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Efficiency of Defence Expenditure Management in the Context of Escalating Security Threats

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Abstract:

Purpose: *This article aims to assess the effectiveness of defence expenditure management in the context of increasing threats to state security. In particular, it analyses the mechanisms of planning, allocation, and control of budget funds in the defence sector and their adaptation to current and future strategic challenges.*
Design/Methodology/Approach: *The article is based on secondary data analysis of the defence budgets of the European Union and NATO countries, including Poland. Methods of comparative analysis, strategic documents analysis, and case studies of good practices in defence finance management were used. The research problem was formulated: Does the increase in defence spending in EU and NATO countries translate into a real strengthening of defence capabilities, or do management and strategic planning deficits limit their effectiveness? The hypothesis assumes that effective management of defence expenditure, based on multi-annual programming, risk analysis and efficiency audits, has a greater impact on improving the state's defence capabilities than the nominal increase in the defence budget itself.*
Results: *The study showed that although defence expenditures in European countries are systematically increasing, the effectiveness of their management is still limited by the lack of long-term planning, fragmentation of purchases, and insufficient connection of budgeting with risk analysis. Countries that implement multi-annual programming and efficiency audit mechanisms achieve higher-quality investments.*
Practical implications: *The analysis results can be used as a basis for formulating recommendations for decision-makers responsible for defence policy. Proposed directions for improvements include, among others, the development of managerial competencies in defence administration, integration of budget planning with analysis of threat scenarios, and*

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strengthening of international cooperation mechanisms in the field of joint purchases and standardization.
Originality / Value: *The article brings a new perspective to the discussion on the quality of spending defence funds, pointing out the importance of not only the level of financing but, above all, the quality of management of these funds. The analysis emphasizes that state security depends not only on the amount of the defence budget but also on its effective and strategic use.*

Keywords: *Spending, defense, security threat, management effectiveness, control of budget funds.*

JEL codes: *D24, D61, F52, G32, H56.*

Paper type: *Research article.*

1. Introduction

The contemporary international security environment is characterized by increasing unpredictability and complexity of threats, which are no longer limited to traditional armed conflicts. We are witnessing the return of great-power geopolitical rivalry, as evidenced by Russia's expansionist policy,

China's growing military ambitions, and tensions in the Middle East and the Indo-Pacific region. Asymmetric and unconventional threats, such as the actions of terrorist groups, paramilitary organisations, and entities operating using information and psychological warfare tools, are also becoming increasingly important.

The conflict seriously affected the European defence industry in all areas and stimulated massive investments in this sector (Chovančík and Krpec, 2023, 269). This conflict demonstrated that state security could not be treated as a fixed value, and defence systems should be dynamically adapted to current strategic realities.

Hybrid conflicts, which combine classic military operations with cyberattacks, disinformation campaigns and attempts at internal destabilization, blur the lines between war and peace. They thus pose new requirements for decision-makers in terms of defence planning, the flexibility of response and the adaptive capacity of state institutions.

Interference in critical infrastructure - energy, telecommunications, transport, or health—is also becoming an increasingly serious threat. It can paralyze the state's functioning without needing a physical military attack. Therefore, cybersecurity and infrastructure resilience are becoming integral elements of defence policy. At the same time, migration pressure is intensifying, often instrumentalised by hostile states as a form of political pressure, which complicates security management at the strategic level (Grima *et al.,* 2020; Velinov *et al.,* 2023).

All these factors increase defence spending and the need for thoughtful, purposeful and effective spending. Defence spending is no longer just an element of allied commitments to NATO but is becoming a real tool for building the state's resilience. In this context, the question arises about the effectiveness of these expenses: Does their increase lead to a real strengthening of the defence capabilities and security of citizens, or is it reduced to meeting formal standards without a guarantee of achieving the intended strategic effects?

2. Strategic Context and Evolution of Security Threats

Contemporary international security is in a phase of profound transformation, the pace and nature of which are unprecedented compared to past decades. At the beginning of the 21st century, the conviction about stabilising the global order dominated, especially after the expansion of NATO and the European Union and the limitation of the rivalry between great powers after the end of the Cold War.

However, recent years have brought a return of geopolitical tensions, in which military power, asymmetric threats and economic pressure have once again become the main tools of strategic influence. The ongoing changes require a developed sphere of international security, which is only possible based on the cooperation of many countries (Ciekanowski, Załoga, and Perdion, 2017, p. 182).

One of the most important factors redefining the approach of states to security is the aggressive policy of the Russian Federation, the apogee of which is the invasion of Ukraine that began in 2022. Russia's attack on Ukraine has caused a sharp increase in the sense of threat in Eastern European countries neighbouring Russia (Ciekanowski, Brążkiewicz, and Nowicka, 2022, p. 26).

However, it has reminded us of the importance of conventional territorial defence and highlighted the need to prepare NATO countries for scenarios of full-scale warfare in Europe. In addition to traditional military threats, non-kinetic forms of influence are becoming increasingly important - so-called hybrid threats, combining military actions, cyberattacks, disinformation, influence operations and sabotage activities aimed at critical infrastructure.

Cyber threats are also a growing, important phenomenon, including cyberattacks on military, infrastructure, and administrative systems. Examples of attacks on energy, aviation and banking networks in Western countries illustrate the scale of potential losses that a country unprepared for war in cyberspace may suffer. This requires investments in classic armaments and digital technologies, reconnaissance capabilities, ICT security, and personnel training in cyber defence.

Among the threats, one cannot ignore phenomena destabilizing the socio-political order – such as migration pressure used by some regimes as an instrument of pressure on neighbouring countries (Ciekanowski, Żurawski, and Czternastek, 2025; Thalassinos *et al.,* 2023; Grima *et al.,* 2023).

The example of the situation on the Polish-Belarusian border in 2021 proves that low-intensity operations, which do not belong to the category of classic warfare, can generate serious threats to state security and require the involvement of significant defence and order resources (Elak, Oskierko, and Żurawski, 2024, p. 93).

All these phenomena mean that NATO and EU member states have been forced to rethink their defence policies and significantly increase spending on military and security purposes. However, to be effective, these expenses must be consistent with real strategic needs and not just a reflection of political pressure or international obligations.

Public expectations towards the armed forces are also growing. In addition to combat readiness, they must demonstrate the ability to provide support in crises, such as natural disasters, pandemics, or attacks on civilian infrastructure. In this dynamically changing strategic context, rational management of defence expenditures is becoming not only a matter of economy but also a condition for effective adaptation of the armed forces to new challenges.

The effectiveness of this management will be the subject of further analysis in the following parts of the article.

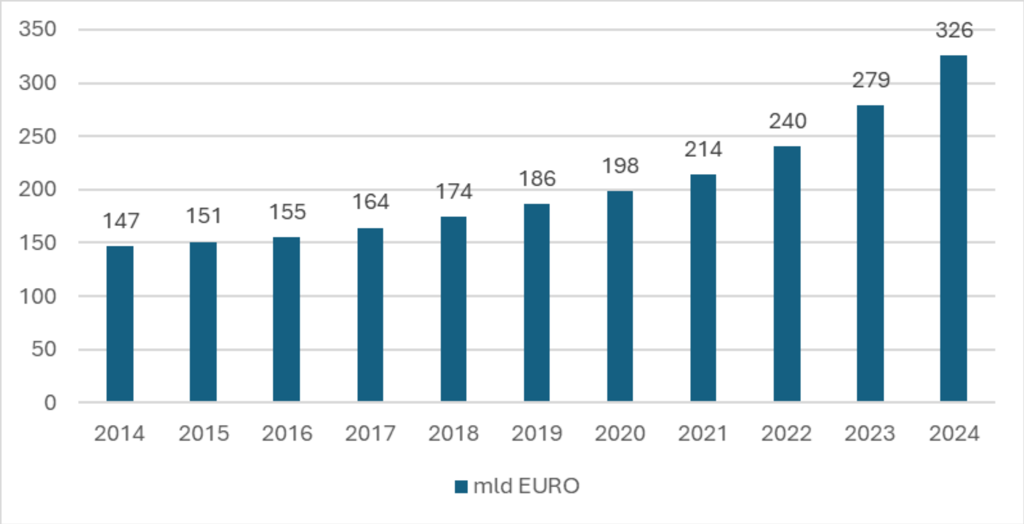
3. Structure and Management of Defence Expenditure – Efficiency Analysis

In recent years, the Member States of the European Union have significantly increased their defence expenditure, which is a response to the growing threats to international security. According to data from the EU Council, in 2024, the total amount allocated for defence purposes amounted to approximately EUR 326 billion, which is 1.9% of the combined GDP of the Member States.

It is worth emphasizing that this is an increase of over 30% compared to 2021. As much as EUR 102 billion was allocated to defence investments, meaning almost one-third of the total budgets were directed to development and modernization activities. The graph below shows EU defence expenditure in the years 2014-2024.

Real spending is expected to increase by over EUR 100 billion by 2027 (Consilium Europa). EU countries' defence spending structure indicates its diversity and the increasing importance of innovative and strategic aspects.

Figure 1. *EU defence spending 2014–2024*



Source: *European Defence Agency.*

Significant funds are directed towards the technical modernization of the armed forces, including the purchase of new weapons and military equipment and the development of dual-use technologies. An important place in the budget structure is occupied by expenditure on military personnel's training and operational preparation and the costs of maintaining human resources - including salaries and benefits for soldiers and civilian employees.

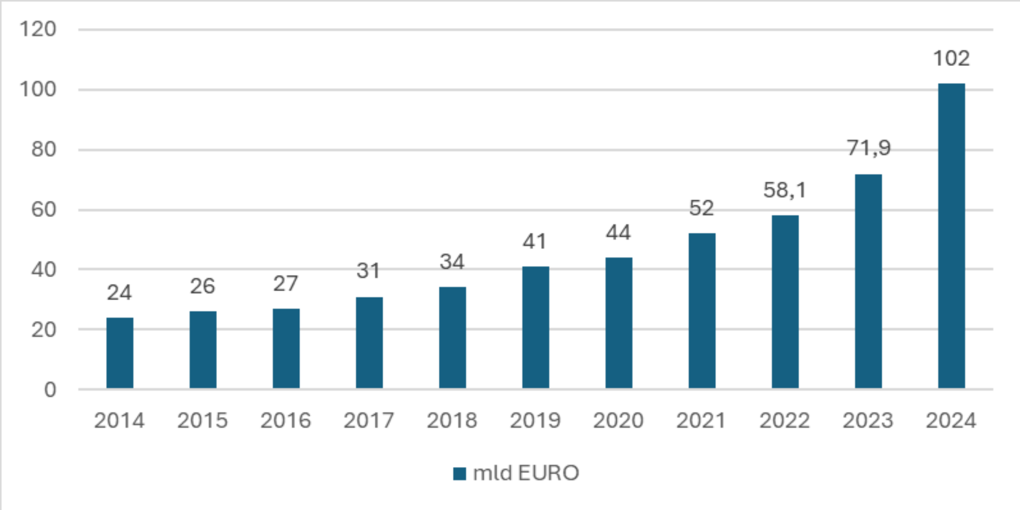
Increasing attention is also being paid to developing cybersecurity capabilities, which is a response to the escalation of cyberattacks targeting countries' critical infrastructure. The effectiveness of managing such complex budgets depends largely on the adopted planning and control mechanisms.

Many countries are developing multi-year defence strategies that are intended to rationally allocate funds over several or a dozen years. Periodic budget reviews and audits are also conducted to monitor progress in implementing modernization plans and identify potential inefficiencies. Defence investments for 2014–2024 are presented below.

In 2023, defence investment grew at an exceptional pace. Compared to the previous year, it increased by 17%, reaching a record €72 billion. This represented 26% of the total defence spending of the Member States.

Member States thus significantly exceeded the agreed common benchmark of 20%. The data shows that defence investment reached €102 billion in 2024, representing more than 30% of total defence spending (Consilium Europa).

Figure 2. *Defence investment 2014–2024*



Source: *European Defence Agency.*

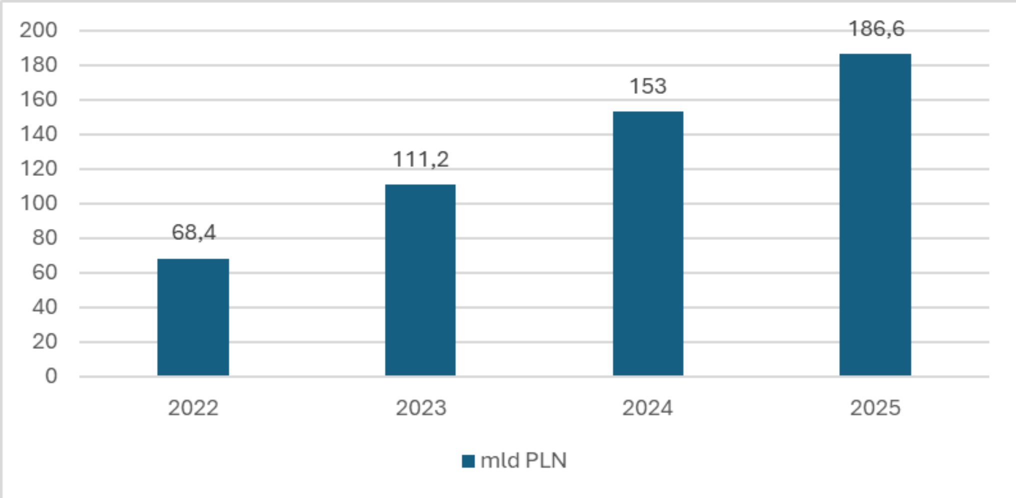
However, one of the main challenges remains the fragmentation of the defence market in Europe, with Member States still applying different purchasing procedures, technical standards and operational requirements, which makes joint investment difficult and causes duplication of spending. An additional problem is the lack of coherent, long-term financial commitments, which often lead to discontinuities in the financing of large projects and delays in their implementation.

In the context of alliance commitments, it is worth recalling that NATO countries should allocate at least 2% of GDP for defence spending, of which 20% should be allocated to technical modernization. In this respect, Poland is one of the leaders – in 2025, it plans to allocate 4.7% of its GDP for defence purposes, significantly higher than the European average (DziennikZbrojny.pl).

Denmark and Estonia have also announced significant increases in spending, planning to reach 3% and over 4% of GDP in the coming years, respectively. The chart below shows Poland's defence spending in 2022-2025.

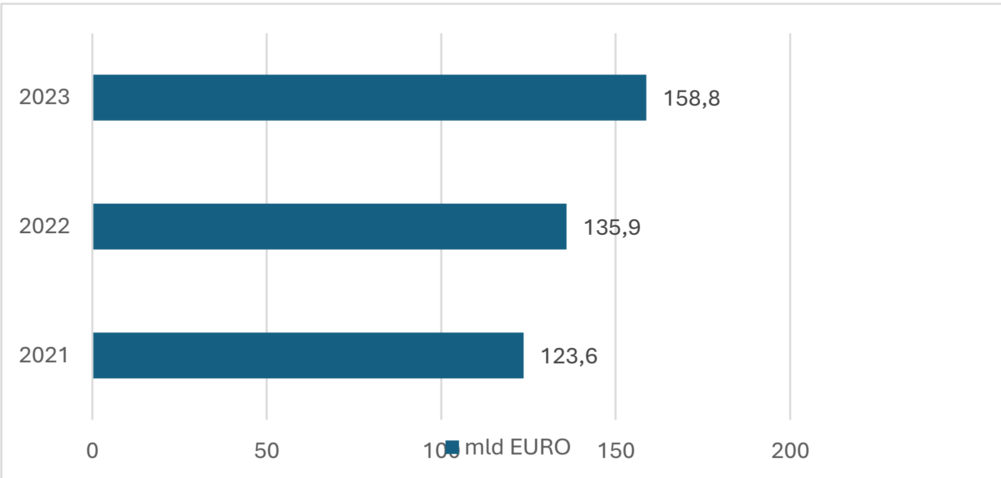
In order to increase the efficiency of spending, the European Union has launched several initiatives. The most important is the European Defence Fund (EDF), which supports the Member States' research and development projects and joint investments (Terlikowski, 2020). A complementary tool is EDIRPA – a mechanism for joint purchases of military equipment to achieve economies of scale and reduce costs (Schnitzler, 2023, p. 2). The EU is also focusing on strengthening the defence industry, supporting, in particular, small and medium-sized enterprises and developing production capacities in the face of growing strategic needs. Consequently, an increase in the number of flights of the defence industry. The increase is presented in the Figure 4 below.

Figure 3. *Poland's defense spending in 2022-2025*



Source: *Ministry of National Defence.*

Figure 4. *Defense industry turnover in 2021-2023*



Source: *ASD, Facts and Figures 2024.*

In 2023, the turnover of the European defence industry amounted to EUR 158.8 billion. This is 16.9% more than in the previous year. All three key sectors recorded an upward trend:

• military aeronautics: EUR 64.8 billion turnover (+15.8%),
• maritime sector: EUR 37.9 billion (+17.7%),
• land sector: EUR 56.2 billion (+17.7%) (ASD, Facts and Figures 2024).

Increasing defence spending does not automatically guarantee an increase in states' defence potential. How these funds are managed is crucial—their targeted planning, effective use, and elimination of structural and procedural barriers. In an era of multidimensional threats, financial efficiency is becoming no less important than the budget size.

4. Recommendations and Directions for Improving the Effectiveness of Defense Finance Management

Given the growing defence spending and the dynamically changing security environment, it is becoming necessary to introduce profound changes in financial management in the defence sector. There is no doubt that in the context of ensuring international security, the European Union is a significant actor in the international arena (Zieliński, 2012, p. 76), but the size of the budget itself does not determine the growth of the state's defence potential - the quality of management of these funds is equally important, and often more decisive. Although initiatives such as the European Defense Fund (EDF) and legal acts such as EDIRPA and ASAP constitute progress, serious obstacles remain (Scazzieri, 2024).

Therefore, the key challenge is moving from a reactive and fragmented financing model to a strategic, integrated and results-based approach. One of the basic directions for improving the management of defence expenditure should be implementing multi-annual, integrated planning programmes, which ensure the continuity of financing of key modernisation projects and better forecasting of material, logistics and personnel needs. Multi-annual programming, modelled on the practices of some NATO countries (e.g. Norway or Great Britain), enables not only budgetary stabilisation, but also better adjustment of investments to evolving threat scenarios.

The second important tool for improving efficiency is regular audits of the effectiveness of defence spending, not only in financial terms but also in operational terms. They should assess whether investments actually strengthen defence capabilities in areas considered strategic and are not the result of political pressure or lobbying by the defence industry. To this end, it is also necessary to better link the budgeting process with analyzing risks and strategic scenarios so that financial resources correspond to the most probable and most dangerous threats to national security.

The third key area of reform should be the development of competencies of management staff in the defence sector. Managing complex investment projects, international purchasing cooperation or modernization of technical infrastructure requires military knowledge and advanced managerial, economic and analytical competencies. It is worth considering the creation of dedicated education and training programs for civilian and military defence managers and better cooperation with the academic sector and independent experts.

It is therefore worth remembering that a strong and growing position in the world is determined, apart from the quality of the policy pursued, by the level of the national economy, of which the defence industry is a component (Lewandowski and Fonrobert, 2021, p. 132).

Good practices from NATO countries that have reformed their defence expenditure management systems in recent years may be an important source of inspiration. For example, Canada has implemented a comprehensive system for assessing the effectiveness of defence investments (Defence Investment Plan).

At the same time, the Netherlands has focused on partnerships with the private sector and transparency of purchasing processes. Other countries, such as Sweden and Germany, are developing detailed competence maps and technological transformation plans that allow for the systematic improvement of defence capabilities in a measurable and coherent manner.

To sum up, for defence expenditures to really increase the state's security, they must be managed in an integrated, transparent manner and based on long-term strategic goals. This requires structural reforms, the development of analytical tools, and the strengthening of the institutional potential of entities responsible for planning and supervising defence financing. Only then will it be possible to improve the effectiveness of the state's defence system and fully utilize the growing financial resources allocated to its development.

5. Summary

In the face of growing challenges to international security, the European Union and NATO member states are increasing their defence spending. Armed conflicts, hybrid threats, cyberattacks, and the destabilization of the geopolitical environment force the need to increase financial outlays and manage them rationally and effectively. The analysis showed that although the scale of investments in defence is growing significantly, there are still significant structural and management limitations that may reduce the effectiveness of the funds spent.

Suppose that defence spending will lead to a real strengthening of the state's defence capabilities. In that case, it must be subordinated to coherent strategies based on risk analysis, long-term needs and current and forecasted threats. Effective financial management in the defence sector requires multi-year programming, strict supervision over the implementation of modernization projects and systematic auditing of the effects of investments undertaken.

Developing managerial competencies among the staff responsible for planning and supervising expenses is also essential, as it allows for avoiding errors resulting from the failure to adapt financial plans to real operational needs.

Recommendations formulated based on the analysis of the experiences of NATO and EU member states indicate the need to integrate budgeting processes with strategic planning, use analytical tools in decision-making, and increase the transparency of purchasing procedures. Good practices implemented in countries such as Poland, Estonia, Canada and the Netherlands show that an effective financial policy in the area of defence does not have to be based solely on the level of expenditure but, above all, on its quality and orientation towards long-term goals.

This article concludes that improving the effectiveness of defence expenditure management should be an integral element of the national security strategy. Without a well-thought-out, integrated and professional approach to defence financing, even significant budget funds may not translate into adequate resilience and readiness of the state to respond to contemporary threats.

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