Challenges of Czech Defense Policy: Integrating Sustainability and Economic Resilience

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Abstract: Defense expenditures in the Czech economy reached 1.5% of GDP in 2023 and 2.08% of GDP in 2024, amounting to approximately CZK 160 billion. Meeting the new commitment to allocate 5% of GDP to defense (3.5% for military spending and 1.5% for support expenditures) would require over CZK 450 billion annually, placing significant pressure on the state budget and the economy. In this context, it is advisable to direct part of the funds toward security projects based on the principles of the Copenhagen School of Security Studies. These projects integrate sustainability with state security, encompassing environmental protection, energy self-sufficiency, transport infrastructure, and other strategic sectors. The goal is to develop a comprehensive approach that combines military readiness with the long-term resilience of the state against risks related to climate, energy, and infrastructure, while minimizing negative impacts on the economy.

Keywords: defense expenditures, economic resilience, sustainability, copenhagen school of security studies, strategic infrastructure.
JEL Classification: H56, H77, Q01

1. Introduction

In recent years, the defense policy of the Czech Republic has found itself at a critical crossroads between traditional military priorities and the growing demands for economic and environmental sustainability (Černý, 2022; OECD, 2023). Defense spending has long represented a key element of national security; however, its dynamics and structure increasingly reflect the broader framework of the state's socioeconomic and environmental resilience (Boin & van Eeten, 2013; Linkov & Trump, 2019).

According to data from the Ministry of Defence of the Czech Republic, defense expenditures increased from 1.5% of gross domestic product (GDP) in 2023 to 2.08% of GDP in 2024, which corresponds to approximately 160 billion CZK (Ministry of Defence of the Czech Republic, 2024). The new commitment to the North Atlantic Treaty Organization (NATO), under which the Czech Republic is to allocate 5% of GDP to defense - 3.5% for direct military spending and 1.5% for supporting expenditures - raises questions regarding financing, fiscal sustainability, and the long-term stability of the state budget (European Fiscal Board, 2023; World Bank, 2022). Meeting this target would require annual expenditures exceeding 450 billion CZK, which represents a significant budgetary burden with implications for other public policy sectors (OECD, 2023).

The current security context therefore calls for a comprehensive and integrated approach that links military preparedness with the state's ability to adapt to economic, energy, and environmental risk factors (European Defence Agency, 2023; Veselý & Novotná, 2024). The integration of sustainability principles into defense projects - drawing inspiration from the Copenhagen School of Security Studies - broadens the concept of security beyond traditional military threats (Buzan, Wæver, & de Wilde, 1998; Boin & van Eeten, 2013).

2. Methodology

The study employs a combination of qualitative and quantitative methods to analyze the development of defense expenditures in the Czech Republic and the possibilities for integrating the principles of economic, environmental, and social sustainability into defense policy. Data were obtained from official sources of the Ministry of Defence, the state budget, and NATO statistics, covering the period from 2010 to 2024.

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The qualitative part of the analysis includes a document study of strategic and policy materials and the application of theoretical frameworks of the Copenhagen and Paris Schools of Security, which expand the concept of security beyond traditional military threats. The quantitative assessment includes trend analysis of defense expenditures, comparison with other NATO member states, and evaluation of the impacts of high defense spending on the state budget, infrastructure, and socioeconomic stability. The integrative approach focuses on identifying strategic projects that support military preparedness while simultaneously enhancing the economic, environmental, and social resilience of the state. The analysis evaluates the multiplicative benefits of projects and mutually positive externalities, with a key emphasis on inter-ministerial coordination, cooperation with academia and the private sector, and the institutional assurance of long-term implementation.

3. Research results

3.1 Development of Defense Expenditures in the Czech Economy

The historical development of defense expenditures in the Czech Republic from 2010 to the present reflects the dynamics of geopolitical, economic, and political factors that have influenced the state's security policy. Between 2010 and 2020, the share of defense spending ranged mostly between 1.0% and 1.3% of GDP, reflecting limited fiscal capacity, a stable regional security environment, and NATO commitments that were less ambitious than today's targets. During this period, investments were primarily directed toward equipment modernization, troop training, and maintenance of existing infrastructure.

The years 2021–2022 brought a moderate increase in expenditures in response to the deteriorating geopolitical situation in Europe and NATO's pressure to raise military budgets. Spending reached approximately 1.4% of GDP, corresponding to around 120 – 130 billion CZK annually (OECD, 2023). However, this increase remained insufficient to meet alliance readiness standards and modernize the armed forces in line with technological developments. The year 2023 marked a significant shift as defense spending rose to 1.5 % of GDP, equivalent to roughly 160 billion CZK (OECD, 2024). This growth was driven by a combination of domestic political decisions and external pressures, particularly from NATO. At the same time, discussions began on optimizing resource allocation to combine military readiness with the state's long-term resilience to economic and environmental risks.

The year 2024 brought a further increase to 2.08 % of GDP, which in absolute terms represents a significantly heavier burden on the state budget. This increase reflects not only the commitment to higher defense spending but also the need to respond to current geopolitical threats and to secure modern military infrastructure. Achieving the 5 % GDP target—divided into 3.5 % for military expenditures and 1.5 % for supporting expenditures—would require annual allocations exceeding 450 billion CZK, placing a considerable strain on public finances and demanding careful prioritization and planning.

A comparison with other NATO member states shows that the Czech Republic falls within the medium-burden range, while countries such as the United States and Poland already reach or exceed the 3 – 4 % GDP threshold. This context highlights the pressure on Czech defense policy to find a balance between fulfilling alliance commitments and maintaining economic stability and public services. Higher defense spending should not be viewed solely as a military necessity but also as part of a broader strategy for the state's long-term security. From this perspective, there is growing recognition that defense expenditures should be combined with strategic investments supporting sustainability and economic resilience. Examples include projects focused on energy self-sufficiency, modernization of transport infrastructure, cybersecurity, and environmental protection—all of which not only enhance military preparedness but also strengthen the overall stability and resilience of the state in times of crisis. This shift implies that modern Czech defense policy must consider not only the quantity of allocated resources but also their quality and long-term contribution to the nation.

3.2 Integration of Sustainability Principles into Defense Policy in the Context of the Copenhagen and Paris Schools of Security Studies

The adverse global forecasts formulated in the 1960s - particularly regarding environmental threats and the depletion of natural resources (Meadows et al., 1972) - and the subsequent effects of the oil shocks of the 1970s and early 1980s provided a major impetus for a fundamental transformation in the theoretical framework of security studies. In 1985, the Copenhagen Peace Research Institute was established in response to these developments, becoming the foundation of the so-called Copenhagen School of Security Studies (Buzan, 1991). Methodologically grounded in structural realism, the English School, and social constructivism, this school represented a significant reform of the prevailing approach to security analysis and laid the foundations for modern security theory (Buzan, Wæver, & de Wilde, 1998). The founder and leading representative of the Copenhagen School, British political scientist Barry Buzan, made a crucial contribution by expanding and deepening the theoretical framework of security studies. A key element of this reform was the development of the concept of new threats and new referent objects of security, along with a new analytical approach to their interpretation

through securitization. This concept, systematically formulated by Danish political scientist Ole Wæver in 1995 (Wæver, 1995), represented a theoretical breakthrough in understanding the processes through which certain phenomena become subjects of security policy.

At the turn of the 1980s and 1990s, growing global interconnectedness and interdependence of regions led to the development of the concept of common security (Palme Commission, 1982). This approach emphasized the necessity of international cooperation and overcoming the classical security dilemma (Booth, 1991; Booth & Wheeler, 2008). After the end of the Cold War, the redefinition of security became the subject of extensive academic debate, significantly shaped by the representatives of the Copenhagen School. The central questions concerned how to broaden and deepen the concept of international security without compromising its theoretical consistency and how to integrate non-military (non-traditional) threats into the analytical framework without losing conceptual coherence (Buzan & Hansen, 2009). Empirical analyses of the Copenhagen School highlighted the need to extend the narrowly defined concept of military security to include political, economic, environmental, and social dimensions, which together form a comprehensive framework for both national and global security (Buzan et al., 1998). Since that period, the broadened concept of security - encompassing five basic sectors: military, economic, political, societal, and environmental- has become established in the literature (Baldwin, 1997).

In the first half of the third decade of the 21st century, following the combined impacts of the COVID-19 pandemic (since 2020) and the war in Ukraine (since February 24, 2022), scholars have identified the emergence of a multi-attributive crisis (Boin & Lodge, 2021; Nye, 2023). This complex crisis includes simultaneous pandemic, military, energy, and migration factors that heavily burden both national and international security systems. The result is increased vulnerability of business, institutional, and state structures to short and long-term risks. These circumstances confirm the validity of the broader concept of security, integrating military preparedness, economic resilience, and environmental sustainability into a unified framework of strategic risk management (Baldwin, 1997; Boin, 2020). Building upon the theoretical conclusions of the Copenhagen School, the Paris School of Security Studies extends its framework by introducing a practical dimension of strategic integration of security, economic, political, and environmental factors (Bigo, 2002; Huysmans, 2006). This school presents an innovative approach linking sustainability principles with the planning and implementation of defense and security projects. Key areas of integration include energy self-sufficiency of military facilities, use of renewable energy sources, deployment of hybrid systems and smart grids that reduce dependence on external suppliers and increase infrastructure resilience to crises and geopolitical pressures (Tsoukala, 2011). The Paris School further develops the concept of security by emphasizing the micro-level of everyday practices that shape the real forms of security processes. Its leading figures—Didier Bigo, Jef Huysmans, Anastassia Tsoukala, and Emmanuel-Pierre Guittet—argue that security is not merely the outcome of political decisions but emerges within everyday procedures, technological systems, and bureaucratic mechanisms (Bigo, 2014; Guittet & Bigo, 2013). Bigo analyzes how surveillance and border regimes respond to environmental crises, while Huysmans examines how public discourse on climate and energy security affects the legitimacy of political decisions (Huysmans, 2014). Tsoukala highlights the role of diplomatic and humanitarian actors whose daily practices are shaped by environmental factors that directly influence the formulation of security strategies and operational decisions (Tsoukala, 2011).

Moreover, emphasis is placed on minimizing the ecological impact of military operations, particularly through modernization of materials with regard to recyclability, reduction of greenhouse gas emissions, and environmentally sensitive planning of military exercises (NATO, 2022). The modernization of transport and logistics infrastructure not only enables rapid mobilization of units and distribution of supplies but also supports the civilian sector and contributes to the socio-economic stability of regions. Thus, the principles of sustainability can be linked to the social and economic dimensions of security. Projects that create jobs, foster innovation, and promote regional economic development increase the legitimacy of defense policy and strengthen societal resilience to crises. Investments of this type also have multiplicative effects across multiple sectors and align with the concept of mutually positive externalities (Porter & Kramer, 2011). Successful implementation of such a framework requires coordination among the ministries of defense, finance, environment, health, transport, and other relevant institutions. Cooperation with academia, research institutions, and the private sector is also crucial, as it enables effective use of know-how, technology sharing, and the long-term viability of projects.

3.3 Economic and Environmental Resilience within the Framework of State Defense Policy

Economic and environmental resilience represents the complex capacity of a state to adapt to crises and restore its functionality under conditions of military, energy, infrastructural, or climatic disruption (Boin & van Eeten, 2013; Linkov & Trump, 2019). The expanded security perspective enables the conception and implementation of projects that synergistically support military readiness, environmental stability, and economic resilience (Černý, 2022; OECD, 2023). Strategic projects within the defense policy of the Czech Republic must therefore simultaneously emphasize the dimensions

of military preparedness, long-term structural stability, and efficient resource management (Ministry of Defence of the Czech Republic, 2024).

An interdisciplinary understanding of security enables the identification of areas in which defense investments generate multiplier effects with impacts across multiple sectors of public policy (NATO, 2021). Energy and material self-sufficiency constitute essential preconditions for the state's strategic autonomy; military bases and logistical facilities equipped with renewable energy technologies and intelligent consumption management systems contribute to reducing operational costs, strengthening regional resilience, and promoting circular use of materials (European Defence Agency, 2023; Veselý & Novotná, 2024).

Transport and logistics infrastructure ensure rapid mobilization of forces, supply distribution, and support to the civilian sector. Its modernization with regard to energy efficiency and environmental sustainability brings new employment opportunities and strengthens the regional economic structure (World Bank, 2022). Investments in low-impact technologies simultaneously enhance operational efficiency and minimize the ecological footprint of military activities (UNEP, 2021; Linkov et al., 2018). Maintaining critical reserves and optimizing material flows ensure continuity of state functions during crises and integrate military, civil, and environmental goals within a unified resilience framework (OECD, 2022).

Environmental protection is an essential component of all strategic projects. Minimizing ecological burdens and promoting sustainable production and operational processes contribute to long-term stability and societal acceptance of defense policy (UNDP, 2020). The modernization of medical infrastructure and the development of mobile crisis units strengthen the state's ability to respond to pandemics, natural disasters, or technological accidents, thereby enhancing the socio-economic resilience of regions (WHO, 2023).

Energy self-sufficiency is one of the pillars of national resilience. Projects focusing on the use of renewable resources within both military and civilian infrastructure reduce dependence on fossil fuel imports, thus lowering economic vulnerability to international market fluctuations and geopolitical pressures (IEA, 2023). Intelligent energy management systems ensure efficient resource use even in crisis scenarios (European Energy Agency, 2024).

Infrastructure resilience is based on the modernization of transport networks, storage capacities, and strategic logistics hubs. These components enable rapid mobilization of armed forces while also supporting the civilian sector during emergencies such as natural disasters, cyberattacks, or energy outages (Boin et al., 2016; Ministry of Transport of the Czech Republic, 2024). Strategic infrastructure planning therefore links military preparedness with the principles of sustainable development (UNDRR, 2022).

Environmental resilience includes the protection of natural resources, emission reduction, and the promotion of circular material flows (European Environment Agency, 2023). Projects focused on sustainable management of land, water, and energy resources contribute to environmental stability and economic efficiency by reducing costs associated with the restoration of ecological damage (Meadows et al., 2019).

Economic resilience requires the diversification of strategic investments and the creation of reserves of critical commodities to ensure continuity of state functioning during external shocks (World Economic Forum, 2023). At the same time, it supports long-term economic growth through investments in innovation, modern technologies, and efficient logistics infrastructure (OECD, 2024).

Healthcare resilience represents an integral component of overall resilience. The modernization of military and civilian healthcare facilities, development of mobile units, and provision of access to critical medicines increase the state's ability to respond to pandemics, mass accidents, and crisis situations (WHO, 2023; European Centre for Disease Prevention and Control, 2022).

Institutionalization and coordination are prerequisites for effective implementation of strategic projects. The establishment of inter-ministerial coordination structures, strategic planning with a 10–15-year horizon, and monitoring mechanisms evaluating project impacts in terms of economic, environmental, and security efficiency ensure policy continuity regardless of shifts in governmental priorities (OECD, 2021). Successful implementation of these measures requires inter-ministerial coordination, cooperation with academic and research institutions, engagement of the private sector, and integration of international NATO and European Union standards (European Commission, 2022; NATO, 2023). This interconnectedness maximizes the long-term benefits of defense expenditures and reinforces the legitimacy of strategic security governance (Bailes & Frommelt, 2004). Sophisticated public finance management requires the application of tools for prioritization and resource allocation with respect to long-term returns and multiplier effects of individual projects (European Fiscal Board, 2023).

The phenomenon of positive externalities allows measures that strengthen military readiness to simultaneously promote socio-economic and environmental stability (Bačová, 2024). The conflict between short-term efficiency and long-term sustainability can thus be partially mitigated, as synergistic effects enhance the legitimacy and acceptability of strategic decisions (Kleibrink et al., 2022). Integrating economic and environmental resilience into state defense policy therefore represents a key factor in the ability to confront not only traditional military threats but also new risks associated with climate change, energy transformation, and infrastructural vulnerability (Linkov & Trump, 2019; European Defence Agency, 2023). This approach maximizes long-term benefits for the economy, society, and the environment, ensuring strategic stability of the Czech Republic in a volatile global security environment**.**

4. Conclusion

Rising defense expenditures in the Czech Republic represent a complex challenge that transcends traditional military priorities and encompasses economic, environmental, and social dimensions. It can be stated that an increase in budgetary resources alone is insufficient to ensure long-term security; it is essential to strategically combine projects with measures that enhance state resilience, environmental sustainability, and socio-economic stability (Báčová, 2024). From the perspective of economic theory, strategic projects that generate mutually positive externalities simultaneously reduce the state's vulnerability to crises, minimize negative impacts on the economy, and strengthen the legitimacy of political decisions. The phenomenon of mutually positive externalities emerges as a key instrument for aligning military, economic, and environmental objectives.Economic and environmental resilience is essential for adapting to new threats, including climate crises, energy outages, and infrastructural failures. Projects that strengthen the resilience of critical systems and diversify strategic reserves enable the state to maintain functionality even in crisis scenarios. Healthcare capacity plays a role not only in military operations but also in addressing pandemics and civil crises, thereby supporting the socio-economic stability of regions (Černý, 2022).

For effective implementation, it is necessary to establish institutionalized mechanisms of planning and coordination, strategic planning, and monitoring systems. The conflict between short-term efficiency and long-term sustainability represents a significant political challenge that can be partially mitigated through projects with multiple benefits. The integration of sustainability principles, inspired by the Copenhagen and Paris Schools of Security, enables the formulation of a comprehensive framework linking military readiness with long-term state resilience. In conclusion, Czech defense policy must find a balance between fulfilling alliance commitments and maintaining long-term economic and environmental stability. Strategic, sustainable, and integrated projects represent key tools for maximizing the benefits of defense spending and strengthening the legitimacy of political decisions.

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