

DEFENSE FINANCIAL MECHANISMS IN NATO COUNTRIES – MANAGERIAL APPROACHES

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This paper provides a comparative case study on two NATO countries Sweden and Romania, analyzing military budget expenditures and funding since 2014. It examines the managerial concepts used by those two countries to finance their defense sectors, focusing on the efficient allocation of resources for national security. The study presents the research objectives and research questions using a mixed-method approach that includes comprehensive primary data and secondary government reports. Both qualitative and quantitative analysis are used. The findings of the analysis will propose models for standardizing budget planning across NATO countries, with recommendations for improving current defense budgeting mechanisms.

Key words: *budget, economics, financing, military financing, policy recommendations, resource allocation.*

1. INTRODUCTION

Ensuring the security and sovereignty of a nation is a paramount concern for governments worldwide, with national defense being a critical component of this responsibility. The allocation of financial resources to defense is vital, not only for maintaining military readiness but also for supporting a country's geopolitical objectives. Given the complexity of modern security challenges, the mechanisms through which nations fund their defense capabilities have become increasingly significant. Understanding and optimizing these funding mechanisms are crucial for ensuring that defense

spending is both effective and sustainable.

Despite the importance of defense funding, existing literature on the subject often focuses on narrow aspects, such as the efficiency of specific budgetary practices or the impact of defense spending on economic growth. However, there is a notable knowledge gap in comprehensive, comparative analyses that examine funding mechanisms at national defense level across different countries. Most studies fail to address the broader implications of these mechanisms on national security strategy, economic stability, and long-term defense planning. This study aims to fill this gap by providing a comparative analysis of defense

funding mechanisms across various nations, focusing on how these strategies are influenced by political, economic, and other factors.

To achieve this, the study employs a mixed-methods approach, combining qualitative analysis of policy documents and defense budgets with quantitative analysis of defense expenditure data across different countries. Case studies of selected nations are used to illustrate the diversity of funding approaches, highlighting both their successes and challenges. By integrating these methods, the study offers a holistic view of how different funding mechanisms operate at the tactical level and their impact on national defense capabilities.

This study contributes to existing body of knowledge by providing a detailed comparison of defense funding mechanism, offering insights into best practices and potential pitfalls. It also highlights the importance of aligning defense funding strategies with broader national security objectives and economic realities. Additionally, the findings of this study can serve as a valuable resource for policymakers, defense planners, and scholars interested in the intersection of finance and national security.

This article underscores the critical need for well-informed approaches to defense funding. As nations face evolving security threats and economic uncertainties, understanding the comparative

advantages of different funding mechanisms is more important than ever. This study aims to shed light on these funding mechanisms, offering a comprehensive analysis that will contribute to more effective and sustainable national defense strategies.

2. LITERATURE REVIEW

The effective financing of national defense is a critical component of a country's ability to maintain security, sovereignty and geopolitical stability. Understanding the various funding mechanisms available to governments is essential for ensuring that defense systems are adequately resourced and capable of responding to emerging threats. This chapter reviews the existing literature on defense financing, exploring both traditional and innovative funding mechanisms. The review will draw comparisons across different countries, focusing on how different models impact defense performance and sustainability.

2.1. Theoretical Frameworks on Defense Financing

The financing of national defense has long been explored through various economic and public frameworks. Classical economic theories on public goods, such as Samuelson's theory of public expenditure, lay the foundation for understanding national defense as a non-excludable and non-rivalrous good, requiring collective financing through taxation (Samuelson, 1958).

Resource dependency theory is also highly relevant in the defense context, as it highlights how organizations (including military institutions) rely on external resources, such as government funding, to sustain operations (Singh et al., 2011). This theory is useful in explaining how funding levels and sources shape military strategies and capabilities.

Another important theoretical lens is the “guns” versus “butter” model, which explores the trade-off between defense spending and social welfare. This model informs policy debates on the allocation of limited resources and the balance between defense needs and other public services (Huang and Mintz, 1992). Additionally, Keynesian and neoliberal approaches to fiscal policy provide insights into the broader economic strategies used by governments to manage defense budgets, particularly during periods of economic recession or boom.

2.2. Public Funding Mechanisms for National Defense

Public financing mechanisms for defense are typically characterized by government taxation, borrowing and allocation of funds through national budgets. Taxation remains the primary source of defense financing in most countries, with defense budgets often representing a significant portion of public expenditure.

Borrowing, both domestically and internationally, is another traditional mechanism for defense funding, particularly in times of war or conflict

when immediate capital is required. Governments often issue bonds or engage in deficit spending to meet urgent defense needs. Research by Nordhaus underscores the long-term fiscal challenges posed by excessive borrowing for defense purposes, particularly in countries with already high debt-to-GDP ratios.

Moreover, fiscal policies, including austerity measures and stimulus spending, have a direct influence on how defense budgets are structured and allocated. Countries facing budgetary constraints often struggle to maintain adequate defense spending, leading to debates on the need for reforms in public financing of defense systems.

2.3. Alternative and Innovative Defense Financing Models

In recent years, there has been increasing interest in alternative defense financing models that move beyond traditional taxation and borrowing. Public – Private Partnerships (PPPs) have emerged as a key strategy for funding military infrastructure and procurement. Therefore, from this point of view, the customer is seen as the public institution and the firm is as the service-provider organization, which leads to the following situations: *“the company will support customers’ objectives regarding: the opportunity and easy access to products and services offered; a contract and adequate communication with trained personnel; privileged, special position*

for known customers; recognition of their relation with the company; efficient and timely solving of their problems; anticipation of their needs; professional and friendly mutual dialogue”(Minculete and Chisega-Negrilă, 2014). For instance, countries such as the United Kingdom and the United States have implemented models to develop military bases, technology, and equipment, sharing the financial burden with private entities.

Defense bonds, a more recent innovation, have been introduced as a way for governments to raise funds directly from the public. These bonds offer citizens a direct stake in national defense efforts and provide an alternative to traditional borrowing methods. However, literature on defense bonds remains sparse, with limited empirical evidence on their effectiveness in comparison to conventional financing approaches.

Defense industrial cooperation, particularly within alliances such as NATO and the European Union, is another innovative approach. This model allows countries to pool resources and share costs of defense procurement and research. As explored by Bitzinger, such cooperation is seen as a way to overcome budget constraints while ensuring access to advanced military technologies (Raska and Bitzinger, n.d.).

2.4. Comparative Studies on National Defense Funding

Comparative research on defense funding mechanisms has revealed significant variations across countries, shaped by economic, political, and security contexts. For example, high-income countries with advanced economies tend to allocate a larger percentage of GDP to defense, often supplemented by robust taxation systems and efficient budgetary processes. The United States, with the largest defense budget in the world, relies on a complex mix of public taxation, borrowing and defense bonds to fund its extensive military apparatus. In contrast, many developing nations face challenges in sustaining adequate defense budgets due to limited fiscal capacity and competing development needs. Studies comparing countries like India, Brazil and South Africa reveal the complexities of balancing defense spending with economic growth and social development priorities.

Another area of comparative interest is how geopolitical considerations influence defense funding. In research is demonstrated the fact that countries in volatile regions or those facing immediate security threats tend to allocate a higher proportion of their budget to defense. In contrast, nations in more stable regions may adopt a more conservative approach to defense financing, replying on alliances for security guarantees.

2.5. Financial Sustainability in Defense Spending

Financial sustainability has emerged as a critical concern in defense financing literature. Long-term sustainability refers to the ability of a nation to maintain adequate defense spending without compromising its overall fiscal health. Studies by Brzeski have shown that countries with high defense expenditure relative to GDP often face sustainability also depends on efficient resource allocation, ensuring that defense budgets are used effectively without waste or corruption (Brzoska, 2019).

Sustainability is also linked to the concept of autonomy, which refers to a nation's ability to independently finance and manage its defense needs without reliance on external actors. This is particularly important for countries facing long-term geopolitical threats, where sustainable defense funding is critical for maintaining national security over time.

2.6. Impact of Funding Mechanisms on Defense Performance

The relationship between funding mechanisms and defense performance is a key area of interest in the literature. Studies have shown that while increased defense spending can enhance military capabilities, the effectiveness of spending is often more important than the overall budget size. For instance, it is

demonstrated that countries with well-developed defense procurement processes and efficient resource management systems tend to achieve better defense outcomes, regardless of absolute spending levels (Dunne et al., 2005).

In plus, performance is often linked to innovation in defense funding. Countries that have adopted alternative financing models, such as PPPs and defense bonds, have been seen improvements in military readiness and technology development, suggesting that diversification of funding mechanisms can positively impact performance.

2.7. Challenges, Criticisms and Research Gap of Current Funding Models

While various defense funding models have been explored, they are not without challenges. Traditional models, particularly reliance on taxation and borrowing, have been criticized for lack of transparency and accountability. Studies by Willett (2014) point out of the difficulties in tracking defense expenditures due to the classified nature of military operations, which often leads to inefficiencies and potential misuse of funds.

Innovative funding mechanisms, such as PPPs, have also faced criticism. Concerns about private sector involvement in national defense include the potential loss of governmental control, conflicts of interest and the prioritization of profit

over security outcomes. Furthermore, the introduction of defense bonds has raised concerns about public debt accumulation and long-term financial implications for governments.

Despite the extensive literature on defense financing, several gaps remain. First, there is limited research on the long – term impact of alternative funding mechanisms, such as PPPs and defense bonds, on defense sustainability. Moreover, while comparative studies exist, more detailed analyses of specific factors driving differences in defense funding models across countries are needed. Additionally, empirical studies that link specific funding mechanisms to defense performance outcomes are scarce, leaving for further exploration in this area.

3. OVERVIEW OF NATIONAL DEFENSE FUNDING

3.1. Background and Importance

National defense is a cornerstone of a country stability, which requires a substantial financial investment. Funding mechanisms for national defense have evolved significantly over time, by being influenced by historical events, technological advancements and geopolitical shifts. These mechanisms are critical not only for ensuring military readiness and capability but also for maintaining economic stability and public trust. Effective defense funding ensures that a nation can protect its interests,

support international commitments and to respond to emerging threats.

The military is like any other government consumer for research: *“Research is solicited to meet specific needs, and many of these needs that concern social sciences are similar to those of any modern organizations: the need to improve training, to retain personnel, to reorganize tasks that require fewer people, or need to improve training, to retain personnel, to reorganize tasks that require fewer people, or need to deal with problems of information overload and improve the quality and speed of decision making”*(Goolsby, 2005). This kind of bulk for funding opportunities from the military in the last few years have been used in most of the topics such as: human perceptions and cognitions; making decisions under pressure; improving leadership; organizing military forces.

Nowadays, military funding organizations are interested in research of supply chain management and are trying to incorporate into tools and decision aids and fielded. This transition to something that should work in the field has increased the pressure for defense funding agencies and organizations.

3.2. Objectives and Scope

This article is designed to explore and evaluate in a systematic way the different funding mechanisms used by different nations to finance their defense sectors. The primary objective is to understand how these

mechanisms work, their effectiveness in meeting defense needs and broader economic. By examining a range of historical and contemporary examples, the research seeks to identify the patterns and trends that contribute to success of defense financing. It also aims to uncover the inherent challenges and limitations of different funding approaches and concepts, which provide a nuanced understanding of what works and why.

The scope of this research is broad, encompassing a comparative analysis that could be carried out in the sphere of several countries with diverse economic and geopolitical contexts. The case study will include both developed and developing nations, each with unique defense requirements and fiscal constraints. The study covers financing mechanisms such as:

- Traditional government budget allocations.
- Innovative financing solutions such as:
- Defense bonds.
- Public-Private partnerships.
- International assistance.

In addition to identify effective financing mechanisms, the study aims to distil best practices that can be applied in different contexts. This involves not only analyzing the financial aspects of defense funding, but also considering the political,

economic and social factors that influence funding decisions. The research will culminate in practical recommendations for policy makers, offering suggestions for strategies to improve the sustainability and effectiveness of military financing. These insights are intended to guide national defense planners and contribute to the broader field of defense economics and policy, ensuring that nations can maintain robust defense capabilities in a financially prudent manner.

3.3. Research Questions

To effectively guide the “injury” into national defense funding mechanisms, this article is structured around several key research questions. These questions are intended to aid the analysis towards uncovering the different strategies that address funding and the implications for defense capabilities.

The first research question asks: “What are the funding mechanisms used for national defense?”, which is concerned with tracing the different methods used by nations to fund their sectors, ranging from direct government budget allocations to more innovative approaches such as defense bonds and public-private partnerships. In the end, understanding these funding mechanisms is the key to identify the range of options available to policy makers.

The second research question focuses on the effectiveness of these

funding mechanisms: “How effective are these mechanisms in achieving the proposed objectives?”. This question seeks to assess the performance of funding strategies in terms of their ability to ensure military readiness, support technological advances and maintain overall capabilities. Effectiveness is measured not only in financial terms, but also in terms of how these mechanisms support national objectives. It involves assessing the stability and sustainability of funding sources, their adaptability to changing security needs and their impact on security outcomes.

The third research question addresses the practical challenges and limitations associated with national security funding: “What challenges and limitations are associated with these funding mechanisms?”. By exploring this question, in the article it seeks to identify common obstacles that nations face in ensuring adequate and reliable on national security financing. These challenges can include political constraints, economic volatility, bureaucratic inefficiencies and competing budgetary priorities. Understanding these limitations, it will be the key to developing the strategies to mitigate their impact.

Finally, this study will draw lessons from the experiences of different countries to answer the question: “What lessons can be learned from the experiences of different countries?”. The answer will involve synthesizing the findings from

the case studies to identify best practices and practical recommendations for increasing the efficiency and effectiveness of financing defense system, globally.

4. METHODOLOGY: MATERIALS AND METHODS

The methodology outlined in this chapter provides a rigorous framework for investigating national defense funding mechanisms. By combining qualitative and quantitative research methods, the study ensures a comprehensive analysis that integrates financial data with practical insights. After a careful selection of case studies and through analysis of data enable a deep understanding of the effectiveness and challenges of various funding strategies.

The requirement to expose a high scientific content in this study prompted me to employ a various of appropriate research methods which gather into essential information, as well as their “*logical, eloquent and beneficial relationship to get the anticipated research outcomes*”(Minculete et al., 2022).

4.1. Research Design and data collection methods

The research applied for this study is a mixed-method approach, combining qualitative and quantitative methods to provide a comprehensive analysis of national defense funding mechanisms. This kind of approach allow a detailed exploration of both

the financial aspects and broader policy implications in the security funding. Both the qualitative and quantitative components include the analysis data and budget reports from multiple countries to identify trends and patterns in defense spending.

By using the other methods, observation, analysis and comparison, identifies a few concrete aspects and theoretical issues and relationships regarding to change nature of spending funds to ensure a nation's security in the current context.

Data collection is a critical component of this research, will employ data which is obtained from a comprehensive review of academic literature, government reports, financial documents and case studies. This kind of data will provide an historical and contextual backdrop against the case study.

4.2. Case Study Selection

The selection of case studies is pivotal to research, ensuring that the analysis encompasses a diverse range of national contexts and funding mechanisms. The criteria for selecting case studies will include the economic size of the country, geopolitical significance, diversity of funding mechanisms and availability of data. The chosen countries represent a mix of developed and developing nations, each with unique defense funding challenges and strategies.

This methodological approach sets the stage for the comparative analysis that follow, providing

valuable insights into the best practices for funding national defense.

5. CONCEPTS RELATED TO SPENDING ON SECURITY AND NATIONAL DEFENSE SYSTEMS AT THE EURO-ATLANTIC ALLIANCE LEVEL

The Euro-Atlantic Alliance, accounts for a significant share of global defense spending, thus underlining its essential role in maintaining regional and global security. Understanding the concepts related to security and national defense spendings within this alliance is essential to understand how resources are allocated, managed and used to support collective security principles. This chapter aims to elucidate the various factors that influence military spending in the Euro-Atlantic context, providing a comprehensive analysis of economic and political dimensions that shape these decisions [1].

At the heart of Euro-Atlantic security spending is a commitment to collective security, which requires substantial and sustained investment in military capabilities, infrastructure and technological advances. Members states financial contributions are guided by NATO's guidelines on security spending, which recommend allocating at least 2% of GDP to the military force. However, actual spending patterns are influenced by a multitude of factors, including threat

perceptions, economic constraints, technological advances and political will. By exploring these concepts, this chapter seeks to provide a deeper understanding of how the Euro-

Atlantic Alliance navigates through the complex security budget landscape to maintain its advantage and fulfil its security mandates.

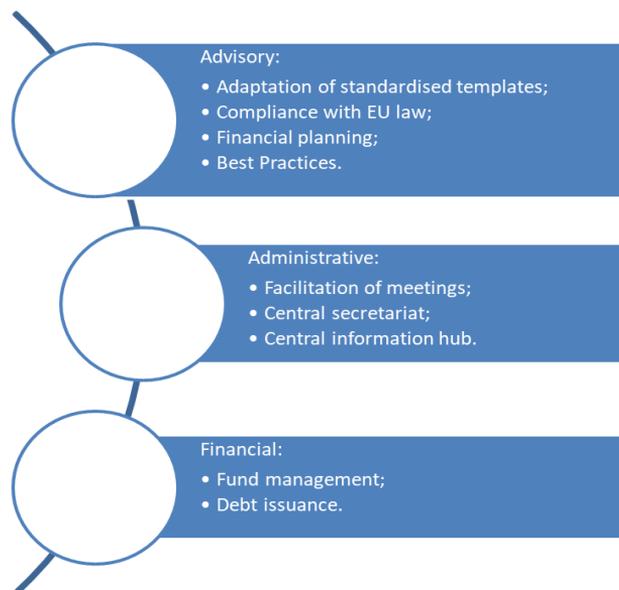


Fig. 1 Implementing Financial Toolbox in the Euro-Atlantic Alliance

Source: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52017DC0295>

These influencing factors are represented by the following concepts of the financing mechanisms of military budgets at the level of individual nations:

- Conceptual of Framework of Defense and Security Expenditure.
- Political.
- Economic Constraints and Opportunities.
- Technological Advancements.

- External Threats and Alliance Commitments.

Conceptual of Framework of Defense and Security Expenditure, it refers to expenditure encompasses the maintenance and enhancement of a nation’s military capabilities and security infrastructure. This includes funding for personnel, equipment, operations, maintenance, research, research and development. The overarching goal is to ensure national security and maintain peace and stability both domestically and

internationally. This expenditure is more often influenced by a series of factors, starting with the following:

- Objectives.
- Economic Conditions.
- Political Considerations.
- External threats.

Political factors are usually playing a pivotal role in shaping defense and security expenditure. Governments allocate resources based on their national security strategy, which is influenced by perceived threats, geopolitical interests and alliance commitments. For example, countries which are in volatile regions would prioritize defense and security spendings to counter regional threats meanwhile nations in more stable environments might focus on modernization and technological advancements.

Political considerations, including government ideology and public opinion, also significantly impact defense budgets. In the democratic nations, there is often a witness budgetary debates where security spending must be justified to the electorate, while authoritarian regimes might allocate resources with less public scrutiny, but also potentially face internal power dynamics. Another example of political choices is considered to be *“inconsistent with the regional and national security challenges facing the state are those of political class in the Republic of Moldova, which through its defense funding decisions,*

described as “chronic underfunding”, has contributed to degradation of defense sector”(Florîşteanu, 2023).

Economic Constraints and Opportunities usually can work together. Both economic and fiscal conditions are a fundamental determinant of defense and security expenditure. Nations with robust economics can allocate more substantial resources into security without compromising other essential services. In contrast, countries facing economic constraints may struggle to balance into military forces spending with other critical needs, such as healthcare, education, and infrastructure. Economic growth can create opportunities for increased defense budgets, while economic downturns often lead to budget cuts or relocation of funds. This military budget allocation can also act as an economic stimulus, driving technological innovation and providing employment, thereby creating a cyclical relationship between economic health and security expenditure.

Technological advancements can significantly influence security expenditure, with development and integration of cutting – edge technologies such as artificial intelligence, cyber security and advanced weaponry require a substantial investment. This funding can drive for technological superiority not only impacts budget allocations but also necessitates continuous upgrading and modernization of

military assets. The rapid pace of technological change can change the meaning of military expenditure for research must be very flexible and adaptable to incorporate new innovations and address emerging threats effectively.

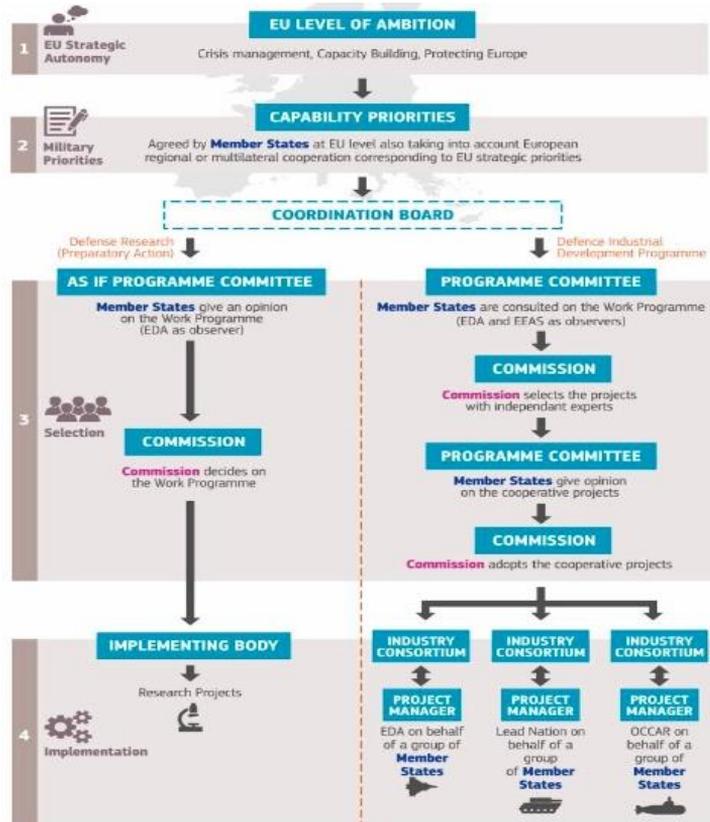


Fig. 2 Course of action strategy for military equipment procurement

Source: <https://eurollex.europa.eu/legalcontent/EN/TXT/?uri=CELEX:52017DC0295>

External Threats and alliance commitments are critical factors that would shape into security expenditure. The presence of external threats, such as hostile neighboring countries or nonstate actors, compels nations to allocate significant resources towards security. Additionally, commitments to international alliances and security agreements, such as NATO, require

member states to meet certain spending targets and contribute to collective security efforts. Such commitments often drive nations to maintain or increase their budgets to fulfil their obligations and strengthen international partnerships. The global security environment and dynamics of international relations thus play a

crucial role in determining the scale and direction of defense spending.

6. COMPARATIVE ANALYSIS OF FINANCIAL MECHANISMS FOR MILITARY BUDGETS

Understanding the diverse approaches to national defense funding is essential for identifying best practices and improve the efficacy of financial strategies in the security sector. This chapter represent a comparative analysis of two countries, each employing distinct funding mechanisms which are tailored to their unique economic, political and tactical contexts.

The rise in global military spending in 2023 can *“be attributed primarily to the ongoing war in Ukraine and escalating geopolitical tensions in Asia and Oceania and the Middle East”*(“Trends in World Military Expenditure, 2023,” n.d.). Military expenditure went up in every part of geographical regions, as a major spending increases recorded in Europe, Asia and Oceania and in the Middle East.

These selected countries represent a spectrum of security funding approaches: a Nordic country utilizing innovative public-private partnerships, a major global power relying on traditional government budgeting and a developing nation leveraging international assistance and regional cooperation. These cases provide a comprehensive overview of how various countries address the

challenges of financing their defense needs amidst differing economic conditions and environments. By exploring these diverse strategies, this chapter aims to uncover common patterns, unique solutions and potential pitfalls associated with each funding mechanism.

However, through a comparative analysis of the two countries, this chapter seeks to identify best practices that can inform defense policy makers planners. By highlighting the effectiveness of different funding approaches and the challenges encountered, the analysis offers valuable lessons for improving the efficiency and sustainability of security financing. Finally, this chapter brings to the forefront a broader understanding of defense economics and policy, offering practical recommendations for optimizing security financing mechanisms in different national contexts.

Therefore, the two countries were chosen for studying the mechanisms and then for comparative analysis are Sweden and Romania, because of their different methods for financing their military budgets, different fiscal policies, but in the end, they share a common current threat.

The comparative analysis of defense financing methods between Sweden and Romania provides a compelling exploration of how different geopolitical, economic and historical contexts shape national security strategies. Sweden, a Nordic

country known for its neutrality and advanced technological capabilities, employs a funding mechanism that emphasizes robust government allocations complemented by public-private partnerships. In contrast, Romania, a country in south-eastern Europe and a member of NATO, relies more on traditional public budgets, along with significant contributions from international alliances and security cooperation agreements. This comparison highlights the different approaches these countries take to ensure their national security and the efficiency of their defense spending.

6.1. Sweden: Innovative defense funding in the Nordic Region

Sweden, as a Nordic nation, employs a unique blend of traditional government budget allocations and innovative public – private partnerships to fund its security sector. This approach will leverage the strengths of both public oversight and private sector efficacy.

In response to the major change of security environment after the illegal invasion in 2014, militarily non-

aligned Sweden and Finland were developing their common defense cooperation with NATO and with USA and started to strengthen a bilateral defense relationship.

6.1.1 Funding military spending

The Scandinavian country, which during the Cold War dedicated up to four percent of its GDP to the dense budget, had drastically slashed its spending during the ‘90s till early 2000s to about one percent, but after 2021, Sweden’s defense budget went to 6.6 billion \$, which it will rise to 9.3 billion \$ by 2025.

In the 2020, its budget already amounted to 1,2 percent of GDP and it will increase to 1,5 in a few years with announced investments.

Following the Ukraine crisis, Sweden has gradually increased the amount spent on military, and according with SIPRI, their security budget has been growing from 2013 till 2018 with 7,1 billion \$, which represents an increase with 17%, in five years, as it’s represented in the figure below.

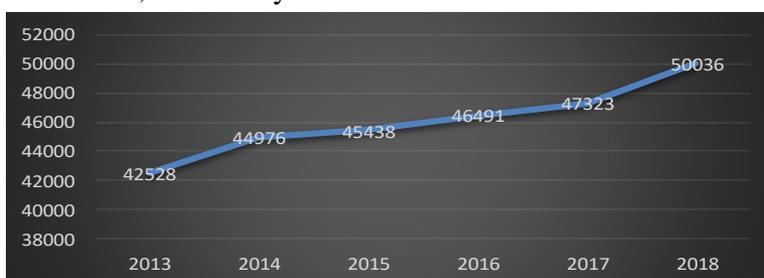


Fig. 3 Swedish security spending in billions of SEK(Kennedy and Schmitt, n.d.)

In its report for the next Defense Resolution period, the Swedish Defense Commission announced a proposal for the direction of total

defense economy which include additional funds for military budget, as is shown in the forecast below.

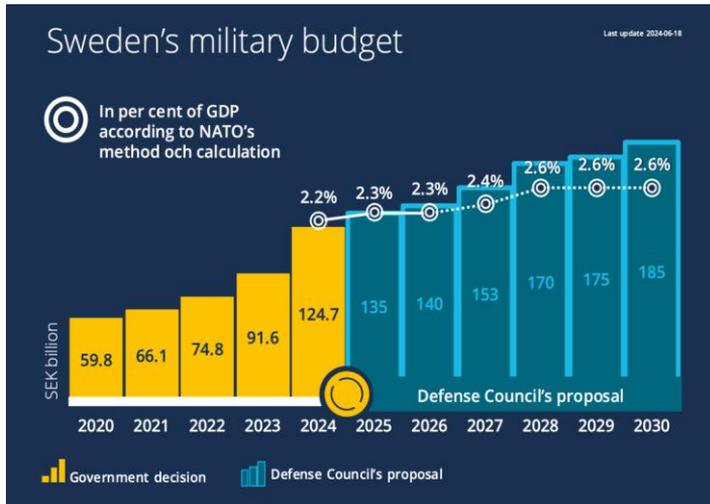


Fig. 4 Sweden’s military budget till 2024 and a forecast till 2030

Source: <https://www.government.se/government-policy/military-budget/>

The figure above illustrates the projected evolution of Sweden’s military budget from 2020 to 2030, showing both actual government decisions and future proposals by Defense Council.

From 2020 to 2023, Sweden’s defense budget gradually increased from 5,82 billion dollars to 8,92 billion dollars, reflecting a steady rise in military expenditure. This corresponds to an increase in spending as a percentage of GDP, from 1,5% in 2020 to 2,2% by 2024.

A significant jump is projected for 2024, with the budget reaching 12,14

billion dollars, marking a sharp increase in Sweden’s military investment. This aligns with the NATO recommendation for its members to allocate at least 2% of GDP to defense spending, as Sweden prepares for increased defense capabilities.

Starting in 2025, the Defense Council’s proposal suggests continued increases, with the budget projected to rise to 18,01 billion dollars by 2030. The defense expenditure as a share of GDP is expected to stabilize at around 2.6% from 2026 onward. This increase underscores Sweden’s

commitment to strengthening its military posture in response to evolving global security challenges and its potential integration into NATO. The evolution of Sweden’s military budget, particularly the significant spike in 2024, signals a shift towards prioritizing national defense, with long – term plans to

sustain higher levels of military spending over the next decade.

Funds will be allocated into 13 categories and these funds will be used for overall expenditure for military budget, from the central government funds.

Table 1 Military defense in the central government budget

Source: <https://www.government.se/government-policy/military-defence/military-defence-in-the-central-government-budget/>

1:1	Unit activities and preparedness
1:2	Swedish Armed Forces contributions to international missions
1:3	Acquisition of equipment and facilities
1:4	Research and technical development
1:5	Swedish Foreign Intelligence Inspectorate
1:6	Swedish Defense Conscription and Assessment Agency
1:7	Officer training
1:8	National Defense Radio Establishment
1:9	Swedish Defense Research Agency
1:10	Boards
1:11	Swedish Defense Materiel Administration
1:12	Foreign Intelligence Court
1:13	Swedish Agency for Defense Analysis

The primary source of security funding in Swedish country is through government budget

Allocations, which are determined annually based on security reviews and the implemented a series of public-private partnerships to finance specific defense projects. These partnerships allow the private sector to

invest in defense infrastructure, such as military bases and communication systems, under long-term contracts.

6.1.2. Challenges and Opportunities

Sweden faces several challenges in maintaining a sustainable military budget while ensuring its defense

capabilities meet both national and regional security needs. One of the primary challenges is balancing economic constraints with the growing pressure to increase defense spending. As Sweden transitions toward a 2.6% of GDP defense budget, there are concerns about long – term economic sustainability of such expenditures, especially in a country with a strong social welfare system. Budgeting for defense competes with social services and infrastructures needs, making defense spending a politically sensitive topic.

However, Sweden also enjoys a range of opportunities. Its robust economy provides a strong tax base that allows for flexible funding of its military. Furthermore, Sweden's sophisticated defense industry offers advantage, as the country can invest in domestic defense technologies and partnerships with other nations. International cooperation, especially in the context of its potential NATO membership and collaboration with European Union, also opens new avenues for shared defense funding and procurement efficiencies. In the context, Sweden's financial mechanisms for defense spending are likely to be more stable, especially with a focus on innovation and technology-led defense.

6.2. Romania: International Assistance and Defense Cooperation in Developing Nation

Romania, as a developing nation, supplements its limited defense

budget with international assistance and defense cooperation agreements. This approach allows the country to fortify its guarding capabilities despite economic and fiscal constraints.

6.2.1. Funding military spending

Given Romania's membership in NATO, the financing of military budget and infrastructure development is not limited to traditional methods of funding, but also receives significant funds through international military aid programs and bilateral security cooperation agreements. These funds are used for various purposes, including military training, equipment procurement and infrastructure development. In addition, the country must participate in regional security initiatives, which provide access to shared resources and expertise.

The Black Sea region is an interest in Romania and must be secure and predictable area – essential for national, European and transatlantic security. Romania must respect its commitment to ensure funding of at least 2% of GDP for defense, in which case, nowadays it brought benefits for the country's security.

Continuation of these efforts on capability development through the implementation of the provisions of the Romania Army 2040 and Multi-Year Plan for Romanian Army, the main lines of immediate interest being [2].

- Elaboration and implementation of the subsequent action plans and identification

solutions which should be focused on co-opting the Romanian industry in the implementation of multi-year plan for its equipping and modernizations, to ensure a pragmatic industrial military resilience.

- Initiating armament programs worth over 100 million euros.
- Allocating the financial resources necessary for the participation of Ministry of Defense, together with economic operators from the national defense industry in NATO and EU projects in cyber, UAV fields, in line with priorities set out in the White Defense Charter.
- Depending on budgetary allocations, implementation of the programs on the budgetary allocations and implementation of the programs

already initiated, steps which will be taking to initiate or implement other procurement programs to provide new capabilities to the Romanian Army’s force structure.

In recent years, Romania has managed to attract both NATO funds, also known as NSIP and certain critical infrastructure development projects, which have led to a strengthening of national defense system.

The amounts allocated for the major development equipping and modernization programs of Romanian Army from its own budget are shown in the table below.

Table 2 Funds earmarked for major equipment programs between 2021 and 2024(thousand dollar)

Source: <https://sgg.gov.ro/1/wp-content/uploads/2021/03/CARTA-ALBA-A-APARARII-.pdf>

	Indicator Name	2021	2022	2023	2024
1	Total Ministry of Defense	5.064.862,68	5.324.678,26	5.706.541,73	6.129.065,91
2	Major equipment purchases	1.194.586,25	1.387.822,04	1.632.621,69	1.950.672,58

6.2.2 Challenges and Opportunities

Romania’s defense budget faces significant pressure due to its

geopolitical location and the need to modernize its military to meet NATO standards. The reliance on external borrowing and foreign military aid can

be both a strength and a weakness. On the one hand, foreign support, particularly from NATO and the EU, helps Romania maintain a level of defense capacity that would be difficult to sustain solely through domestic financial mechanisms. On the other hand, this reliance also makes Romania vulnerable to external economic or political shifts, such as changes in NATO funding priorities.

Opportunities for Romania include its importance within NATO, which provides leverage for additional

external military funding and cooperation in defense initiatives. Additionally, the growing importance of the Eastern European front in NATO’s planning puts Romania in a favorable position to receive further financial and technological support. However, Romania must continue to improve its internal financial mechanisms, such as better tax collection and allocation of resources, to ensure sustainable long-term military funding.

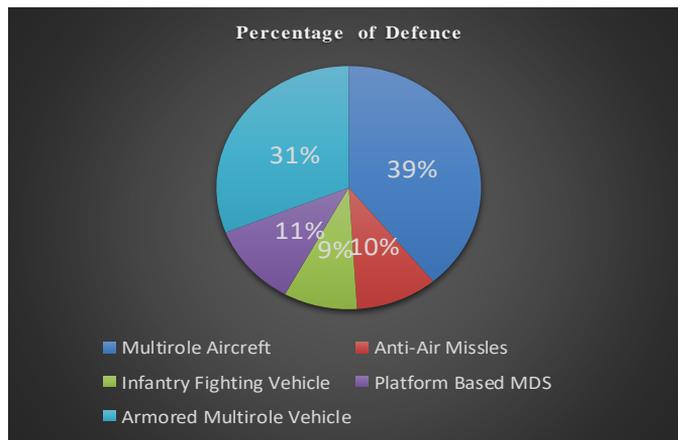


Fig. 5 Top Defense in Romania Segments by Value by the end of 2028

6.3. Comparative analysis of national security funding between the two countries

The study is examining the distinct financing mechanisms of Sweden and Romania, this study seeks to uncover the strengths and weakness inherent in each approach. The Swedish model, with its emphasis on innovation and private sector involvement, provides

insight into the benefits and challenges of integrating private investment in national security. At the same time, Romania’s dependence on NATO support and international assistance emphasizes the importance of alliances and external funding in

maintaining guard capabilities. Through this comparative analysis, the study aims to draw lessons that can inform defense financing strategies, particularly for countries navigating complex terrain and geopolitical changes.

Common models. Both countries recognize the importance of providing reliable and sustainable funding for national security. Whether through traditional budgeting, public – private partnerships or international assistance, each nation has developed mechanisms to ensure that its military capabilities are adequately funded. Another common thread is an emphasis on aligning defense funding with priorities, ensuring that resources are directed to areas of greatest need.

Unique strategies. Sweden’s innovative use of public – private partnerships stand out as a strategy that could combine public oversight with private sector efficiency, attracting significant investment in security infrastructure. Romania is currently somewhat dependent on international assistance, demonstrating how developing countries can leverage global partnerships to

enhance their guarding capabilities despite limited domestic resources.

Challenges and Best practices. Each approach has its own challenge. For instance, in Sweden, there must be a balance between public control and private sector involvement, ensuring transparency and accountability in PPPs contracts, while in Romania it must deal with vulnerabilities associated with dependence on international aid and potential influence on national defense policies.

Both countries can benefit from diversifying their funding sources by combining traditional government budgets with innovative financing mechanisms. Ensuring transparency and accountability in security funding processes is essential, as is maintaining flexibility to respond to emerging threats. In the end, international cooperation and assistance can play a key role in strengthening defense capabilities, in particularly, for developing countries.

These recommendations are intended to guide national defense planners in developing sound, sustainable and adaptable financing strategies that respond to evolving security needs of their countries.

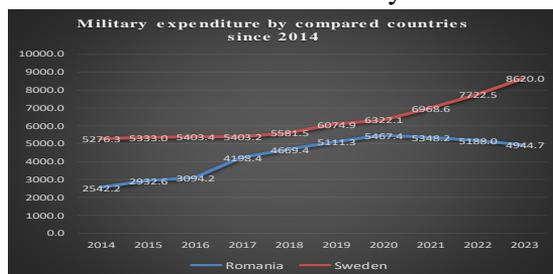


Fig. 6 Comparison military expenditure between Romania and Sweden (US million \$)

6.4. Key Comparative Findings

The comparative analysis between Sweden and Romania reveals distinct differences in their financial mechanisms for military budgets, driven by their unique geopolitical circumstances and economic capacities. Sweden, with its strong economy and advanced defense industry, can allocate a higher proportion of its GDP towards defense spending, with a projected increase to 2.6% by 2026. This financial flexibility allows Sweden to invest in long – term modernization programs, focusing on advanced technology, defense infrastructure and personnel development. In contrast, Romania, while meeting NATO's 2% of GDP target, faces challenges in sustaining this level of investment due to its smaller economy and reliance on external support.

One significant finding is that Sweden's defense financing is largely self – sustained, relying on domestic taxation and budgetary allocation, with supplementary support from its defense industry and partnerships within the European Union. Sweden's ability to innovate and invest in its own defense technologies, combined with its potential NATO membership, strengthens its position within the broader European defense framework. Romania, on the other hand, relies heavily on external funding, particularly from NATO and the EU, as well as foreign military aid. While this allows Romania to access critical defense resources, it also exposes the country to vulnerabilities if external funding decreases or shifts in focus.

Another key finding is the efficiency of financial mechanisms in both countries. Sweden's streamlined budgeting processes, transparency and emphasis on defense modernization provide a more efficient use of resources, ensuring that its defense spending translates into tangible military capabilities. Romania, while committed to modernization, faces challenges in optimizing its defense budget, with significant portion going toward personnel costs and procurement from foreign sources. The comparative analysis shows that while both countries are increasing their defense spending, Sweden's approach is more self – reliant and technologically focused, whereas Romania's strategy is dependent on external support and international partnerships to meet its defense needs.

6.5. Lessons for Other Nations

The comparative analysis of Sweden and Romania's defense financial mechanisms provides valuable lessons for other nations seeking to optimize their military budgets. Countries with stronger economies and robust industrial bases, like Sweden, should focus on long – term investments in defense technologies and partnerships. Nations with more constrained budgets, like Romania, can benefit from external alliances, but must also seek ways to make their defense spending more efficient and less reliant on external sources.

Other countries can also learn from the importance of aligning defense spending with geopolitical realities. Sweden's growing investment in

defense is a response to shifting security concerns in the Baltic region, while Romania's spending is driven by its position on NATO'S eastern flank. Both cases highlight the need for nations to tailor their defense spending to their specific security environments and economic capacities.

6.6. Conclusions of Comparative Analysis between Sweden and Romania

The analysis of financial mechanisms for military budgets in Sweden and Romania demonstrates how different geopolitical, economic and factors which shape each country's approach to defense funding. Sweden, with a more stable economy and a highly developed defense industry, can allocate more resources towards advanced military capabilities and long – term sustainability. Romania, constrained by a smaller economy, relies more heavily on external funding sources, particularly from NATO and the EU, to meet its defense needs.

Despite these differences, both countries face the challenge of maintaining military readiness and sustainability in the face of growing regional and global security threats. Sweden's increasing military spending as a share of GDP, alongside Romania's commitment to NATO's 2% target, reflects a broader trend of rising defense budgets across Europe as countries respond to new security challenges.

Looking ahead, both Sweden and Romania are likely to continue increasing their defense budgets in response to growing global instability and rising security threats in their

respective regions. Sweden's potential full integration into NATO may further drive its military investments, while Romania's position on NATO's eastern front will ensure it remains a key player in the alliance's defense strategies. Both countries will need to focus on making their defense spending more efficient and sustainable in the long run.

As a final remark, the comparison between Sweden and Romania highlights the diversity of approaches that nations can take in financing their defense needs. While economic capacity plays a significant role, international partnerships, alliances and defense industry collaboration are equally important in shaping military capabilities. The ongoing evolution of security challenges in Europe underscores the need for countries to continuously adapt their financial mechanism to ensure military effectiveness and long – term sustainability.

7. CONCLUSION

This study provides a comprehensive analysis of various funding mechanisms employed by different nations to support their national defense. The findings have significant implications for policymakers, defense planners, and scholars offering valuable insights into how countries can optimize their defense funding strategies in alignment with their unique political and economic. By examining a range of approaches – from traditional government appropriations to innovative public-private partnerships – this research underscores the

importance of tailoring defense funding mechanisms to meet the specific needs and challenges of each nation.

One of the key implications of this study is needed for a more nuanced understanding of the trade-offs involved in different funding strategies. For instance, while direct government funding offers stability and control, it may lack the flexibility required to respond to rapidly changing security environments. On the other hand, reliance on external funding sources or public-private partnerships can introduce risks related to accountability and long-term sustainability. Policymakers and defense planners will benefit from these insights as they seek to balance the need for robust defense capabilities with fiscal responsibility and economic stability.

The value-added of this research lies in its comparative approach, which allows for the identification of the best practices and potential pitfalls across different national contexts. Unlike prior studies that often focus on a single country or a narrow aspect of defense funding, this study offers a broad, tactical perspective that considers the diversity of approaches and their implications for national security. By situating these findings within a global context, the study contributes to a more holistic understanding of how defense funding mechanisms can be designed to support both short-term objectives and long-term goals.

The comparative study of funding mechanisms for national defense reveals that the financial architecture of a country's military budget is deeply intertwined with its economic capacity,

geopolitical context and security needs. As demonstrated by the case studies of Sweden and Romania, nations adopt distinct approaches to defense financing based on their fiscal capabilities, external alliances and long – term objectives. Sweden's robust domestic economy and defense industry allow for greater self – sufficiency, enabling sustained investments in modernization and innovation. Romania, while meeting NATO's 2% of GDP requirement, is more dependent on external funding and alliances, particularly with NATO and the European Union, to bolster its defense capabilities.

However, this study is not without its limitations. The complexity and sensitivity of defense funding make it challenging to obtain comprehensive and comparable data across different countries. Furthermore, the study's reliance on publicly available information means that certain nuances – particularly those related to classified or confidential funding arrangements – may not be fully captured. Additionally, while the study attempts to account for the diverse political and economic, and contexts of different nations, it may not fully capture these unique circumstances that influence defense funding decisions in each case.

Comparing the results of this study to prior research reveals both consistencies and deviations. For example, while previous studies have highlighted the efficiency of centralized government control over defense budgets, this research suggests that a more diversified approach, including partnerships with private sector entities,

can provide additional flexibility and innovation, albeit with increased complexity in oversight and management. This finding highlights the evolving nature of defense funding and the need for continuous adaptation in response to global and domestic challenges.

In conclusion, this study provides critical insights into funding of national defense, offering practical recommendations for optimizing defense budgets in a complex and dynamic global environment. The findings not only contribute to the academic discourse on defense economics but also offer actionable guidance for those involved in the planning and implementation of national defense strategies. As nations continue to navigate the challenges of the 21st century, the insights from this will be invaluable in shaping defense funding mechanisms that are both effective and sustainable.

ENDNOTES

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