

THE CURRENT EUROPEAN REARMAMENT BETWEEN INTEGRATION AND FRAGMENTATION

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Introduction

The purpose of this paper is to examine and discuss the implications of current rearmament, with a particular emphasis on the EU's initiative for a common defence policy. The ongoing and escalating conflict between Russia and Ukraine has refocused the commitment of European governments and the attention of public opinion on military spending. Notably, defence budgets have been rising significantly. Data from the European Defence Agency (EDA) in 2022 revealed a 6% increase in defence spending compared to the previous year, marking the eighth consecutive year of growth. Since 2022, the conflict between Russia and Ukraine has heavily influenced public discourse, often cementing certain arguments and beliefs without critical examination. This paper aims to analyse three commonly presented theses in greater detail.

The first thesis posits that the rearmament announced by various European governments will not only enhance the security of their countries but also contribute to winning the ongoing war by providing military support to Ukraine. The second thesis can be summarized by the phrase "more is better," implying that larger armies and arsenals ensure greater security. The third thesis argues that the current rearmament approach, which focuses on strengthening existing national defence systems, is the best or only possible method. This perspective overlooks potential alternative arrangements, such as an integrated EU defence structure, suggesting that the consolidation of national defence systems would be the optimal choice.

Among these theses, the first one—that the substantial increase in spending will decisively influence the outcome of the current war between Russia and Ukraine—presents the most weaknesses. This argument can be demonstrated as partly fallacious. First, military spending decided ‘today’ cannot immediately alter the course of the ongoing war, as many of the allocated resources will go towards equipment and weapon systems that will only become available in the coming years. Secondly, at the time of writing this article, the war between Russia and Ukraine has clearly reached a military stalemate. A stalemate is a situation in which neither of the two conflicting parties can decisively prevail over the other. Despite common perceptions, military stalemate is actually one of the most frequent outcomes of armed conflicts.

For example, among all the incidents of Militarized Interstate Disputes (MIDs) coded in Maoz (2005), stalemates account for more than half of the total cases. Specifically, the increase in military spending is a consequence of military stalemate, not the other way around. One of the outcomes of a stalemate is an indefinite increase in military engagement, without either of the conflicting parties gaining a decisive advantage over the other. Caruso (2007) and Caruso & Xiang (2017) have demonstrated that an increase in military spending follows a higher likelihood of stalemate. Within a non-cooperative Nash framework, it can be shown that when rational parties know a stalemate is likely, they increase military spending. In the current context, EU and US military support for Ukraine cannot decisively secure a Ukrainian victory. Inevitably, the resolution of the conflict can only come through a peace agreement, which, at the time of writing, does not seem achievable in the short term.

The other aforementioned arguments require further analysis because they pertain to how military spending is allocated and how security is achieved in a world that is, unfortunately, characterized by greater uncertainty than in the recent past.

More is better? The fallacy of deterrence

The thesis behind the current EU rearmament can be summarized by the expression “more is better.” This idea is based on a static concept of deterrence typical of the Cold War era. In short, this argument posits that a wider availability of armaments is a prerequisite for greater security. By increasing military spending, a rational party signals a credible threat to its opponents. This belief has, therefore, contributed to motivating the recent rearmament policy. However, the idea of deterrence is ‘static.’ In a non-cooperative game, parties choose the optimal level of military engagement once and for all. The equilibrium concept adopted is the Nash equilibrium, which is stable by definition. Due to its analytical simplicity, this approach has become the reference theory in

international relations despite various criticisms. In general, the literature on military expenditures indicates that choices about military spending are interdependent and inherently dynamic. An increase in a state's military spending tends to induce increased military spending in other countries, especially non-allied ones. This is why an increase in military expenditure is perceived as a 'threat' by other countries, leading them to increase their own military budgets, resulting in a generalized proliferation that undermines security levels. This mechanism is known as an 'arms race,' which is a dynamic and inherently unstable process, as demonstrated formally by Richardson (1960) and Boulding (1962).

Specifically, the experience of nuclear deterrence and the absence of war between the United States and the Soviet Union during the Cold War have unfortunately led many to believe that more weapons not only increase a country's security but also enhance the stability of the international political system. This misleading belief is often used to justify rearmament processes. However, even on a robust theoretical basis, the deterrence of the Cold War era is not replicable. The Cold War was a bipolar system, and deterrence theories were developed for dyadic rivalries—scenarios involving just two actors, whether states or alliances. In a multipolar world with more fragile and undefined alliances, as is the current situation, the analysis of deterrence becomes more complex, and the conditions suggesting inherent stability in such scenarios tend to disappear. The likelihood that an actor will have significant incentives to disrupt the stability of the status quo is much higher when they can gain substantial returns by unilaterally changing their armament levels. Additionally, as the number of actors increases, so does the complexity of acquiring and sharing information compared to a dyadic relationship. This complexity significantly impacts the knowledge of the actors and their arsenals, ultimately affecting stability.

In this perspective, for example, Quackenbush (2006) introduces a three-party extended deterrence game, analysing it under conditions of both complete and incomplete information. The three actors involved are the Challenger, Defender, and Protégé. The findings suggest that deterrence is most likely to succeed when the alliance between the Defender and the Protégé is reliable. However, an intriguing dynamic emerges: neither the Defender nor the Protégé desires to be seen as a more reliable ally than the other. If there is an asymmetry in the perceived reliability of the allies, a Challenger is likely to target the more reliable state to avoid a multilateral conflict. Nakao (2020) also develops a simple model with three actors that proves to be unstable.

Secondly, Cold War deterrence was decisively characterized by the presence of nuclear weapons. In that context, the hypothesis of mutual destruction fundamentally al-

tered the incentives and expected outcomes for the involved actors (this assumption forms the basis of Mutual Assured Destruction). As demonstrated by Intriligator & Brito (1984), deterrence based solely on conventional weapons is not stable. A stable deterrence can theoretically only be achieved when the costs each actor can impose on the other are sufficiently high and unacceptable. The significance of the Brito & Intriligator model lies in its ability to identify levels of weapon availability that lead to unstable situations. From this perspective, even unilateral disarmament policies can be more unstable. In other words, for example, disarmament also would require coordination and organization.

Moreover, at the time this article is being written, we are experiencing a phase of technological advancement that exacerbates rivalries between states. As elucidated by the analytical models of conflict developed by Jack Hirshleifer and other economists, the advantage in military technology can increase the likelihood of armed conflicts.¹ In this historical phase, we are witnessing a pervasive diffusion of technology, even in the military domain. Consider as current examples the proliferation of drones and, more recently, the prospective applications of artificial intelligence.

In this context, it is worth noting the legacy of Nobel Laureate Thomas Schelling. Schelling who had developed the concept of "credible threat," in his famous book *The strategy of conflict* in 1960, only one year afterwards extensively discussed the necessity for arms control in his book "Strategy and Arms Control" (co-authored with M.H. Halperin in 1961). In this work, Schelling and Halperin underscore that technological advancements in the arms sector necessitate agreements between rival nations on arsenal management. For such agreements to be credible, continuous exchange of information and communication is indispensable. Mutual control of arsenals would help mitigate incentives for pre-emptive strikes, which arise from technological advances perceived as providing a significant battlefield advantage. In essence, according to Schelling and Halperin, an arms control regime would yield greater security benefits than unconditional rearmament. In simpler terms, they propose a cooperative model between rival states that acknowledges the critical shortcomings of a simplistic deterrence framework, ultimately fostering greater peace. History unequivocally supports this perspective, considering that nuclear deterrence would not be viable without the various SALT and START agreements, which involved reciprocal concessions in information sharing.

¹ See among others Hirshleifer (1988), Skaperdas (1992), Skaperdas and Syropoulos (2007).

Trends in military trends

In any case, it is almost unnecessary to reiterate that the trend towards increased military engagement and rearmament that we are witnessing is not a recent development, as it began well before 2022. From a strategic standpoint, it can be attributed more precisely to the early stages of Russian aggression against Ukraine, notably the invasion of Crimea in 2014. In the subsequent months, at the NATO summit held in Wales in September 2014, a Readiness Action Plan was approved along with the establishment of the 'NATO rule' requiring member states to allocate 2 % of GDP for defence. Less publicized but more significant was the decision to allocate a constant proportion (20 %) of defence budgets to the acquisition of new equipment and weapon systems. It can be argued that the NATO summit clearly marked the beginning of a new era in global military spending trends. This summit catalysed a global rearmament effort and reshaped the structure of military expenditures in the following years. This impact is evident in official military spending data, particularly in the notable increase in expenditures on new equipment. This surge in demand for military equipment has bolstered the defence industry, consolidating trends and characteristics that had been developing in previous years, including: (i) the 'dual-use' engagement of firms in both military and civilian sectors; (ii) a greater propensity for disclosing innovative military technology; (iii) increased productive interdependence between producer and client countries; and (iv) a less concentrated market.

Then, a primary characteristic is 'dual-use,' where many major global armaments companies operate in both military and civilian sectors. For example, Boeing is a global leader in commercial aircraft production while also being a major defence contractor for the United States, manufacturing military aircraft. A second characteristic is the increased openness of military firms to disclose their innovations. Traditionally, during the Cold War, the military industry was marked by deep secrecy, as exemplified by the Invention Secrecy Act of 1951 in the United States, which restricted patent grants for inventions considered a national security risk. This trend towards less secrecy is evolving, evidenced by the significant rise in military patent applications in recent years, facilitating greater disclosure of new technologies. As noted by Stowsky (2004), the digital information era has fostered a 'shared innovation' approach, expanding dual-use technologies.

The broader dissemination of military-applicable technology has also facilitated global production dispersion. Emerging countries have become producers and exporters of military equipment. For example, Turkish drones such as the Baykar have been utilized in various conflicts and are now available to several emerging countries such

as Albania, Bangladesh, Ethiopia, and Morocco. Data from the independent research centre SIPRI indicates significant increases in arms exports from dynamic and complex emerging economies like China and India, with rises of approximately 200% from 2010 to 2023 compared to 1996 to 2009. Other rapidly growing exporters include South Korea (+363%), Turkey (+572%), Jordan (+473%), and Brazil (+146%).

The global diffusion of military technology is facilitated not only by the dissemination of human capital and new technologies but also by offset clauses in arms trade contracts, which have become a significant component of international arms deals. Offsets involve the seller engaging in activities that ‘compensate’ the purchasing country, often through joint production or subcontracting. Direct offsets include the production of goods and services related to the purchased military equipment, while indirect offsets involve unrelated supplies. For example, the South Korea-AgustaWestland agreement for the Lynx helicopter included South Korea producing the engines, exporting them to the UK for assembly, and then selling the completed Lynx back to South Korea and other countries. Offsets frequently result in production relocation from the supplier to the purchaser. Despite their economic inefficiency, which can prevent economies of scale, offsets facilitate contract negotiations and help maintain close ties with client countries.

The EU common defence policy: myth or reality?

In spite of recurring talks and declaration about common defence policy in EU, it must be also noted that the war between Russia and Ukraine has not augmented cooperation between EU countries in defence. Before the war between Russia and Ukraine, defence in the EU appeared to be moving towards a more integrated and distinctly European institutional framework. This perspective of a common defence would signify a significant evolution compared to recent history. Under the NATO umbrella, security in Europe had long been the mere aggregation of the defence systems of Member States. While cooperation among European countries from a strategic standpoint was acknowledged, the military budgets and practices of Member States remained separate to safeguard their sovereignty in defence policy, unlike in other critical areas such as monetary policy and international trade regulation. Larger countries tended to protect and subsidize their national arms producers, while smaller countries predominantly relied on imports from allied nations. Efforts towards a common European foreign policy and integration in security and defence can be traced back to the 1950s, with the unsuccessful attempt to establish a European Defence Community. As mentioned earlier, the Cold War system appeared to be evolving in recent years. The Maastricht Treaty represented a significant stride towards establishing a Common Foreign and Security Policy (CFSP), and

further progress was made with the Amsterdam Treaty, which took effect in 1999 and established a High Representative for the CFSP. At a subsequent summit in Thessaloniki in 2003, EU member states adopted a document outlining the principles and security policy of the EU. It reaffirmed the necessity for a more active, coherent, and capable EU to pursue its strategic objectives and play a role as a global actor.

In 2009, the Common Security and Defence Policy (CSDP) came into force, as outlined in Title V of the Lisbon Treaty, which includes a mutual defence clause among member states. Therefore, the CSDP serves as the framework for cooperation among European states in the field of defence. In the context of institutional evolution, greater cooperation within the military industry began to take shape. In July 2013, the Commission published the Communication "Towards a more competitive and efficient defence and security sector," outlining a future roadmap with three main objectives: (i) Establishing an integrated internal defence market, enabling European companies in the military sector to operate without discrimination across all Member States. (ii) Implementing a secure EU procurement regime for the armed forces of all Member States. (iii) Launching a European research program covering both security and defence. Since then, initiatives aimed at enhancing integration and cooperation in military affairs have gained momentum. In March 2015, the Council initiated a revision of the Athena mechanism, dedicated to funding common costs for EU military operations. In November 2016, the Commission proposed a Defence Action Plan (DAP), pivotal to which was the establishment of a multi-year financed European Defence Fund (EDF), along with strengthening the Single Market for defence.

In December 2017, the EU Council established Permanent Structured Cooperation (PESCO). Unlike previous initiatives, PESCO carried higher expectations, aiming to pave the way for a cohesive European defence policy with binding obligations and commitments for participating countries. Within PESCO, Member States are expected to develop joint operational capabilities in the military field. Two key instruments managed under PESCO include: (i) The Coordinated Annual Review on Defence (CARD), overseen by the European Defence Agency (EDA), monitoring military spending at both Member State and EU levels. (ii) The European Defence Fund, crucial for enhancing European defence capabilities. Regulation (EU) 2018/1092 on the European Defence Industrial Development Program (EDIDP) further supports the capacity of the European defence industry. Significant progress in 2021 included the replacement of the Athena mechanism with the establishment of the European Peace Facility by the Council, aimed at funding EU external actions. Its endowment saw substantial growth between 2022 and 2023.

On 21 March 2022, one month into Russia's invasion of Ukraine, the Council of the EU adopted a new action plan known as the 'Strategic Compass'. Described as an 'ambitious but achievable plan to strengthen [the EU's] security and defence policy by 2030', it aims to enhance and integrate expenditures on defence equipment, bolster international partnerships, and improve the EU's threat assessment and crisis responsiveness. Many objectives and propositions of the Strategic Compass directly target the EU's security and defence industry, specifically the European Defence Technological and Industrial Base (EDTIB). Proposed measures include increased investments in key technologies, selective protectionism, and reducing foreign dependence to improve the EU's security of supply and strengthen critical defence supply chains. By securing access to critical components, technologies, resources, and services like Maintenance, Repair and Operations (MRO), the Strategic Compass aligns with the EU's long-term strategic goal of enhancing the EDTIB.

However, despite recent progress and developments, decisions regarding military spending policies have remained primarily within the purview of the Member States. European disunity and fragmentation are notably pronounced in the military industry, often described by terms like 'duplication' and 'multiplication' due to the lack of integration among Member States, resulting in inefficiencies across numerous military industrial projects.

A prominent example is in combat aircraft development: France and Germany have collaborated on a next-generation fighter-bomber, while Italy, the Netherlands, and the United Kingdom are engaged in the Lockheed Martin F35 Joint Strike Fighter project. Sweden continues work on the Gripen fighter, also selected by the Czech Republic, Hungary, and Croatia. Additionally, Italy and the UK embarked on a joint venture for a sixth-generation fighter (BAE Systems' Tempest) in 2019. Mogherini and Katainen (2017) highlighted significant disparities within the EU, with 17 main battle tanks, 29 types of frigates, and 20 combat aircraft, compared to 1, 4, and 6, respectively, in the United States. Hartley (2020) further underscored the fragmentation with 180 different types of military equipment in Europe compared to 30 in the United States. Despite initiatives like Airbus and MBDA, the European military industrial landscape still revolves around 'national champions' with numerous national subcontractors.

Member States continue to rely on national industrial champions, often state-owned or closely allied with specific partners. Over recent years, some European 'national champions' have also emerged as leading exporters in the global arms market. Despite recent progress, the EU's defence industry remains marked by costly duplication in research and development (R&D) programs and limited production scales tailored to in-

dividual Member State markets. This lack of economies of scale leads to higher costs, hindered interoperability, fragmented R&D progress, and increased maintenance and operational expenses that burden defence budgets.

More integration, reduced spending, and increased efficiency. In brief, the disunity and fragmentation within the EU's military sector result in significant resource wastage. Therefore, it is unsurprising that both at the institutional level and in various studies (such as Fontanel and Smith (1991), Guyot and Vranceanu (2001), Hartley (2003), and Kollias (2008)), there has long been a shared recognition of the inefficiencies in current European defence systems. These studies also highlight the potential gains in efficiency and technology that could be achieved by leveraging economies of scale through a European reallocation of defence procurement elements. For instance, a study by the Bertelsmann Stiftung (2017), focusing solely on land forces and employing rigorous and conservative salary hypotheses, estimated potential annual savings between 3 and 9 billion euros. Similarly, a study published by the European Parliamentary Research Service at the end of 2020² used Data Envelopment Analysis (DEA) methodology to evaluate the efficiency of defence systems across member states, quantifying the waste of resources and resulting inefficiencies in operational capacity.

First, defence expenditure per capita was used as an input, and the number of deployed troops as an output. In a separate analysis, military equipment procurement was considered as input, with research and development (R&D) expenditure serving as a proxy for the future quality of equipment. Specifically, the ratio of 'deployable' troops to total military personnel (especially among land forces) was employed as an input, representing the number of troops that could be rapidly deployed in conflict out of the total. This ratio was interpreted both as a measure of a country's effective military capacity and its commitment to maintaining a well-functioning army.

However, according to the European Defence Agency in 2017, the average share of deployable forces among the EU27 was only 25.8 % of total land forces. The analysis covered data from 2005 to 2017, during which France and Italy deployed the most troops. Assessing efficiency in producing this output quantified the aggregate 'waste' of EU member countries. On average during this period, member states wasted approximately 46 % of their defence expenditure on troop deployment, totalling an estimated €32 billion in current waste. These findings were robust across various analyses.

In the second exercise, member states on average wasted about 50 % of their defence expenditure on military procurement, totalling an estimated €12.7 billion during the

² Report available at [https://www.europarl.europa.eu/RegData/etudes/STUD/2020/654197/EPRS_STU\(2020\)654197_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2020/654197/EPRS_STU(2020)654197_EN.pdf)

period under review. Both results underscored the potential benefits of further European integration in troop deployment. In summary, the analysis revealed that military spending based on national defence structures is inherently inefficient. Conversely, enhanced integration could lead to superior efficiency, ultimately resulting in reduced military expenditures.

As noted above, the war between Russia and Ukraine has not augmented cooperation between EU countries in defence projects. The reason is simple: war is a shock that requires short-term or very short-term responses, whereas integration is a medium- to long-term process with high transaction costs. In the short term, governments rely on existing institutions and structures, so increasing spending tends to amplify the existing fragmentation. Putin's regime-led war, while providing a significant stimulus for increased military expenditure, could plausibly have the effect of delaying rather than promoting the realization of a common defence. While the first point is not new, as military spending began increasing in 2015 and accelerated from 2022, the second point warrants reflection as it is presented as the mechanism to foster defence integration among EU countries. To this end, the objectives of the current plan of the Commission foresee an increase to 40% in collaborative projects in military technology by 2030 and intra-EU defence sector exchanges amounting to at least 35 % of the total defence market. However, these goals currently appear challenging to achieve. As noted above, the fragmentation of European military spending has been a subject of debate for several years, but the war in Ukraine appears to have setback integration processes. For instance, according to data from the European Defence Agency, in 2022, the commitment to joint projects in military technological innovation amounted to only 237 million euros, a modest share of 6.8% compared to the total of 3.5 billion euros and a decrease from 2021. In summary, the rearmament following the escalation of the war in Ukraine has not led to greater integration of the military industry.

There is another specific issue that makes further integration unfeasible in the short and medium term, namely the non-EU ownership of several EU-based defence companies. As noted in Kleczka et al. (2024), on average, approximately 25-30% of the largest EU defence firms are owned by non-EU investors. However, these foreign shareholdings are typically dispersed among numerous investment funds and financial services firms, making them less critical from a strategic standpoint. Ownership by systemic or geopolitical adversaries is virtually non-existent. Some strategically important firms have become subsidiaries of non-EU defence companies, primarily from the US and UK, but this does not necessarily threaten the EU's defence supply security. Nevertheless, there is an increasing trend where (1) non-EU firms participate in mergers and acquisitions

that are highly relevant to the EU defence industry, and (2) non-EU firms win a larger share of defence-related EU tenders. An analysis of four multinational military aircraft programs further illustrates that the EU's defence research and development (R&D) and production capabilities may depend significantly on external suppliers.

Conclusion

In summary, the current EU rearmament does not seem to produce security in the way European leaders discuss it, namely as a pure public good. A pure public good in security would be non-rival and non-excludable for all European citizens. However, the fallacies of the current rearmament outlined above suggest that this ideal scenario is not being achieved. Security instead appears more like a quasi-public good, if not a club good, introducing inequalities in its provision among EU citizens. From a strategic perspective, if security is treated as a quasi-public good, the interaction between rival states resembles a Colonel Blotto game, undermining the notion of rearmament as a tool for static deterrence based on a pure Nash-like game of deterrence. Looking at the political implications, the fragmentation of EU military engagement further underscores concerning inequalities among citizens. In short, the current rearmament efforts require serious reconsideration and a stronger push towards enhanced EU integration on defence issues.

References

- Boulding K. (1962). *Conflict and Defence*. Harper.
- Caruso R. (2007). Continuing Conflict and Stalemate: A Note. *Economics Bulletin*, 4(17), 1–8.
- Caruso R., Jun, X. (2017). *War, Stalemate and Military Spending*. Paper presented at the 2016, American Economic Association Meeting.
- Fontanel, J., Smith, R. (1991). A European Defence Union? *Economic Policy*, 13(3), 393–425.
- Guyot, M., Vranceanu, R. (2001). European defence: the cost of partial integration. *Defence and Peace Economics*, 12(2), 157–174.
- Hartley K. (2020). Trans-European arms companies and industries. En *The Economics of the Global Defence Industry*. Routledge.
- Hartley, K. (2003). The future of European Defence Policy: An Economic Perspective. *Defence and Peace Economics*, 14(2), 107–115.
- Hirshleifer J. (2001). *The Dark Side of the Force, Economic Foundations of Conflict Theory*. Cambridge University Press.
- Kleczka, M., Vandercruysse, L., Buts, C., & Du Bois, C. (2023). The Spectrum of Strategic Autonomy in EU Defence Supply Chains. *Defence and Peace Economics*, 35(4), 427–447. <https://doi.org/10.1080/10242694.2023.2180588>
- Kollias, C. (2008). A Preliminary Investigation of the Burden Sharing Aspects of a European Union Common Defence Policy. *Defence and Peace Economics*, 19(4), 253–263.
- Intriligator M.D., e Brito D.L. (1984). Can Arms Race lead to Outbreak of war? *Journal of Conflict Resolution*, 28(1), 63-84.
- Maoz, Z. 2005. *Dyadic MID Dataset* (version 2.0). <http://psfaculty.ucdavis.edu/zmaoz/dyadmid.html>.
- Nakao, K. (2020). Rationalist Explanations for Two-Front War. *Peace Economics, Peace Science and Public Policy*, 26(4).
- Quackenbush, S. L. (2006). Not Only Whether but Whom: Three-Party Extended Deterrence. *Journal of Conflict Resolution*, 50(4), 562-583.
- Schelling T. C., & Halperin M. H. (1961). *Strategy and Arms Control*. Twentieth Century Fund.
- Skaperdas, S. (1992). Cooperation, Conflict, and Power in the Absence of Property Rights. *American Economic Review*, 82(4), 720-739.

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