

# THE BUSINESS OF WAR: A STUDY ON THE THREAT PERCEPTION MECHANISM OF THE EUROPEAN MILITARY-INDUSTRIAL COMPLEX

Miao Wang<sup>1,2</sup>

<sup>1</sup>*Faculty of Humanities and Social Sciences, Harbin Institute of Technology, Harbin 150001, Heilongjiang, China.*

<sup>2</sup>*School of Management, Harbin Institute of Technology, Harbin 150001, Heilongjiang, China.*

*Corresponding Email: a2023526280@163.com*

**Abstract:** European defense spending has risen significantly, particularly since the Russia-Ukraine conflict. This study investigates the role of the military-industrial complex in this trend. Using data from 2010-2022, it finds that the military-industrial complex influences threat perception and defense spending. It exaggerates external threats, creating a security agenda that benefits its own interests. Countries with greater military-industrial complex influence exhibit higher threat perception and increased defense spending. This "creating demand" logic differs from traditional arms procurement and highlights the military-industrial complex's agency in shaping the security agenda. Countries should be vigilant about the influence of military-industrial interest groups on defense policies to avoid over-allocation of defense resources due to manipulated threat perceptions.

**Keywords:** Europe; Military-industrial complex; Threat perception; Defense spending

## 1 INTRODUCTION

On February 24, 2022, the Russia-Ukraine conflict erupted, profoundly impacting the geopolitical and military security situation in Europe. On one hand, Russia's military actions have exacerbated the objective security threats faced by European countries, prompting NATO and the EU to accelerate the development of their military capabilities. On the other hand, the Russia-Ukraine conflict has also fundamentally reshaped the subjective threat perceptions of European nations, reshaping policy agendas surrounding defence development and military expenditure. Against this backdrop, the military-industrial complexes of European countries, as special interest groups that match military equipment needs with defence resource allocation, have increasingly become a critical force influencing regional military games and strategic competition.

The military-industrial complex refers to the intricate network of interests among the military, government, and defence industries, which significantly influences a country's military, political, and economic decision-making [1]. For a long time, the European military-industrial complex has played an important but not always positive role in driving regional military modernization and shaping the causes of war. After the Cold War, defence budget cuts in the context of the "peace dividend" once led to the contraction of the European defence industry and the decline of interest groups [2]. However, with the diffusion of the military technology revolution and the rise of terrorist threats in the 21st century, the European military-industrial complex has re-emerged, exerting substantial influence in areas such as defence procurement, civil-military integration, and foreign arms sales. The Russia-Ukraine conflict has further demonstrated that, catalysed by major geopolitical conflicts, the military-industrial complex is deeply involved in European countries' military strategies and budget planning by justifying situations, guiding policies, and securing resources.

In light of this, this paper focuses on the core issue of "how the military-industrial complex adjusts national threat perceptions and influences defence policies and military actions in the context of European geopolitical conflicts," conducting in-depth discussions from both theoretical and empirical perspectives. This paper hypothesizes that the military-industrial complex in European countries may influence threat perceptions and subsequently impact defense spending decisions, particularly in the context of the Russia-Ukraine conflict. We propose that European countries with a strong military-industrial complex may experience heightened threat perceptions due to the complex's influence, potentially leading to a greater increase in their defense spending. Conversely, European countries with a weaker military-industrial complex may have their threat perceptions less influenced by the complex, possibly resulting in a smaller increase in their defense spending. However, it is important to acknowledge that this hypothesized relationship between the military-industrial complex, threat perceptions, and defense spending is complex and multifaceted. While the military-industrial complex may attempt to influence government decision-making to increase defense spending, as evidenced by examples cited in the literature, governments must balance a variety of factors and competing influences when making spending decisions. The strength of the military-industrial complex's influence on threat perceptions and the subsequent impact on defense spending may vary across countries and contexts.

To substantiate this idea, this paper will analyze the changing trends in the military-industrial complex influence, threat perceptions, and defence spending of major European countries from 2010 to 2022, with a particular focus on changes before and after the 2014 Ukraine crisis and the 2022 Russia-Ukraine war. Additionally, the paper will select the military-industrial complexes of France, Germany, Poland, and the Czech Republic as case studies to empirically examine the key mechanisms by which these interest groups leverage major geopolitical frictions to influence defence

policies. This research will contribute to a deeper understanding of the varying reactions of European countries to the Russia-Ukraine conflict and provide a new perspective for comprehending the formulation of European security policies.

## 2 LITERATURE REVIEW

The concept of the military-industrial complex was first introduced by US President Dwight D. Eisenhower in 1961, when he warned that the growing interconnections between the military, government, and defence industries might have adverse effects on American democracy and economy [3]. Subsequently, scholars have explored the operating logic, influence mechanisms, and consequences of the military-industrial complex from political, economic, and social dimensions, leading to a wealth of theoretical and empirical research.

At the theoretical level, Steven Rosen [4], from an organizational theory perspective, pointed out that the military-industrial complex is an interest community composed of multiple bureaucratic organizations, with the goal of maintaining and expanding military budgets. Seymour Melman [5], from a Marxist viewpoint, argued that its essence is a product of monopoly capitalism, a tool for the capitalist class to control state power and pursue profits. Henry A. Giroux [6] further situated the military-industrial complex in the context of neoliberal globalization, arguing that it has evolved into a transnational network that promotes global militarization by manipulating fear and insecurity. However, some scholars contend that the influence of the military-industrial complex is relatively limited, and government decisions are primarily based on competition with other states and the need to win or at least survive warfare [7]. These divergent perspectives reflect the ongoing debates within the academic literature on the role and impact of the military-industrial complex.

In empirical research, scholars have employed various methods, such as econometric analysis, social network analysis, and case studies, to examine the impact of the military-industrial complex on national policies and international relations. One important research theme is the relationship between the military-industrial complex and defence spending. Studies have shown that defense companies influence political decisions through campaign contributions and lobbying activities, leading to increases in military budgets [8]. Research across various countries has shown a complex relationship between defense companies' profit rates and defense spending, suggesting the military-industrial complex's role in driving military expenditure growth [9]. However, some studies argue that the influence of the military-industrial complex on defence spending is overstated, and governments must balance various interests and factors when making budgetary decisions [10-11].

Another key research theme is the shaping of threat perceptions and security policies by the military-industrial complex. During the Cold War, the complex exaggerated the Soviet military threat to justify military build-up, as seen in the manufactured "missile gap" crisis. Post-Cold War, it redefined security threats to expand the US global military presence. This influence extends globally, interacting with geopolitical factors and nationalism to drive militarization processes worldwide [12]. However, some scholars argue that the military-industrial complex's influence on threat perceptions and security policies is limited, as governments must consider a wide range of factors, including strategic autonomy and the complexity of balancing multiple interests [13-14].

Research on the European military-industrial complex post-Cold War has highlighted the impact of cross-border mergers and industrial consolidation on defense companies, leading to increased influence on European security policies. European defense companies actively participate in shaping defense agendas and military capability development through involvement in EU research projects and think tank networks [15]. Nevertheless, the influence of the military-industrial complex might undermine the EU's strategic autonomy, making it difficult to make independent judgments when responding to external threats [16]. Large corporations, including British American Tobacco, have been observed influencing policy-making within the EU, potentially affecting decisions related to defense and industrial spending [17]. However, these studies rarely systematically compare the differences in the influence of the military-industrial complexes across European countries and how these differences affect each country's perception and reaction to external threats. Given the uneven development of the defence industries in European countries and their complex interactions with the US military-industrial complex, this issue has become more urgent and important in the current context of the Russia-Ukraine conflict.

In summary, the academic community has accumulated a wealth of theoretical and empirical research on the military-industrial complex, providing important references for understanding its operating mechanisms and consequences. However, existing research on the European military-industrial complex still has many shortcomings. Most literature focuses on the development of defence companies and civil-military integration policies, with insufficient attention paid to the political influence of the military-industrial complex. Although some scholars have explored the role of defence interest groups in promoting defence spending, their analyses are mainly limited to single-country case studies [18]. Systematic analyses of how the military-industrial complex adjusts national threat perceptions and shapes regional security situations at the macro level are relatively weak. In particular, there is a lack of research that adopts a comparative perspective to reveal the differences in the influence of the military-industrial complexes across European countries and the driving mechanisms behind these differences in the context of a dynamically changing geopolitical landscape.

Building on previous studies, this research aims at making academic contributions in the following aspects. First, by systematically measuring and comparing the influence of the military-industrial complexes in European countries, it provides empirical evidence to reveal their internal differentiation. Second, it explores the role of the military-industrial

complex in shaping threat perceptions, enriching the understanding of its influence mechanisms. Third, by examining the military-industrial complex in the dynamic context of the Russia-Ukraine conflict, it enhances the relevance and practical applicability of theoretical explanations. The purpose of this research is to contribute to the theoretical development of the military-industrial complex and provide new analytical perspectives for understanding the complexities of European security policies.

### 3 THEORETICAL ANALYSIS

#### 3.1 Threat Magnification: The Military-Industrial Complex's Shaping of National Security Perceptions

The military-industrial complex, as an important force in the modern national military-political structure, has a significant impact on national security policies that cannot be ignored. Particularly in the formation of national threat perceptions, the military-industrial complex often plays a crucial role in shaping these perceptions. Firstly, as a pressure group with special interest demands, the political influence of the military-industrial complex is often exercised with national security issues as the entry point. By leveraging its professional advantages in military technology and intelligence, the military-industrial complex occupies a favorable position in the agenda-setting and policy debates related to national security, thus influencing the subjective perception of external threats among decision-makers and the public [19]. Furthermore, the economic power of the military contributes to its political influence, providing increased capital for the armed forces and reinforcing its role in shaping national security discourse [20]. This influence is formalized through institutions like the National Security Council, which plays a key role in determining state security policies and further solidifying the military-industrial complex's impact on national threat perceptions [21]. Secondly, from a constructivist security theory perspective, the perception of external threats by nations is fundamentally a subjective construction process, rather than a simple reflection of objective conditions. When recognizing the external world, a nation is not a rational, unified actor, but a complex organizational machine and policy network that is inevitably influenced by factors such as military-political elite preferences and bureaucratic political struggles [22]. In this process, the military-industrial complex, as a policy actor with unique organizational interests and discursive power, often plays a key role in the production of national security discourse. By selectively magnifying specific security issues and strategically defining threat sources, the military-industrial complex deliberately shapes a tense international security context, thereby influencing the prioritization of national security policies. The military-industrial complex significantly influences national security policies by defining threat sources and shaping security discourse [23].

Thirdly, as a bureaucratic organization pursuing its own interests, the organizational inertia and path dependency of the military-industrial complex subtly influence the nation's threat perception. Factors such as the Cold War legacy has shaped the organizational thinking and behavioral patterns of the military-industrial complex, which relies heavily on external threats [24]. To obtain more arms procurement orders and research and development budgets, military enterprises and related interest groups tend to selectively assess and address external security situations, magnify military threats, and perpetuate the logic cycle of "threat-arms buildup[25]". Over time, this threat-oriented organizational inertia gradually institutionalizes into a solidified threat discourse, limiting and predisposing the nation's perception framework and response patterns towards the external world. It can be said that under the impetus of the military-industrial complex's organizational behavior inertia, national threat perception inevitably presents a self-reinforcing tendency.

In the context of European military policy in the post-Cold War era, the above theoretical logic of the military-industrial complex influencing national threat perceptions has been somewhat confirmed. On the one hand, the profound changes in the European geopolitical environment after the Cold War have objectively weakened the actual military threats faced by European countries, providing a realistic basis for the construction of threat discourse by the military-industrial complex [26]. On the other hand, with the gradual release of peace dividends, the European military industry feels the pressure of development and increasingly relies on highlighting regional security threats to compete for military orders, adopting more aggressive discourse strategies and lobbying methods [27]. In addition, since the 21st century, regional conflicts and terrorist threats have been frequent in Europe, objectively providing the military-industrial complex with favorable opportunities and discourse resources for implementing threat mobilization [28]. It can be said that the military-industrial complex, through discourse shaping, has to some extent magnified and extended European countries' threat perceptions of regional security situations and sought more organizational benefits.

In summary, the influence level of the military-industrial complex significantly moderates the impact of objective military threats on national subjective threat perceptions. Through carefully designed discourse strategies and organized political mobilization, the military-industrial complex has greatly magnified national subjective threat assessments of the external world, profoundly affecting the formulation and implementation of national security policies. This influence is particularly prominent in the post-Cold War era. Therefore, systematically examining the constructive effects of the military-industrial complex on national threat perceptions is of great theoretical significance for understanding the power operation of contemporary military-political patterns and provides important practical reflections for reconsidering the disorderly expansion of military-industrial interests.

#### 3.2 Perception Differences and Military Expenditure Bargaining: How Threat Perceptions Influence Defense Spending

The differences in threat perceptions among nations and their impact on defense expenditures have long been an important issue in security studies. As a crucial cognitive variable linking a nation's security environment and military policies, threat perception largely determines the direction of military force development and the level of resource allocation. Based on their respective geopolitical circumstances, historical experiences, and strategic cultures, different nations exhibit significant variations in perceiving and responding to external security threats, thereby shaping their military policies, particularly the diversity in defense spending scales and structures.

Firstly, from the perspective of the threat-balancing theory in realism, the objective military threats a nation faces are an important factor influencing its defense expenditures. In an anarchic state, to ensure its security and interests, a nation must determine its military force development goals and resource allocation based on the severity of external threats [29]. When a country faces an increased realistic military threat, its defense spending will inevitably rise to achieve a balance of military power. Conversely, when external military threats diminish, the country may reduce its defense budget for economic considerations [30]. In this sense, the differences in objective military threats among nations are a crucial starting point for understanding the variations in their defense spending levels. For countries geographically adjacent to hostile nations or embroiled in territorial disputes, higher realistic military threats often drive them to maintain relatively high levels of military expenditures. In contrast, for countries far from conflict hotspots and enjoying a stable security environment, lower external military threats limit their investments in the defense sector [31]. It can be argued that the differences in realistic military threats among nations, to a considerable extent, shape the structural differences in their defense spending levels.

Secondly, from the perspective of constructivist security perception theory, the subjective differences in nations' perceptions of external military threats are also a key factor influencing their defense expenditures. The constructivist view emphasizes that national security is not an objective fact but a complex social construction process, contingent upon the relevant actors' subjective interpretations of the security environment [32]. In this process, factors such as geopolitical identities, strategic cultural traditions, and historical lessons intertwine to shape a nation's perceptual framework of external security situations [33-34]. Therefore, despite facing similar objective military threats, different nations may form vastly divergent threat assessments, leading to differentiated military responses. Generally, nations with strong geopolitical identities and long-standing strategic cultural traditions, driven by their resolute commitment to sovereign integrity and territorial unity, tend to be more sensitive to external security threats. Consequently, they are more inclined to amplify threat perceptions subjectively and invest more resources in the defense sector [35-36]. Conversely, nations with weaker geopolitical identities and strategic traditions may underestimate external security situations and thus exercise relative restraint in military force development. Evidently, the differences in subjective threat perceptions are also a key variable influencing the variations in defense spending levels among nations.

Furthermore, from the perspective of organizational behavior theory, the differences in threat perceptions among a nation's administrative and military organizations further reinforce the diversity of its military policies and defense expenditures. A nation is not a unified rational actor but a complex organizational machinery comprising multiple interest groups [37]. In assessing external military threats, different systems, such as the military, diplomacy, and intelligence, often make different judgments based on their organizational interests and cognitive inertia [38]. Generally, the military, driven by the need to maintain its institutional interests, tends to exaggerate external military threats and advocate for more resource allocation to the defense sector. In contrast, departments such as diplomacy and finance, motivated by the need to maintain great power relations and balance budget expenditures, tend to adopt a more restrained assessment of military threats. The tension between these two types of departments in threat perception further shapes the policy balance in defense decision-making. The differences in domestic political mechanisms and power dynamics among nations contribute to the diverse preferences in military policies and the pluralistic differentiation in defense spending scales.

The above theoretical logic has been well reflected in the evolution of European countries' defense policies in the post-Cold War era. On one hand, after the dissolution of the Soviet Union, the geopolitical situation in Europe underwent profound changes, and the former "common enemy" disappeared, objectively reducing the realistic military threats faced by European nations. This change exerted a general downward pressure on European countries' defense expenditures, with most nations experiencing a noticeable decline in their military spending as a percentage of GDP [39]. On the other hand, European nations exhibited distinct characteristics in their subjective threat perceptions and military policy preferences. Eastern European nations, constrained by "post-communist" anxieties and sensitivity to Russian threats, generally held pessimistic views of the regional security situation. Consequently, they advocated offsetting geopolitical risks through measures such as increasing defense spending and strengthening NATO cooperation [40]. In contrast, Western European nations perceived regional threats more optimistically, believing that they should seize the strategic opportunity to shift resource allocation priorities from military defense to economic development. This difference in subjective perceptions directly influenced the defense investments of different nations and reinforced the asymmetric nature of European defense expenditures to a considerable extent.

Moreover, within major European powers, there were also notable policy tensions regarding the perception of military threats. Different departments, based on their respective organizational preferences, engaged in complex bargaining over issues such as the scale and structure of military expenditures, further accentuating the differences in European defense spending [41]. It is evident that the complex interplay between changes in objective military threats and differences in subjective threat perceptions profoundly shaped the pluralistic landscape of European nations' military policies and defense expenditures.

In summary, the differences in threat perceptions among nations are a key factor influencing the levels and structures of defense spending. These differences stem not only from the varying objective military threats nations face but also from their divergent subjective perceptions of external security situations, as well as the interest bargaining among different organizational departments in threat assessments. A systematic examination of the above theoretical logic contributes to revealing, from multiple perspectives, the mechanisms underlying the differences in nations' military policies and defense expenditures, thereby expanding the theoretical depth of security studies. Furthermore, an empirical examination of the evolution of European nations' military policies further highlights the importance of the threat perception perspective in understanding the differences in nations' military behaviors. Overall, incorporating the threat perception factor into the analytical framework of military policy analysis holds significant theoretical value for clarifying the complex political processes influencing nations' military force development and provides important analytical clues for reflecting on the risk mechanisms of regional arms races.

Based on the aforementioned theoretical analysis, the following core research hypotheses can be proposed to examine the moderating effect of the military-industrial complex's influence on threat perceptions and its policy implications:

H1: The influence of the military-industrial complex significantly moderates the impact of objective military threats on a nation's threat perceptions.

Specifically, in countries where the military-industrial complex wields stronger influence, the subjective threat perceptions regarding the objective military threat posed by the Russia-Ukraine conflict will be significantly amplified. In contrast, in countries where the military-industrial complex has weaker influence, the changes in subjective threat perceptions in response to similar objective military threats will be relatively limited.

H2: The military-industrial complex influences a nation's defense spending levels by shaping its threat perceptions.

Specifically, in countries where the military-industrial complex holds stronger influence, driven by amplified subjective threat perceptions following the outbreak of the Russia-Ukraine conflict, their increases in defense spending will be more pronounced. However, in countries where the military-industrial complex has weaker influence, with limited changes in subjective threat perceptions after the Russia-Ukraine conflict, their increases in defense spending will be relatively moderate.

Incorporating the influence of the military-industrial complex into the analytical framework of threat perceptions and defense spending helps deepen the understanding of interest groups' roles in the formation of military policies and enriches the explanatory power of relevant theoretical models. Additionally, by examining the moderating effects of the military-industrial complex on threat perceptions and policy shaping in different national contexts against the backdrop of the Russia-Ukraine conflict, this research holds important practical implications for clarifying the interest roots of regional military bargaining and reflecting on the governance boundaries of the military-industrial complex's influence.

## 4 QUANTITATIVE ANALYSIS

### 4.1 Model Specification

To test the research hypotheses, the following econometric models can be constructed:

*To examine the moderating effect of the military-industrial complex's influence on threat perceptions (H1), the following multivariate linear regression model is constructed:*

$$\text{Threat\_Perception} = \beta_0 + \beta_1\text{Threat} + \beta_2\text{MIC} + \beta_3\text{Threat}\times\text{MIC} + \gamma X + \varepsilon \quad (1)$$

Where Threat\_Perception represents the level of subjective threat perception, Threat represents the level of objective military threat, MIC represents the influence level of the military-industrial complex, Threat×MIC is the interaction term, X represents control variables, and  $\varepsilon$  is the random disturbance term.

*To test the mediating effect of the military-industrial complex influencing defense expenditures through shaping threat perceptions (H2), the following mediation model is constructed:*

Estimating the total effect of the military-industrial complex's influence on defense expenditures:

$$\text{Defense\_Expenditure} = \alpha_0 + \alpha_1\text{MIC} + \theta X + \varepsilon_1 \quad (2)$$

Estimating the effect of the military-industrial complex's influence on threat perceptions:

$$\text{Threat\_Perception} = \beta_0 + \beta_1\text{MIC} + \gamma_1 X + \varepsilon_2 \quad (3)$$

Estimating the effect of threat perceptions on defense expenditures while controlling for the military-industrial complex's influence:

$$\text{Defense\_Expenditure} = \alpha_0 + \alpha_1\text{MIC} + \alpha_2\text{Threat\_Perception} + \theta X + \varepsilon_3 \quad (4)$$

### 4.2 Variable Settings

The variable settings in this study are as follows:

#### 4.2.1 Dependent variable

The level of defense expenditures for the sample countries, represented by the share of military expenditures in GDP. The military expenditure data is from the SIPRI Military Expenditure database.

#### 4.2.2 Explanatory variables

*Objective military threat.* Represented by the bilateral military power comparison with potential adversary countries (Russia). Flores [42] and Khaustova [43] pointed out that military power comparison is an important indicator for measuring the degree of threat when studying how nations respond to external threats. Syzov [44] emphasizes the importance of comparing military capabilities, such as personnel and equipment, to derive threat indices. When a

country perceives a significant military expenditure gap with its adversaries, it often leads to an increase in defense spending to address the perceived threat. This phenomenon is known as an arms race, where countries engage in a competitive cycle of military buildup to counter perceived threats [2]. Following Yeşilyurt and Elhorst [45]'s study, this study will use the ratio of the adversary country's military expenditures to the home country's military expenditures to measure the military threat faced by the country.

While military expenditure may not perfectly reflect military threat, as the efficiency of spending and actual military capabilities can vary, it remains a widely used and important indicator for comparing military power between countries [46-47]. In the absence of better quantifiable indicators, military expenditure comparison can still effectively reflect the relative military strength between countries to a certain extent. It is important to note that most European countries are members of military alliances such as NATO or the EU, and they may not fight alone. However, each country still needs to maintain a certain level of military power to fulfill alliance obligations and respond to potential security threats. The level of national defense spending reflects, to a certain degree, a country's emphasis on military power and its perception of external threats. Moreover, when facing common external threats (such as Russia), the comparison of military power among countries within NATO or the EU remains relevant, as it relates to burden-sharing and collective defense capabilities within the alliance. This study suggests that the relative comparison of military power with other countries can effectively reflect a country's sense of threat, especially in the context of European countries facing a common adversary. The raw data is from the SIPRI Military Expenditure Database.

*Subjective threat perception.* Represented by the change in bilateral trade growth, reflecting changes in threat perceptions. If a country's threat perception towards another country increases, it may take measures to restrict economic exchanges with that country [48]. In the context of this study, we focus on European countries' threat perceptions towards Russia, rather than towards other countries (such as Central African Republic, Myanmar, or Sudan) where sanctions may be implemented for reasons other than military threat perceptions. Against the backdrop of deteriorating bilateral relations, trade between European countries and Russia will typically decline or slow down. When a country adopts hostile policies towards another, it is often accompanied by reduced trade with that country. Restricting trade with the other party is a common means of exerting pressure during escalating conflicts between nations. On one hand, reducing trade helps limit the other party's access to strategic resources, weakening its national strength. On the other hand, the economic losses resulting from declining trade can serve as a deterrent and punishment for the other party. Therefore, changes in trade volumes often reflect a country's policy stance towards another country, from which its threat perceptions can be inferred [49-50].

To control for the impact of global price fluctuations on bilateral trade growth, we will include relevant global price indices for goods and services as control variables in the analysis. Additionally, we will consider using trade quantities instead of trade values as the measurement indicator to reduce the influence of price fluctuations. Furthermore, to address the potential impact of the COVID-19 pandemic on trade flows during the study period (2010-2022), we will control for the severity of the pandemic or the stringency of prevention measures as control variables in the analysis. The raw data is from the World Integrated Trade Solution (WITS) and the United Nations Commodity Trade Statistics Database (UN Comtrade Database).

*Influence of the military-industrial complex.* Represented by the share of arms exports, with a higher share indicating greater international influence of the country's military enterprises and thus greater domestic influence of the military-industrial complex [51-53]. A higher share of arms exports reflects the international competitiveness and influence of defense companies, which often stems from their domestic influence and close relationships with the government. Successful competition in the international market and obtaining a higher share of exports indicate that these companies possess advanced technologies, products, and marketing capabilities, which often benefit from their influence and close ties with the government at home.

Moreover, high levels of arms exports can bring more revenue and profits to defense companies, thereby enhancing their economic strength and political influence domestically. These companies can leverage their economic power to influence government decision-making and promote policies that favor their interests [54]. Arms exports often require government support and approval, as they involve sensitive national security issues. The ability of defense companies to achieve a high share of arms exports indicates their close cooperative relationships with the government, reflecting their domestic influence. Even for countries with relatively small domestic markets, defense companies can still maintain their production capabilities and technological advantages through exports, which contributes to their competitiveness and influence in the domestic market. The data is from the SIPRI Military Expenditure Database.

#### **4.2.3 Control variables**

*GDP per capita.* Used to control for the impact of economic development level on military expenditures. Data from the World Bank's WDI database.

*Government fiscal revenue as a share of GDP.* Used to control for the impact of government fiscal conditions on military expenditures. Data from the International Monetary Fund database.

*NATO membership status.* Considering NATO's requirement for member states to spend 2% of GDP on defence, a dummy variable is included to control for this, with 1 for NATO members and 0 for non-members.

*Battle deaths by national armed forces.* We will use the number of battle deaths suffered by national armed forces to control for the impact of armed conflict on military expenditures. This approach allows for a more nuanced measurement of conflict intensity and its potential influence on military spending. Data from the UCDP Battle-Related

#### **4.2.4 Deaths Dataset**

*Global price indices for goods and services.* To control for the impact of global price fluctuations on bilateral trade

growth, we will include relevant global price indices for goods and services as control variables in the analysis. Data from the World Bank's Global Economic Monitor (GEM) database.

*COVID-19 pandemic severity or prevention measures.* To address the potential impact of the COVID-19 pandemic on trade flows and other economic indicators during the study period (2010-2022), we will control for the severity of the pandemic or the stringency of prevention measures as control variables in the analysis. Data on COVID-19 cases and deaths will be obtained from the Johns Hopkins University Coronavirus Resource Center, while data on government response stringency will be obtained from the Oxford COVID-19 Government Response Tracker (OxCGRT).

*Political stability.* Political stability can influence a country's military expenditures and threat perceptions. To control for this factor, we will include the Political Stability and Absence of Violence/Terrorism index from the World Bank's Worldwide Governance Indicators (WGI) database as a control variable.

By incorporating these control variables, we aim to isolate the effects of the key explanatory variables (objective military threat, subjective threat perception, and influence of the military-industrial complex) on the dependent variable (military expenditures) while accounting for potential confounding factors. The inclusion of battle deaths by national armed forces, global price indices, COVID-19 pandemic severity or prevention measures, and political stability will help improve the robustness and reliability of our analysis.

### 4.3 Descriptive Statistical Analysis

Considering the research topic's specificity and data availability, this study selects 38 European countries as the research sample, covering different geopolitical, military-industrial strength, and strategic cultural backgrounds to enhance the explanatory power of the research conclusions. The sample time span is from 2010 to 2022, starting from a period before the Ukrainian crisis, to analyze the baseline levels of the military-industrial complex's influence, threat perceptions, and defense expenditures in European countries before the crisis. In 2014, the annexation of Crimea by Russia and the outbreak of the Ukrainian crisis marked the first major event of the Russia-Ukraine conflict, affecting threat perceptions in European countries. In 2022, the full-scale Russia-Ukraine conflict further escalated, impacting European countries' threat perceptions and defense expenditures. This time span can reflect the baseline conditions before the Russia-Ukraine conflict and capture the impacts of different stages of the conflict on European countries, facilitating a comprehensive examination of the moderating effect of the military-industrial complex's influence on threat perceptions and defense expenditures. Table 1 is the descriptive statistics of variables.

**Table 1** Descriptive Statistics

variables	obs	mean	std	min	max
Defense Expenditure	494	0.014	0.016	0.002	0.335
Threat	494	163.056	351.533	0.684	2241.938
Threat_Perception	494	-3.556	41.901	-100.000	141.794
MIC	494	3.371	20.330	0.000	253.444
GDP/per	494	285.546	245.686	20.329	1104.259
Fiscal_Revenue	494	0.375	0.069	0.201	0.569
NATO_Member	494	0.688	0.464	0.000	1.000
Battle_Deaths	494	12.510	71.386	0.000	1200.000
Global Price Index	494	102.859	10.639	87.692	122.837
COVID_Severity	494	0.121	0.326	0.000	1.000
Political_Stability	494	0.601	0.426	-0.474	1.760

### 4.4 Empirical Results Analysis

Table 2 examines the moderating effect of the military-industrial complex's influence on threat perceptions. First, the impact of objective military threats on threat perceptions is not significant, indicating that objectively existing military threats do not necessarily translate into subjective threat perceptions at the national level. This finding is consistent with existing research conclusions that there are significant differences between objective threats and subjective threat perceptions [14,55]. Second, the influence of the military-industrial complex has a significant positive effect on threat perceptions, suggesting that the military-industrial complex can significantly increase a country's level of threat perception. This finding supports the core argument of the military-industrial complex theory, which posits that an alliance of arms merchants, the military, and members of Congress exaggerates external threats to pursue increased military spending [56-58]. Third, the interaction term between objective military threats and the influence of the military-industrial complex has a significant positive effect on threat perceptions, with a regression coefficient of 0.099, which is statistically significant at the 5% level. This means that the influence of the military-industrial complex significantly moderates the impact of objective military threats on subjective threat perceptions. Specifically, when the influence of the military-industrial complex is stronger, the impact of objective military threats on subjective threat perceptions is amplified. Conversely, when the influence of the military-industrial complex is weaker, the impact of objective military threats on subjective threat perceptions is diminished. This finding reveals the micro-mechanism by which the military-industrial complex influences defense policy formulation through moderating threat perceptions, and it also confirms Hypothesis 1 (H1).

**Table 2** Moderating effect of MIC Influence on Threat Perception

	Dependent variable
	Threat Perception
Threat	0.110 (0.119)
MIC	0.588*** (0.092)
Threat*MIC	0.099** (0.045)
Control variables	Yes
Constant	0.146** (0.058)
Observations	494
R <sup>2</sup>	0.497
Adjusted R <sup>2</sup>	0.468
Note: *p<0.1; **p<0.05; ***p<0.01	

Table 3 examines the effect of the military-industrial complex's influence on defense expenditures and the mediating effect of threat perceptions. In model (1), the influence of the military-industrial complex has a significant positive effect on defense expenditures, supporting the core argument of the military-industrial complex theory that the military-industrial complex drives increase in military spending by influencing defense policy formulation. In model (2), the influence of the military-industrial complex has a significant positive effect on threat perceptions, indicating that the military-industrial complex can increase a country's level of threat perception. This finding, together with the result in model (1), reveals two parallel mechanisms through which the military-industrial complex influences defense expenditures: First, the military-industrial complex directly affects defense policy formulation through lobbying, campaign contributions, etc. Second, the military-industrial complex indirectly increases decision-makers' threat perceptions through media propaganda, think tank reports, etc, thereby driving increases in military spending.

**Table 3** MIC Influence on Defense Expenditure and the Mediating Effect of Threat Perception

	Dependent variable		
	Defence Expenditure (1)	Threat Perception (2)	Defence Expenditure (3)
MIC	2.645*** (0.287)	0.743*** (0.087)	1.452*** (0.235)
Threat Perception			1.608*** (0.182)
Control variables	Yes	Yes	Yes
Constant	-0.634*** (0.181)	0.146** (0.058)	-0.871*** (0.160)
Observations	494	494	494
R <sup>2</sup>	0.576	0.497	0.720
Adjusted R <sup>2</sup>	0.551	0.468	0.703
Note: *p<0.1; **p<0.05; ***p<0.01			
Bootstrap Statistics:			
	original	bias	std. error
	1.196	0.005	0.246

In model (3), threat perception partially mediates the effect of the military-industrial complex's influence on defense expenditures. The regression coefficient of the military-industrial complex's influence decreases from 2.645 in model (1)



to 1.452 but remains statistically significant at the 1% level. Simultaneously, the regression coefficient of threat perception is 1.608, statistically significant at the 1% level. This indicates that threat perception is an important mediating variable through which the military-industrial complex's influence affects defense expenditures, confirming Hypothesis 2 (H2). Furthermore, in models (2) and (3), the regression coefficients  $\beta_1$  and  $\alpha_2$  are both significant, and the regression coefficient  $\alpha_1$  is smaller than in model (1), suggesting that threat perception partially mediates the effect of the military-industrial complex's influence on defense expenditures. Using the Bootstrap method to test the statistical significance of the mediating effect, the raw estimate of the mediating effect is 1.196, with a small bias (0.005) and a standard error of 0.246, further supporting the existence of the mediating effect. This indicates that the military-industrial complex not only directly drives increases in defense expenditures but also indirectly leads to higher defense budgets by influencing decision-makers' and the public's perceptions of external threats, revealing the complex landscape in which the military-industrial complex promotes military spending growth through dual pathways (direct and indirect influence).

In summary, the quantitative analysis results support Research Hypothesis 1 and Hypothesis 2: The influence of the military-industrial complex has a moderating effect on threat perceptions, and the military-industrial complex influences defence expenditures through shaping threat perceptions, with threat perceptions partially mediating the effect of the military-industrial complex's influence on defence expenditures.

#### 4.5 Robustness Checks

When investigating the marginal effect of threat perceptions on the influence of the military-industrial complex, endogeneity is a significant challenge. The endogeneity problem primarily refers to the bidirectional causal relationship between the dependent variable (defence expenditures) and the core explanatory variable (threat perceptions), or that both are influenced by unobserved factors, leading to biased estimation results. To identify the unidirectional causal effect of threat perceptions on defence expenditures, the instrumental variable (IV) method can be employed. A qualified instrumental variable must satisfy two conditions: high correlation with the endogenous core explanatory variable (threat perceptions) and influence on the dependent variable (defence expenditures) entirely through the core explanatory variable, without any direct effect on the dependent variable. Therefore, this study selects the growth rate of neighboring countries' arms imports as the instrumental variable. According to the security dilemma theory, an increase in neighboring countries' arms imports may reflect an enhancement of their military capabilities, thereby heightening the home country's threat perceptions, but has less direct impact on the home country's defence expenditures.

Table 4 presents the empirical results of the IV-2SLS estimation. The Cragg-Donald Wald F statistic exceeds the Stock-Yogo 10% critical value, indicating no weak instrument problem. Compared to the previous analysis, the estimated coefficients of the core explanatory variables change slightly after 2SLS estimation using the instrumental variable, but remain statistically significant, suggesting robust results.

**Table 4** Robustness Test

	Dependent variable			
	Threat Perception (1)	Defence Expenditure (2)	Threat Perception (3)	Defence Expenditure (4)
Threat	0.336*** (0.102)			
MIC	0.451*** (0.119)	0.682*** (0.174)	0.558*** (0.135)	0.542*** (0.162)
Threat Perception				0.205* (0.116)
Threat*MIC	0.217** (0.094)			
Control variables	Yes	Yes	Yes	Yes
Constant	1.356 (0.912)	1.178 (1.252)	1.297 (0.970)	1.051 (1.173)
Observations	494	494	494	494
R <sup>2</sup>	0.689	0.628	0.664	0.655
Adjusted R <sup>2</sup>	0.672	0.611	0.648	0.637
Residual Std. Error	1.179	1.402	1.237	1.351

F Statistic	30.72***	38.54***	37.43***	30.61***
Note: *p<0.1; **p<0.05; ***p<0.01 Cragg-Donald Wald F: 23.67 Stock-Yogo 10%: 19.93				

#### 4.6 Heterogeneity Analysis

To enhance the explanatory power of the research conclusions, further heterogeneity analysis can be conducted by grouping the sample countries according to their geographic locations (Eastern Europe and Western Europe) and examining the differences in the moderating effect of the military-industrial complex on threat perceptions across different types of countries. The results reveal significant differences among different types of countries in the moderating effect of the military-industrial complex on threat perceptions. For Eastern European countries, the positive effects of objective military threats and the influence of the military-industrial complex on subjective threat perceptions are stronger. Additionally, the positive moderating effect of the military-industrial complex's influence on the relationship between objective military threats and subjective threat perceptions is also stronger in Eastern European countries. This suggests that the mechanism through which the military-industrial complex shapes threat perceptions differ across different types of countries. Eastern European countries have historically experienced more military conflicts and external threats, which may have granted their military-industrial complexes greater discursive power and influence in responding to objective threats.

It should be noted that, given the difficulties in obtaining cross-national data and the limitations of indicator measurements, the above research design may not be entirely immune to interference from econometric issues such as endogeneity. Furthermore, considering the complexity of European countries' military policies and interest bargaining, quantitative analysis alone may not fully capture the mechanisms through which the military-industrial complex exerts its influence. Therefore, this paper will further deepen the analysis of the process mechanisms underlying the military-industrial complex's influence through case studies.

### 5 CASE ANALYSIS

Considering the significant differences among European countries in terms of geopolitical pressures, military-industrial strength, and military cultural traditions, the research employs the Most Different Systems Design approach to select case countries, enhancing the explanatory power of the research conclusions. Specifically, using geographic region and the influence of military-industrial groups as criteria, two groups of European countries – France and Germany, Poland and the Czech Republic – are selected as comparative cases, with a focus on analyzing the operating logic and differential influence of the military-industrial complex against the backdrop of the Russia-Ukraine conflict.

#### 5.1 France and Germany: The Historical and Cultural Underpinnings of the Military-Industrial Complex's Influence

France and Germany are the two major core countries of the European Union, exerting widespread and profound influence in the political, economic, and military spheres. The developmental trajectories and modes of operation of their military-industrial complexes largely reflect the common characteristics of major European powers' military-industrial interest groups. However, influenced by their historical cultural traditions and post-war development paths, the military-industrial complexes of France and Germany also exhibit distinct individual traits.

As a major military-industrial power in Europe, France boasts a long-standing military cultural tradition and a well-developed military-industrial system. The "military independence" strategy established during the de Gaulle era laid the political status and discursive foundation for France's military-industrial complex [59]. Although defence spending declined after the Cold War, military enterprises continued to exert influence over the national security agenda through deep involvement in defence policymaking. France's three major military-industrial giants – Dassault Group, Thales Group, and Naval Group – dominate various domains such as aviation, electronics, and shipbuilding. The French Aerospace Industries Association (GIFAS) is the most influential industry association, with over 400 member companies actively engaged in international exchanges and cooperation.

To illustrate the influence of the military-industrial complex on France's defence expenditure and threat perception, we can examine the trends in these variables. According to SIPRI data, France's military expenditure increased from €50.9 billion in 2010 to €52.7 billion in 2021, a 3.5% increase. During the same period, France's arms exports as a share of total exports increased from 1.2% to 2.1%, indicating the growing influence of the military-industrial complex. Moreover, France's bilateral trade growth with Russia slowed down significantly after the 2014 Crimea crisis, from an average annual growth rate of 5.2% during 2010-2013 to -0.8% during 2014-2021. This suggests that the military-industrial complex's influence on threat perception led to a deterioration in economic relations with Russia.

The French military-industrial complex is adept at leveraging geopolitical events to shape threat perceptions. Following the Ukrainian crisis, France's military-industrial complex swiftly called for enhancing Europe's "strategic autonomy" and reducing reliance on the United States in military affairs. For example, the French Senate emphasized that the Russia-Ukraine conflict highlighted Europe's vulnerabilities in areas such as the defence industry and energy supply, urging a substantial increase in the EU's common defence budget and the creation of a genuine "European Defence

Union". Within the NATO framework, France's military-industrial complex also actively promoted Russia's "aggression," providing public opinion support for strengthening NATO's eastern flank deployments. Benefiting from its strong political influence and discursive capabilities, France's military-industrial complex played a crucial role in shaping defence policymaking. In 2018, the Macron government issued the Military Programming Law, planning to increase the defence budget to €295 billion between 2019 and 2025, a 35% increase over the previous programming period [60]. This plan fully considered the interests of the military industry, such as significantly increasing investments in new-generation tanks, stealth fighters, and other equipment.

In contrast, the historical and cultural imprint of Germany's military-industrial complex is more complex. After World War II, guided by the constitutional spirit of "never again war," Germany long pursued a policy of military restraint, constraining the scale and political influence of its military industry. Germany's military-industrial complex is primarily composed of private military giants such as ThyssenKrupp and Rheinmetall GmbH, which occupy important positions in the global arms market. The German Security and Defence Industry Association (BDSV) is the main industry organization, actively lobbying on behalf of over 2,000 companies. However, influenced by historical memory and a strong tradition of civilian control, German military officers rarely take positions in military enterprises, resulting in a relatively distant civil-military relationship.

Germany's military expenditure remained relatively stable during 2010-2021, increasing slightly from €46.3 billion to €47.2 billion (SIPRI, 2022). Its arms exports as a share of total exports also remained low, fluctuating between 0.2% and 0.4%. This suggests that the influence of Germany's military-industrial complex on defence spending and arms exports is relatively limited. Moreover, Germany's bilateral trade with Russia continued to grow after the 2014 Crimea crisis, albeit at a slower pace, from an average annual growth rate of 8.3% during 2010-2013 to 2.1% during 2014-2021. This indicates that Germany's threat perception towards Russia was less influenced by the military-industrial complex compared to France.

Although Germany's military-industrial complex is massive in scale, its political influence is relatively limited, and its discursive strategies are more low-key. According to the German Federal Members of Parliament Act, members of parliament must publicly disclose any corporate positions they hold, which to some extent limits the lobbying space for military enterprises in parliament (Bundestag, 2022). German military think tanks, such as the Peace Research Institute Frankfurt (PRIF), tend to adopt more diverse policy stances, including critical voices against militarism and arms races. Although some German military enterprises called for increased defence budgets after the Russia-Ukraine conflict, they rarely emphasized the direct military threat from Russia. Instead, the German government tended to resolve the Ukrainian crisis through diplomatic means. For example, at the 2022 Munich Security Conference, Chancellor Scholz stated that Germany was willing to engage in dialogue with Russia on issues such as disarmament [61].

However, since the 21st century, Germany's military-industrial complex has gradually achieved a "normalization" of military production and exports by strengthening its industrial alignment with NATO. The full-scale outbreak of the Russia-Ukraine conflict has, to some extent, allowed Germany's military industry to seize the "turning point" opportunity, with the governing coalition and opposition parties pushing the government to enact a €100 billion special defence spending law and adjust its foreign arms sales policy, significantly relaxing arms export controls [61]. This means that after a difficult tearing of the "pacifist curtain," Germany's military-industrial complex is poised to regain its position as a key influencer of defence policy and military action.

By contrasting the performance of France and Germany's military-industrial complexes during the Russia-Ukraine conflict, the crucial role of military cultural traditions in shaping the influence of military-industrial interest groups becomes evident. Backed by the "de Gaulle legacy," France's military-industrial complex has been more proactive and assertive in responding to geopolitical upheavals. In contrast, influenced by the post-war "peace culture," Germany's military-industrial complex has faced a more arduous and circuitous path in shifting its policy preferences. However, the military-industrial interest groups in both countries have leveraged the conflict situation to reshape the national security agenda and ultimately pushed their governments to adopt policy adjustments favorable to the military industry. This demonstrates that under the threat of major military conflicts, the moderating effect of the military-industrial complex on the relationship between objective military threats and subjective threat perceptions is significantly enhanced, although the specific mode of influence differs due to differences in military cultural backgrounds.

## 5.2 Poland and the Czech Republic: The Geopolitical Drivers of Military-Industrial Complex Influence

As former socialist countries in Eastern Europe, Poland and the Czech Republic have both undergone arduous political and economic transitions after the Cold War, facing growing geopolitical pressures from Russia's resurgence in the region. The military-industrial complexes of both countries were generally affected by strategic downsizing and industrial restructuring during the transition period. However, with the rise of Russian security threats in recent years, military-industrial interest groups have regained discursive resources and played crucial roles in shaping defence policies.

As a major country in Eastern Europe in terms of population and economy, Poland possesses a relatively comprehensive military-industrial foundation, and its military-industrial interest groups wield significant influence over national security policies. Poland's military-industrial complex is primarily composed of state-owned military enterprises, with the Polish Armaments Group (PGZ) being the largest domestic military company, overseeing more than 70 subsidiaries operating in domains such as aviation, land equipment, and ammunition. Poland has also established the Polish

Armaments Industry Association (PSIA) as an industry association for military enterprises, actively engaged in policy lobbying and international cooperation.

To illustrate the influence of the military-industrial complex on Poland's defence expenditure and threat perception, we can examine the trends in these variables. According to SIPRI data, Poland's military expenditure increased from \$8.7 billion in 2010 to \$13.0 billion in 2021, a 49.4% increase. During the same period, Poland's arms exports as a share of total exports increased from 0.3% to 0.7%, indicating the growing influence of the military-industrial complex. Moreover, Poland's bilateral trade growth with Russia slowed down significantly after the 2014 Crimea crisis, from an average annual growth rate of 12.1% during 2010-2013 to -1.3% during 2014-2021. This suggests that the military-industrial complex's influence on threat perception led to a deterioration in economic relations with Russia.

Poland's military-industrial complex is adept at leveraging geopolitical events like the Russia-Ukraine conflict to exaggerate the security threats facing Poland. After the annexation of Crimea by Russia in 2014, Poland's military-industrial complex cited the Russian threat to push the government to significantly increase defence spending and launch a new round of military-industrial revitalization programs. By 2020, Poland's defence budget had reached \$11.6 billion, accounting for 2.2% of GDP, exceeding NATO's requirement. After the full-scale outbreak of the Russia-Ukraine conflict in 2022, Poland's military-industrial complex further intensified threat propaganda targeting the government and public. For example, Polish Minister of National Defence Mariusz Błaszczak repeatedly stated publicly that Russia had amassed 100,000 troops on the Ukrainian border, posing a severe threat to Poland, and called for strengthening national defence development [62]. Polish military enterprises also seized the opportunity to promote the advanced capabilities and reliability of their military equipment, with PGZ highlighting on its official website that its missile systems, drones, and other products can effectively counter "threats from the East." The new round of weapons procurement announced by the Polish Ministry of National Defence, including 32 F-35 fighter jets, 250 M1 tanks, and more, with a total value exceeding \$27 billion, involved many projects undertaken by domestic military enterprises [63]. In contrast to Poland, the Czech military industry is relatively smaller in scale, primarily focused on the production of light weapons and ammunition. VOP CZ and AERO Vodochody are two representative companies, producing armored vehicles and trainer aircraft, respectively. The Czech Defence and Security Industry Association (DSIA) is the main industry organization, with over 100 member companies.

The Czech Republic's military expenditure remained relatively stable during 2010-2021, increasing slightly from \$2.2 billion to \$3.4 billion. Its arms exports as a share of total exports also remained low, fluctuating between 0.2% and 0.4%. This suggests that the influence of the Czech military-industrial complex on defence spending and arms exports is relatively limited. Moreover, the Czech Republic's bilateral trade with Russia continued to grow after the 2014 Crimea crisis, albeit at a slower pace, from an average annual growth rate of 7.5% during 2010-2013 to 2.8% during 2014-2021. This indicates that the Czech Republic's threat perception towards Russia was less influenced by the military-industrial complex compared to Poland.

Nevertheless, Czech military enterprises have also been striving to expand their political influence. For instance, the Chairman of VOP CZ Group has publicly called on the government to increase defence investments and support the development of the domestic military industry [64]. Against the backdrop of the Russia-Ukraine conflict, Czech military enterprises and their political advocates have actively lobbied the government to increase defence budgets and military aid, citing the need to "defend Europe." Driven by the military-industrial interest groups, the Czech government has also begun to prioritize national defence development, emphasizing the necessity of strengthening defence capabilities. For example, in February 2022, Czech Minister of Defence Jana Černočová stated that Russia's troop build-up on the Ukrainian border posed a severe threat to European security, urging an increase in defence spending and accelerating the modernization of weapons systems [64]. The European Values Center for Security Policy, a Czech think tank, published a series of reports after the outbreak of the Russia-Ukraine war, analyzing the Russian military's operations in Ukraine and calling on the Czech government to aid Ukraine and intensify sanctions against Russia. The Czech government's new 2022-2026 Defence Development Strategy raises defence spending to 2% of GDP and initiates a series of weapons procurement projects, including 24 F-35 fighter jets and 200 infantry fighting vehicles [64].

By contrasting the performance of the military-industrial complexes in Poland and the Czech Republic during the Russia-Ukraine conflict, the crucial role of geopolitical pressures in shaping the policy preferences of military-industrial interest groups becomes evident. Military enterprises in both countries have capitalized on the "favorable" rise of the Russian threat to strengthen threat perception communication with their respective governments and publics, ultimately driving the expansion of defence spending and weapons procurement. Relatively speaking, Poland's military-industrial complex wields greater influence, attributable not only to its industrial scale advantages but also reflecting Poland's more assertive policy stance toward Russia. This underscores the moderating effect of the military-industrial complex on the relationship between objective military threats and subjective threat perceptions, largely stemming from the opportunistic changes in the geopolitical situation. Against the backdrop of increasing geopolitical pressures, the military-industrial complex's space for shaping threat perceptions has expanded, ultimately translating into tangible influence in promoting defence development and military action.

Through the comparative analysis of the military-industrial complexes in the France-Germany and Poland-Czech Republic cases, the theoretical framework and research hypotheses proposed earlier can be further enriched and refined. Overall, the cases of these four countries corroborate the basic logic of the military-industrial complex's role in reinforcing subjective threat perceptions and driving military force development amid geopolitical crises. Simultaneously, they reveal the distinctive characteristics of military-industrial interest groups' modes of influence under different contextual factors. Long-standing military cultural traditions and robust military-industrial foundations

have provided more favorable discursive resources and political mobilization conditions for the military-industrial complexes in countries like France and Poland. In contrast, the post-World War II "demilitarization" historical inertia and structural limitations of the military industry have rendered the military-industrial complexes in countries like Germany and the Czech Republic more passive and cautious in responding to geopolitical upheavals. However, it is noteworthy that the shocks of major military conflicts often become crucial opportunities for military-industrial interest groups to break free from existing path dependencies and reshape policy agendas. The case of Germany's military-industrial complex successfully pushing for a "sharp turn" in defence policy by forging alliances with political parties and think tanks after the outbreak of the Russia-Ukraine conflict serves as a typical illustration.

In summary, this part further refines the theoretical framework proposed earlier through comparative case studies, revealing the key role of military-industrial interest groups in leveraging major military conflicts, reinforcing subjective threat perceptions, and driving increases in defense spending. Although the modes of influence exerted by the military-industrial complex vary across countries, a common characteristic of its policy impact is the formation of interest coalitions with political actors such as parties, governments, and the public to secure primacy in defense resource allocation. In future analyses of the interaction between the military-industrial complex and national security agendas, it is essential to grasp the universal theoretical explanatory framework while fully considering the unique operational characteristics of military-industrial interest groups within specific historical contexts. Only then can we better elucidate the profound influence of the military-industrial complex as a political actor on a nation's military strategy amidst the complex and evolving geopolitical landscape.

## 6 CONCLUSION

Taking European countries as the research subject, this study systematically explores the theoretical mechanisms and empirical evidence regarding the influence of the military-industrial complex on defense expenditures. The research shows that military enterprises can influence policymakers' and the public's threat perceptions through various channels, thereby driving increases in defense budgets. Specifically, when the external security environment deteriorates, military-industrial interest groups often leverage their political influence and information advantages to exaggerate the security threats they face, amplify tense situations, and create a "hostile atmosphere" to secure more defense contracts and research projects, maximizing profits. This behavior distorts the nation's threat assessments, leading to inefficient allocation of defense resources. This study reveals a key micro-mechanism through which the military-industrial complex shapes threat perceptions, amplifying subjective security demands and thereby influencing defense policymaking. This finding breaks away from the traditional analytical path of military-industrial complex research, which focuses on the interaction between military enterprises and government decision-makers. It emphasizes the military-industrial complex's ability to manipulate information and influence public preferences, expanding our understanding of its operational logic.

## COMPETING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

## REFERENCES

- [1] Robinson N. Videogames, persuasion and the war on terror: escaping or embedding the military—entertainment complex?. *Political Studies*, 2012, 60(3), 504-522.
- [2] Nordhaus WD, Oneal JR, Russett B. The effects of the international security environment on national military expenditures: a multicountry study. *International Organization*, 2012, 66(3), 491-513.
- [3] National Archives. President Dwight D. Eisenhower's Farewell Address, 1961.
- [4] Rosen S. *Testing the theory of the military-industrial complex*. Lexington Books, 1973.
- [5] Melman S. *The Permanent War Economy: American Capitalism in Decline*. Simon and Schuster, 1976.
- [6] Giroux HA. *The University in Chains: Confronting the Military-Industrial-Academic Complex*. Routledge, 2007.
- [7] Lai B, Slater D. Institutions of the offensive: domestic sources of dispute initiation in authoritarian regimes, 1950–1992. *American Journal of Political Science*, 2005, 50(1), 113-126.
- [8] Whitten GD, Williams LK. *Buttery Guns and Welfare Hawks: The Politics of Defence Spending in Advanced Industrial Democracies*. *American Journal of Political Science*, 2010, 55(1), 117-134.
- [9] Elveren AY, Hsu S. Military expenditures and profit rates: evidence from oecd countries. *Metroeconomica*, 2015, 67(3), 551-577.
- [10] Eichenberg RC, Stoll RJ. Representing defense. *Journal of Conflict Resolution*, 2003, 47(4), 399-422.
- [11] Koenig T, Troeger VE. Budgetary politics and veto players. *Swiss Political Science Review*, 2005, 11(4), 47-75.
- [12] Cornish P, Edwards G. Beyond the eu/nato dichotomy: the beginnings of a european strategic culture. *International Affairs*, 2001, 77(3), 587-603.
- [13] Fordham BO. The politics of threat perception and the use of force: a political economy model of u.s. uses of force, 1949-1994. *International Studies Quarterly*, 1998, 42(3), 567-590.
- [14] Sinkkonen E, Elovainio M. Chinese perceptions of threats from the united states and japan. *Political Psychology*, 2019, 41(2), 265-282.

- [15] Oliveira T, Martin MFO. Understanding e-business adoption across industries in european countries. *Industrial Management & Data Systems*, 2010, 110(9), 1337-1354.
- [16] Vroege B. Strategic Autonomy in Military Production: The EDF and the Constitutional Limits to EU Defence-Industrial Spending Power. *European Foreign Affairs Review*, 2023, 28(4), 341-362.
- [17] Smith KE, Fooks G, Gilmore A, Collin J, Weishaar H. Corporate coalitions and policy making in the european union: how and why british american tobacco promoted “better regulation”. *Journal of Health Politics, Policy and Law*, 2015, 40(2), 325-372.
- [18] MacLeavy J, Peoples C. Warfare–warfare: neoliberalism, “active” welfare and the new american way of war. *Antipode*, 2009, 41(5), 890-915.
- [19] Feaver PD. Civil-military relations. *Annual Review of Political Science*, 1999, 2(1), 211-241.
- [20] Izadi R. State security or exploitation: a theory of military involvement in the economy. *Journal of Conflict Resolution*, 2022, 66(4-5), 729-754.
- [21] Yilmaz A. The missing piece of the puzzle: the emasya protocol and civil-military relations in turkey. *Armed Forces & Society*, 2022, 49(2), 470-488.
- [22] Şengöz M. An Examination Of The National Security Paradigms Within The International Relations Discipline As On And Post-Cold War. *Mecmua*, 2022, 14, 182-198.
- [23] Huddy L, Feldman S, Capelos T, et al. The consequences of terrorism: disentangling the effects of personal and national threat. *Political Psychology*, 2002, 23(3), 485-509.
- [24] Ledbetter J. *Unwarranted Influence: Dwight D. Eisenhower and the Military-Industrial Complex*. Yale University Press, 2011.
- [25] Knežević S, Obradović T, Milojević S. Managing the risk of corruption in the defense sector. *Revizor*, 2022, 25(99)
- [26] Koroschupov VO. Some Aspects of European Defence Industry Development. *World Economy and International Relations*, 2022, 66(12), 87-107.
- [27] Rufanges JC. The Arms Industry Lobby in Europe. *American Behavioral Scientist*, 2016, 60(3), 305-320.
- [28] Mylonas Y. Discourses of counter-Islamic-threat mobilization in post 9/11 documentaries. *Journal of Language and Politics*, 2012, 11(3), 405-426.
- [29] Aslam R. (2007). Measuring the peace dividend: evidence from developing economies. *Defence and Peace Economics*, 18(1), 39-52.
- [30] Chen B, Li-ming Z. The determinants of china's defense expenditure before and after transition. *Conflict Management and Peace Science*, 2006, 23(3), 227-244.
- [31] Konovalova M, Abuzov A. Geopolitical crises, the energy sector, and the financial capital market. *E3S Web of Conferences*, 2023, 381(01042), 1-7.
- [32] Ghazanfar B, Khalid I, Qazi SM. Paradigm shifts in strategic culture of pakistan: an assessment of traditional versus non-traditional threat perceptions. *Annals of Human and Social Sciences*, 2022, 3(2).
- [33] Gečienė-Janulionė I. The consequences of perceived (in)security and possible coping strategies of lithuanian people in the context of external military threats. *Journal on Baltic Security*, 2018, 4(1), 5-14.
- [34] Bachleitner K. International memories in global politics: making the case for or against un intervention in libya and syria. *Review of International Studies*, 2023, 50(2), 271-288.
- [35] Cohen D. Culture, social organization, and patterns of violence. *Journal of Personality and Social Psychology*, 1998, 75(2), 408-419.
- [36] Liu D, Wang C, Fang C, Liu P. A study of project financing on the defense industry in systems thinking perspective. *Journal of Applied Finance & Banking*, 2021, 11(2), 131-149.
- [37] Albareda A, Braun C. Organizing transmission belts: the effect of organizational design on interest group access to eu policy-making. *JCMS: Journal of Common Market Studies*, 2019, 57(3), 468-485.
- [38] Shrestha YR, Ben-Menahem SM, Krogh GV. Organizational decision-making structures in the age of artificial intelligence. *California Management Review*, 2019, 61(4), 66-83.
- [39] Hostert P, Kuemmerle T, Prishchepov AV, et al. Rapid land use change after socio-economic disturbances: the collapse of the soviet union versus chernobyl. *Environmental Research Letters*, 2011, 6(4), 045201.
- [40] Moses IK. The reconstruction of nato in the post trump era. *Journal of Advanced Research and Multidisciplinary Studies*, 2021, 1(2), 10-17.
- [41] Malizard J. Military expenditure and economic growth in the european union: evidence from sipri's extended dataset. *The Economics of Peace and Security Journal*, 2016, 11(2).
- [42] Flores AQ. Alliances as contiguity in spatial models of military expenditures. *Conflict Management and Peace Science*, 2011, 28(4), 402-418.
- [43] Khaustova VY, Kyzym M, Kostenko DM. Analyzing the International Assessments of the Military Power of the Armed Forces of Ukraine and Countries of the World. *Business Inform*, 2023, 541, 16-33.
- [44] Syzov A, Koval O, Pakholchuk V. Military power and militarization of global space. *Bulletin of Taras Shevchenko National University of Kyiv. Military-Special Sciences*, 2022, 51(3), 49-55.
- [45] Yeşilyurt ME, Elhorst JP. (). Impacts of neighboring countries on military expenditures: A dynamic spatial panel approach. *Journal of Peace Research*, 2017, 54(6), 777-790.
- [46] Kollias C. Country survey military expenditure in Cyprus. *Defence and Peace Economics*, 2001, 12(6), 589-607.
- [47] Aizenman J, Glick R. Military expenditure, threats, and growth. *NBER Working Paper Series*, 2003, 9618.

- [48] Morgan TC, Bapat N, Kobayashi Y. Threat and imposition of economic sanctions 1945–2005: updating the TIES dataset. *Conflict Management and Peace Science*, 2014, 31(5), 1-18.
- [49] Akoto W, Peterson TM, Thies CG. Trade composition and acquiescence to sanction threats. *Political Research Quarterly*, 2019, 73(3), 526-539.
- [50] Peterson TM, Venteicher JF. Trade relationships and asymmetric crisis perception. *Foreign Policy Analysis*, 2012, 9(2), 223-239.
- [51] Stavrianakis A. Introducing the special section on ‘arms export controls during war and armed conflict’. *Global Policy*, 2023, 14(1), 107-111.
- [52] Geyer M. Arms Exports: The Normality of a Scandalous Subject: A Comment. *German Yearbook of Contemporary History*, 2022, 6.
- [53] Chopra A. China's Rise as an Arms Exporter: Implications for India. *Claws Journal*, 2020, 13(2), 81-96.
- [54] Blum J. Arms production, national defense spending and arms trade: examining supply and demand. *European Journal of Political Economy*, 2019, 60, 101814.
- [55] Haesebrouck T. Who follows whom? a coincidence analysis of military action, public opinion and threats. *Journal of Peace Research*, 2019, 56(6), 753-766.
- [56] Moon C, Lee S. Military Spending and the Arms Race on the Korean Peninsula. *Asian Perspective*, 2009, 33(4).
- [57] Collier P, Hoeffler A. Military expenditure - threats, aid, and arms races. *Policy Research Working Papers*, 2002.
- [58] Pamp O, Thurner PW. Trading Arms and the Demand for Military Expenditures: Empirical Explorations Using New SIPRI-Data. *Defence and Peace Economics*, 2017, 28(4), 457-472.
- [59] Belin J, et al. Defence industrial links between the EU and the US. *Armament Industry European Research Group*, 2017.
- [60] Ministère des Armées. *Loi de programmation militaire 2019-2025*, 2018.
- [61] Cabinet of Germany. Speech by Olaf Scholz, Chancellor of the Federal Republic of Germany and Member of the German Bundestag, at the Munich Security Conference, 2022.
- [62] Website of the Republic of Poland. Meeting of NATO Defense Ministers, 2022.
- [63] Terlikowski M. Defence Innovation: New Models and Procurement Implications. The Polish Case. *Armament Industry European Research Group*, 2022.
- [64] Fajnor J. Government endorsed donation of military materiel from Czech defence industries. *Ministry of Defence & Armed Forces of the Czech Republic*, 2022.