tests and analysis suggest that military capacity is a complex and difficult characteristic to explain. In attempting to discern the salient variables which influence military capacity, this paper has yielded at least one substantial result: defense industry size is positively correlated with military capacity. Applying this result within the military-industrial complex paradigm produces a valuable policy prescription: policymakers seeking to improve military capacity should promote growth in the defense industry. The second result found in this paper (foreign dependence is negatively correlated with military capacity) also produces a policy prescription: policymakers should encourage domestic procurement to increase military capacity. This latter option, however, should be pursued cautiously, as the statistical evidence behind it is inconclusive. Thus, one of the original objectives of this paper, to determine the effect of foreign dependence on military capacity, remains unfulfilled and further inquiry is required.

Nonetheless, the results of this paper have important implications for the future status of the EU as an international military power. First, European military power is highly dependent on the domestic defense industry. European policymakers must emphasize the vitality and growth of the defense industry if they want to pursue an aggressive foreign policy agenda. Second, the encouraging defense industry growth is the most effective and least costly in terms of institution-building means of improving military capacity. As such, this option should be implemented immediately. Although the effect of foreign dependence on military capacity is inconclusive, these simple recommendations should suffice as a starting point from which the EU can begin an intensive reform of its military-industrial complex.
Such a reform will not be easy, however. Consolidation has its limits, and the European defense industry already underwent substantial consolidation in the 1990s; it may not be able to consolidate any further. Once this peak is reached, policymakers will need to turn in a new direction in order to improve military capacity. This will inevitably raise questions about foreign dependence and the role European firms should play vis-à-vis their American counterparts. Thus, the research begun by this project will continue to be of critical importance for European policymakers in the near future and beyond. Further inquiries should look to the model of the military-industrial complex, as established here, as a valuable conceptual framework with which to examine the determinants of military capacity, European or otherwise.

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