

Unveiling the means and motivations of defence modernisation in mid-power eastern Europe: is this modernisation enough? – a comparative analysis of Czech Republic and Poland

Розкриття засобів і мотивів модернізації оборони в Східній Європі середньої могутності: чи достатньо цієї модернізації? – порівняльний аналіз Чехії та Польщі

Shrabana Kundu

Degree- M.A. International Relations, e-mail: dshrabana00@gmail.com, ORCID: 0009-0007-5589-5568

Amity University, Uttar Pradesh, India

Шрабана Кунду

Degree- M.A. International Relations, e-mail: dshrabana00@gmail.com, ORCID: 0009-0007-5589-5568

Університет Аміті, Уттар-Прадеш, Індія

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Purpose: to conduct an in-depth analysis of National security documents like Poland's National Defence Strategy and the Czech Republic's White Paper of Defence and a definition concrete plans the bridges the gap by analysing the motivations and approaches adopted by Czechia and Poland for military modernisation.

Method: quantitative analysis, comparative analysis, thematic analysis.

Paper type: theoretical.

Мета роботи: провести поглиблений аналіз документів про національну безпеку, таких як Стратегія національної оборони Польщі та Біла книга оборони Чеської Республіки, а також визначити конкретні плани з подолання розриву шляхом аналізу мотивацій і підходів, прийнятих Чехією та Польщею для військової модернізації.

Метод: кількісний аналіз, порівняльний аналіз і тематичний аналіз.

Тип статті: теоретичний.

Key words: increased defence activity, Czech Republic, Poland, Defence modernisation, emerging security threats.

Ключові слова: посилення оборонної активності, Чеська Республіка, Польща, модернізація оборони, виникаючі загрози безпеці.

Introduction

In an era characterised by perpetual change and evolving threats, adaptability emerges as a cornerstone of resilience, not only in technological advancements and societal norms but also in the realm of national security. Military modernisation stands at the forefront of nations' efforts to navigate this ever-shifting landscape, serving as an ongoing process aimed at enhancing defence capabilities to address emerging challenges and uphold security in a dynamic global environment.

However, military modernisation transcends the mere acquisition of cutting-edge weaponry; it represents a strategic investment that encompasses a comprehensive overhaul of equipment, tactics, and military structures. This strategic overhaul is not without its challenges. Countries have to navigate complex issues such as resource constraints, bureaucratic hurdles, integration challenges, and adapting military culture. A modernised military not only deters aggression through superior equipment but also stands ready to respond swiftly and decisively to evolving security challenges. This adaptability is especially crucial in today's world, where geopolitical tensions and the rise of regional powers necessitate a reassessment of national defence strategies.

In failing to embrace modernisation, nations risk lagging, leaving themselves vulnerable to unforeseen threats and compromising their security and international standing in the process. As such, this introductory chapter sets the stage for an in-depth exploration of the multifaceted dimensions of military modernisation, highlighting its significance in navigating the complexities of the modern security landscape and safeguarding the interests of nations in an ever-changing world.

Literature review. Military modernisation, the upgrading of military capabilities, is crucial for Eastern European nations like Czechia and Poland. This research explores their motivations and approaches to modernisation amidst a complex security landscape. Eastern European militaries, like those of Czechia and Poland, were historically shaped by Soviet dominance. Before the collapse of the USSR, their militaries were standardised with Soviet equipment and doctrine, focused on large-scale land warfare within the Warsaw Pact [Mahoney, William M. (2011) & Biskupski, M.B.B. (2018)]

This legacy presents challenges for modernisation, as these countries transition to meet current threats. Alliance memberships, however, play a crucial role. Their shift towards NATO is a prime example.

While existing studies [Skřivan, Jr (2010) & Adamczyk, N (2022)] analyse Czech and Polish strategies, a gap exists. National security documents like Poland's National Defence Strategy and Czech Republic's White Paper of Defence acknowledge present-day challenges, but lack in-depth analysis and concrete plans for addressing them, particularly when compared to the evolving security landscape. This research aims to bridge this gap by analysing the motivations and approaches adopted by Czechia and Poland for military modernisation. It will critically examine their national security documents alongside scholarly works to assess their effectiveness in addressing contemporary security threats.

Data and methods

This study examines the motivations and approaches employed by the Czech Republic and Poland in modernising their militaries within a rapidly evolving European security landscape. The research utilises a mixed methods approach, analysing data from two primary sources to gain a comprehensive understanding. National security documents, such as the Czech White Paper on Defence and the Polish National Defence Strategy, provide quantitative data on defence spending trends, military personnel numbers, and equipment procurement plans. Scholarly analysis from academic journals and reports offers qualitative data, providing historical context for modernisation efforts, exploring underlying motivations, and capturing expert evaluations of current strategies.

The analysis involves a two-pronged approach. First, a quantitative analysis has been conducted using data from SIPRI combined with national defence strategies. This allows for a comparative analysis of Czechia and Poland's modernisation efforts regarding defence spending trends, military personnel levels, equipment procurement plans, and potential disparities in approaches. Second, a thematic analysis of existing scholarly work has been undertaken. This analysis uncovers recurring arguments for modernisation, motivations, and expert insights on current strategy effectiveness.

By integrating quantitative and qualitative data, the research aims to provide a comprehensive understanding of military modernisation in both countries. Quantitative data establishes baselines for comparison, while qualitative data offers context, motivations, and expert perspectives. This combined approach will create a richer picture of military modernisation efforts in Czechia and Poland. Data triangulation will be employed by utilising multiple data sources to ensure rigour and credibility. Additionally, a detailed description of the research methods, data sources, and analysis techniques will be provided for replication and fostering trust in the research process.

This mixed methods approach, leveraging existing qualitative analysis alongside rigorous quantitative analysis, aims to offer a comprehensive understanding of military modernisation strategies in Czechia and Poland.

Results

Country study – Czech Republic

To truly understand why and what shapes a country's defence policy, their military ambitions and the development of their military, it is crucial to understand their history and the journey of the country. Czech Republic (Cesko Republika) is a landlocked country located in the European heartland. It is important to note that the country has no access to the seacoast. Although Czechoslovakia (before the split) had a small riverine force on the Danube, this was disbanded in 1959. Throughout history, the Czech lands (now the Czech Republic) have occupied a strategically significant position in Central Europe. This centrality, however, has often placed them at the crossroads of major power struggles, leaving them vulnerable to invasion and domination by larger empires.

A Historical Trajectory: The Evolution of Czech Weaponry

World War I significantly impacted Czechoslovakia's weapon systems, exposing shortcomings and driving innovations. Czechoslovakia inherited a strong arms industry after WWI, but ownership changes and a mismatch with their needs caused problems. In the 1930s, facing threats from Germany, the government focused on supporting domestic arms production. Škoda Works catered primarily to the Czechoslovak army, producing diverse weaponry including anti-tank guns, anti-aircraft guns, fortress guns, and mortars¹. These weapons, valuable for export², faced obstacles due to the Munich Agreement of 1938 and subsequent events.

During the Second World War, Czechoslovakia was under German occupation and was forced to manufacture for the German army³. After World War II, Czechoslovakia's well-established arms industry, including Škoda Works and Česká zbrojovka (CZ), resumed production, focusing on a wide range of weaponry. From 1968 to 1989, under Soviet rule, Czechoslovakia thrived as a major arms supplier for the Eastern Bloc, producing a wide range of weaponry and was also a member of the Warsaw Pact. They remained a significant manufacturer until the Velvet Revolution led to the country's dissolution. The Czech Republic democratised after the Velvet Revolution in 1989 leading to the depoliticization of the military and a shift in defence policy. After the Velvet Revolution, the Czech Republic downsized its military, focused on defence, and joined peacekeeping efforts. However, cuts in research and development hampered modernisation.

Integrating with the West: The Czech Republic's Path to NATO Membership and Beyond

The Czech Republic actively pursued NATO membership from 1993 to 1999. Despite challenges, they showed commitment by complying with NATO standards, collaborating with Western partners, and increasing military spending. This focus on interoperability and modernisation culminated in their successful NATO accession in 1999. Czech Republic faced criticism from NATO for not meeting military force goals. In response, they reformed their military to address new threats like terrorism and downsized to comply with NATO standards. This reform involved updating key military planning documents like Security Strategies (2001 and 2003) and Military Strategies (2002 and 2004).

In 2004, the Czech Republic became a member of the EU as a result of its incorporation into Western organisations. The armed forces became entirely volunteer by 2005, and by 2006, they were able to conduct their first operations. Modernising initiatives, involvement in overseas

¹ In the interwar period, the Czechoslovak army was Škoda Works' most important customer and its demands largely influenced both the arms production program and the general economic strategy of the Pilsen-based company. Škoda Works produced a diverse array of weaponry, including top-notch anti-tank guns like the model 37 (37 mm caliber), anti-aircraft guns such as the model 22 (8.35 cm caliber), fortress guns like the model 36 (4 cm caliber), and mortars like the model 36/B5 (8 cm caliber). These weapons served various purposes, with fortress guns like the model 36 specifically designed for fortifying Czechoslovak borders.

² The weapons produced by Czechoslovakia could have been attractive military acquisitions for countries like Argentina, France, and Belgium.

³ Czechoslovak companies continued to produce small arms like the CZ 27 pistol and tanks like the Panzer 38(t), which was based on the Czech LT vz. 38, for the German army.

activities, and taking on more responsibility in international operations were all part of the reform process⁴. Budget cuts brought about by fiscal policies and governmental agendas presented difficulties even with the accomplishment of defence reform.

Adapting to a New Era: Czechia’s Evolving Defence Strategy in the 21st Century

During the ongoing transformation period, Czech defence policy is adapting to new strategic thinking in NATO, focusing on factors like stability in failing states, WMD proliferation, cyber defence, and energy security. The Czech Republic's 2012 Defence Strategy outlines its approach to security in a changing world. It highlights NATO and EU membership, but recognises Europe's evolving role. The strategy calls for efficient spending, modern armed forces, and citizen involvement in defence. It emphasises adapting to new threats and ensuring the military can defend the country and cooperate with allies.

The latest Defence strategy of Czechia was issued by the Ministry of Defence, CZR in 2023. The Czech Republic’s updated defence strategy (2023) prioritises preparing for a potential high-intensity war due to Russia’s aggression. This includes building a stronger military, boosting readiness, and strengthening national resilience. To achieve this, they’re committed to spending at least 2% of GDP on defence, with the possibility of going even higher if needed.

Modernising for the Future: Analysing Czechia’s Defence Budget, Import Strategies and the CAfdc 2030 Roadmap

To understand Czechia’s defence modernisation journey, we must scrutinise its defence budget. With the Warsaw Pact gone, Czechia needed to re-evaluate its military needs and capabilities. 1999 could be seen as a starting point for a period of introspection and planning for modernisation efforts. 1999 was also a crucial year for Czechia since they officially joined NATO.

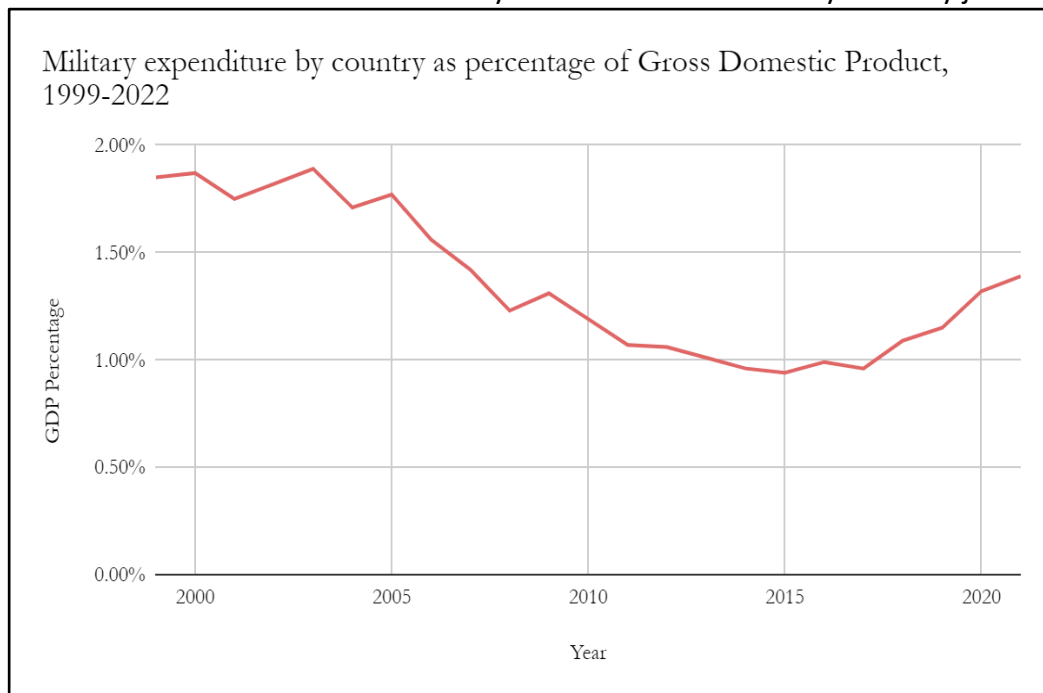


Figure 1 – Military expenditure by the Czech Republic as a percentage of Gross Domestic Product, 1999-2022 (Data: SIPRI MILEX)

⁴ The most important (and the most controversial) modernisation projects were accomplished—e.g., battle tanks, supersonic and subsonic aircraft systems, transport aircraft, and infrastructure. The armed forces successfully participated in foreign operations in the Balkans, Afghanistan, and Iraq. Success in defence reform was ineluctably connected to the Czech Republic’s assuming greater responsibility and a more important role in multinational operations.

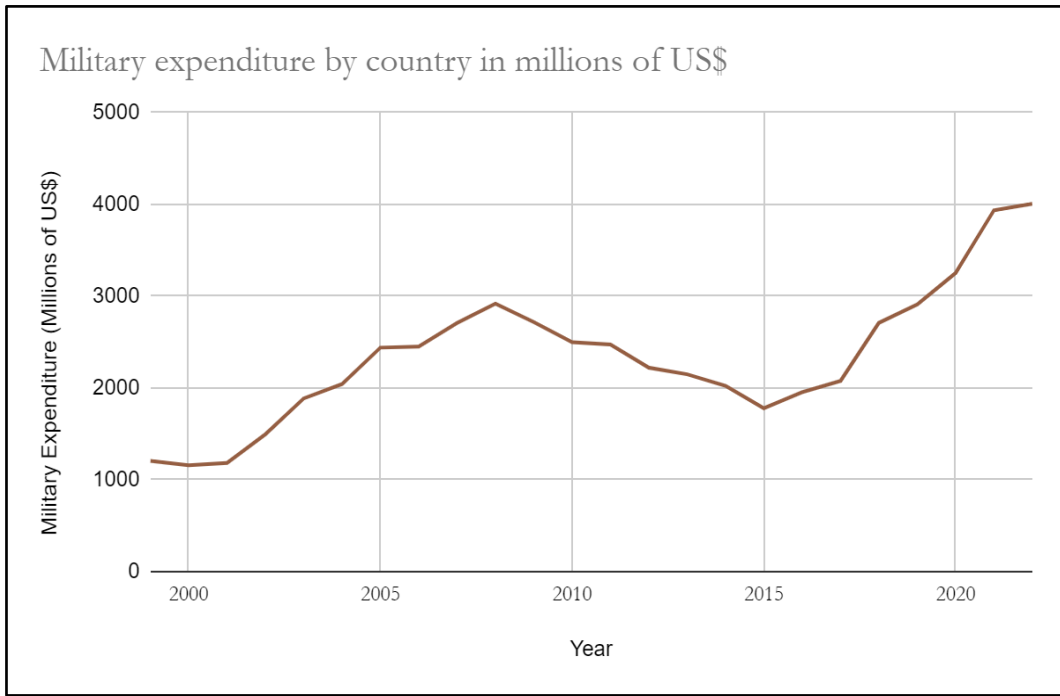


Figure 2 – Military expenditure by country, in millions of US\$ at current prices and exchange rates, 1999-2022 (Data: SIPRI MILEX)

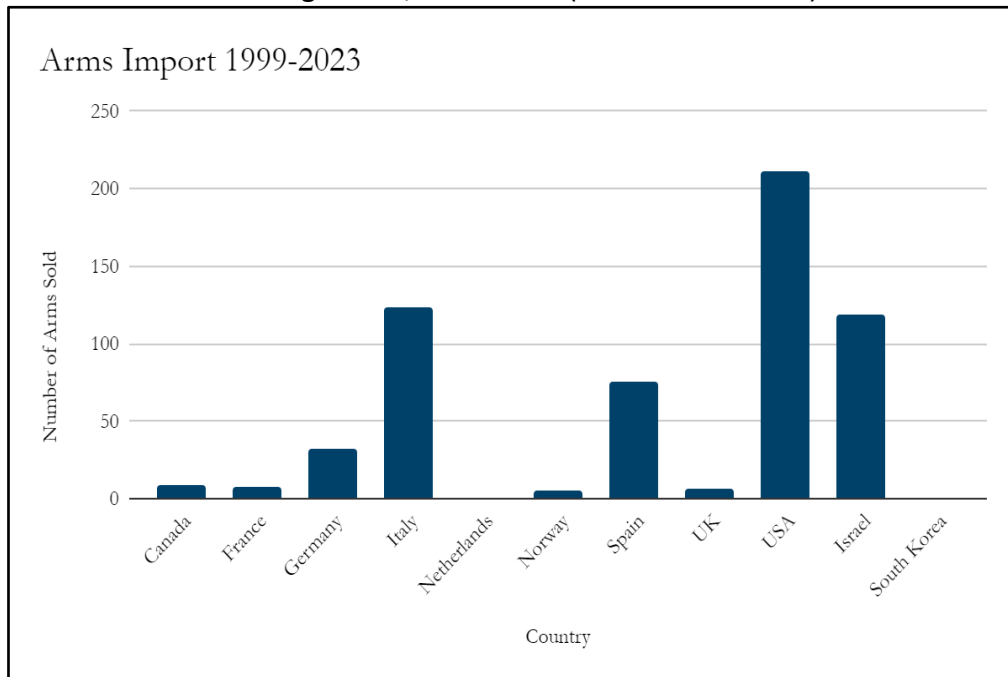


Figure 3 – Arms Imports by Czech Republic during 1999-2023 (Data: SIPRI Arms Transfer Database)

From 1999 to 2023, Czechia has focused on importing Sensors and Aircraft. Fig 4 depicts the same. (Data: SIPRI Arms Transfer Database)

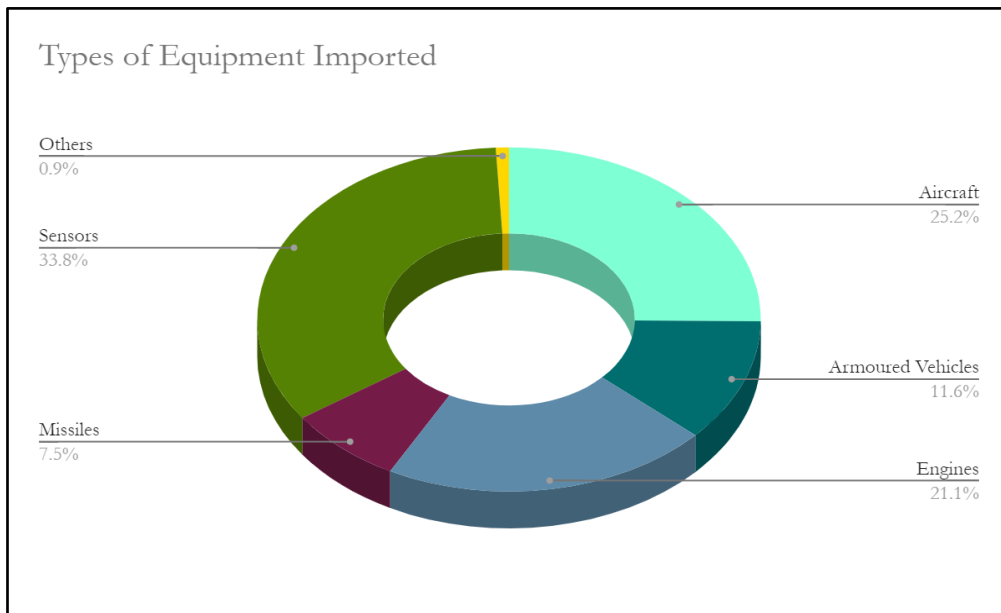


Figure 4 – Types of Equipment imported (1999-2023)
(Data: SIPRI Arms Transfer Database)

The Czech Republic is undergoing significant upgrades to its defence capabilities, particularly focusing on modernising its Army and Air Force. The country's defence budget is projected to reach \$7.7 billion by 2028, with a strong emphasis on replacing outdated military platforms and preparing for high-intensity conflicts. Key acquisitions include replacing leased J-39 Gripens with participation in the F-35 program, bringing in advanced capabilities like electronic warfare and long-range strike capabilities.

The recent purchase of 24 Lockheed Martin F-35 Lightning II jets further strengthens Czech defence capabilities and reinforces NATO's deterrence efforts, with the first batch set for delivery in 2031. Additionally, the acquisition of two Embraer C-390 Millennium aircraft enhances military transport capabilities, supporting various missions such as cargo and troop transport, medical evacuation, and humanitarian operations.

Czechia is undergoing a significant military modernisation effort, driven by the Czech Armed Forces Development Concept 2030 (CAfdc 2030). The Czech Republic is modernising its military to be more agile and deployable with modern weapons. This tackles new threats, improves cooperation with NATO allies, and allows them to fulfill alliance duties. The plan involves restructuring forces, increasing active troops, and creating reserves. They're also investing in drones and air defence systems.

Modernising the military, however, is not without its hurdles. Aligning defence procurement processes with both EU guidelines and NATO compatibility requirements can be complex. The need to replace equipment donated to Ukraine after Russia's invasion has added urgency to the modernisation drive, highlighting the potential challenges of dependence on external suppliers.

Despite these challenges, opportunities exist. The CAfdc 2030 provides a focused strategic direction, and increased defence spending commitments can further accelerate modernisation efforts. Enhanced cooperation at the multinational level, like the collaboration with Denmark and the Netherlands, allows for resource sharing and knowledge transfer. This collaborative approach is crucial for navigating the complexities of modern warfare and defence paradigms in an ever-evolving security landscape.

Czechia's modernisation Journey: A Story of Adaptation, Alliance and the future of European Security

Czechia's history and NATO membership since 1999 sparked a major military modernisation effort to boost national security and fulfill alliance duties. Looking ahead, Czechia's defence modernisation is likely to continue at its current pace, fuelled by ongoing security challenges and the imperative to adapt to emerging threats. However, several anticipated challenges may shape the trajectory of future reforms. These include navigating complexities in defence procurement processes, ensuring the long-term sustainability of defence spending levels, and addressing dependencies on external suppliers, particularly in the context of geopolitical tensions.

Czechia's defence modernisation efforts contribute to broader conversations about European security and the evolving role of mid-power states in the global defence landscape. As a NATO member and EU participant, Czechia's experiences offer valuable insights into the challenges and opportunities faced by countries seeking to enhance their defence capabilities while navigating complex geopolitical dynamics. Moreover, Czechia's case study sheds light on broader trends in military development, highlighting the importance of interoperability, strategic partnerships and adaptive planning in an increasingly uncertain security environment.

Country study – Poland

Poland has a large historical significance in Europe due to its historical origins as well as its large territory. Although Poland currently holds the sixth position in terms of size among European countries, it was previously the largest country on the continent, spanning over a million square kilometres. For a considerable period, Poland embodied the spirit of independence and a strong sense of liberty, characteristic of the early Slavic peoples. When tracing back its history to its distant origins, Poland emerges as one of the oldest nations in Europe⁵. To the west, Poland shares its border with Germany. In the east, it shares extensive borders with Ukraine and Belarus, mostly following the Curzon Line, which was enforced on Poland by the Soviet Union during World War II and subsequently endorsed by Western nations. The northern border is defined by the Baltic Sea, including the peculiar Russian territory known as the Kaliningrad Oblast. Poland's borders with Ukraine and Russia in 2024 present significant security risks due to the ongoing conflict in Ukraine. This conflict increases the potential for spillover effects, including stray military activity, a massive influx of refugees, and heightened border tensions. Additionally, Russia's actions raise concerns about its intentions towards neighbouring countries like Poland, with the possibility of military pressure, cyberattacks, and disinformation campaigns posing serious threats. Geopolitical uncertainty further complicates the situation, making it challenging for Poland to anticipate and prepare for potential threats effectively. As a result, Poland faces a precarious security situation, necessitating vigilant monitoring, and robust defence capabilities to mitigate risks and safeguard its interests.

Understanding Poland's defence strategy, military goals, and the growth of its armed forces necessitates a deep exploration of its intricate history and national trajectory. Throughout its history, Poland's strategic centrality in Central Europe has frequently transformed it into a battleground for major power struggles, leaving it vulnerable to invasion and domination by larger neighbouring empires. Despite facing numerous challenges, Poland's historical experiences have undoubtedly shaped its defence policies and military development, emphasising the importance of understanding its past in comprehending its present-day security outlook.

A Phoenix from Ashes: The Enduring Strength of Polish Defence

Poland's historical trajectory can be characterised by a cycle of rise, expansion, struggle, and eventual partition. In the early days of the Piast Dynasty, around the 10th and 11th centuries,

⁵ Despite facing invasions by barbarians, Scandinavians, Normans, Danes, and Varangians, Poland remained largely unaffected. Furthermore, Poland, alongside Hungary and Venice, played a pivotal role in safeguarding other nations from the invasion led by Tshengis-Khan and his armies. However, rather than showing appreciation for their valour, other nations have instead absorbed Poland, Hungary, and Venice into their domains.

weaponry was a far cry from what we see today. Battles to establish Poland's western borders with the Holy Roman Empire were brutal affairs where soldiers relied on a mix of close-combat tools, ranged options, and sturdy armour for protection. Imagine a clash where swords, axes, and spears were the primary weapons for hand-to-hand fighting.

The art of war in Poland underwent a fascinating transformation between the 15th and 17th centuries. Poland's military rose from clashes between old and new. Gunpowder challenged traditional weapons, while political struggles forged mighty Winged Hussars – elite cavalry dominating battlefields. These elite Polish-Lithuanian heavy cavalries were clad in imposing plate armour, a symbol of both wealth and protection. Their primary weapon? A devastatingly long lance, used for thunderous charges that could shatter enemy formations. While the Winged Hussars became a symbol of Polish valour, another revolution was brewing on the battlefield: the rise of firearms.

By the late 18th century, Poland's once-powerful military lagged. Infantry still relied on flintlock muskets, slow and inaccurate compared to what was coming. This outdated arsenal mirrored a weakened Poland. Meanwhile, ambitious neighbours – Prussia, Austria, and Russia – saw an opportunity. Wary of a strong Poland, they carved up the nation in a series of partitions (1772-1795). Despite being erased from the map; the Polish spirit wouldn't die⁶. When the empires that partitioned Poland collapsed in World War I, Poland finally regained its independence in 1918, after 123 years of being divided. However, this resurgence was met with challenges. The newly formed Second Polish Republic had to grapple with defining its borders, leading to conflicts like the Polish-Soviet War (1919-1921), fought with WWI-era weaponry.

Despite facing political and economic turmoil after WWI, Poland, under Józef Piłsudski, prioritised national defence by modernising its military with tanks and aircraft, utilising German reparation funds to establish domestic arms production facilities⁷. In 1939, Nazi Germany and the Soviet Union invaded Poland, overwhelming its modernised military. World War II turned Poland into a major Eastern Front battleground, witnessing the Holocaust and widespread devastation. Post-war, Poland fell under Soviet influence, becoming a communist state – the Polish People's Republic. Dissatisfaction grew, leading to the rise of the Solidarity movement in the 1980s.⁸

Poland returned to democracy in 1989 with its first free elections. After shaking off communist rule in 1989, Poland overhauled its defence strategy. Since then, Poland has enjoyed economic progress, joined NATO (1999) and the EU (2004), and emerged as a prominent actor in European politics. To work together with partners with ease, the military updated with Western weapons and strategies.

Since gaining strategic autonomy in 1989, Poland has been progressively developing its national security system, which had previously been limited by its subordination to the interests of the Soviet Union under the Warsaw Pact⁹. The evolution of Poland's national security system can be delineated into distinct phases, each marked by specific objectives and challenges.

After gaining independence (1990s), Poland focused on building its own defence strategy. In the 2000s, they aligned with NATO and the EU. Now (2010s onwards), they're strengthening their own military while staying active in NATO and the EU.

⁶ Throughout the 19th century, uprisings erupted – Kościuszko (1794), November (1830-1831), and January (1863). However, these rebellions were doomed. Despite the lack of modern arms, the uprisings showcased the enduring spirit of the Polish people.

⁷ The German arsenal in Danzig provided war reparations to Poland in 1927, when it established the Państwowe Wytwórnice Uzbrojenia (PWU, State Armament Factories) and placed rifle production machinery in a new facility in Radom called Państwowa Wytwórnia Broni.

⁸ Solidarity, the Polish trade union that emerged as the first autonomous labour union in a Soviet Bloc nation in the early 1980s. Solidarity, under Lech Wałęsa's leadership, peacefully overthrew the communist government.

⁹ The collapse of the Soviet Union, along with the subsequent political changes in Eastern Europe during the "Autumn of Nations" in 1989, significantly altered Poland's security landscape, prompting a shift towards greater independence and strategic autonomy.

The Evolution of Polish National Security Strategy: From Alliances to Comprehensive Security

Poland’s 2002 National Security Strategy was a game-changer. It moved them from defence-only to active engagement with NATO and the EU, focusing on collective defence and global issues. This strategy set the stage for Poland’s more proactive role in international security.

By 2007, Poland had solidified its gains after the Cold War. Their national security strategy, building on NATO and EU membership, prioritised national security, economic development, and active global engagement. It acknowledged vulnerabilities like energy dependence and social unrest, underlining the importance of strong alliances, diversifying energy sources, and internal stability.

Poland’s 2014 National Security Strategy (NSS) went beyond military might. It saw security as a broad issue involving social wellbeing, economic strength, and societal resilience. While staying active in NATO and the EU, Poland also prioritised regional cooperation and global partnerships. This 2014 NSS showed a shift towards a more well-rounded and proactive approach to national security.

Poland’s 2020 National Security Strategy (NSS) focuses on a multi-pronged approach to security. It includes better management, building resilience, modernising the military, and improving cybersecurity. Recognising various threats, the NSS emphasises strong alliances (NATO, EU, US) and domestic investment in military and technology. To address these threats, Poland plans a significant military build-up, increasing defence spending reaching 2.5% of GDP by 2024 and improving military capabilities.

Analysing Poland’s Defence Budget and Spending, Import Strategies

To have a better understanding of how Poland is modernising their military and defence we can take a look at the data below.

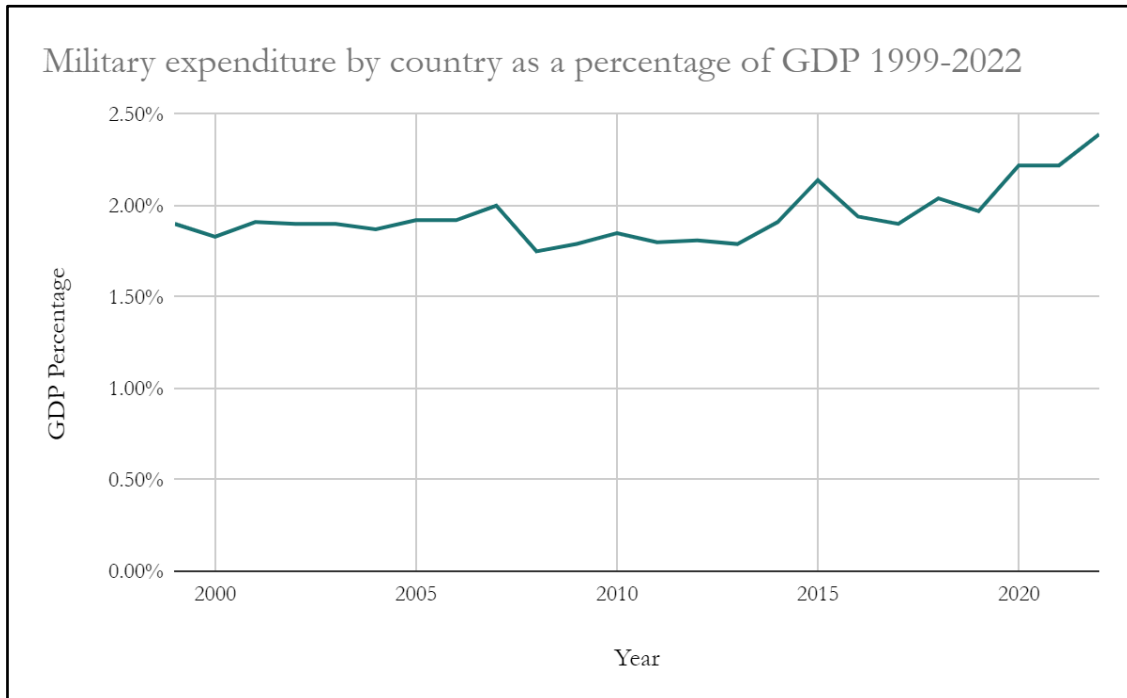


Figure 5 – Military expenditure by Poland as a percentage of Gross Domestic Product, 1999-2022 (Data: SIPRI MILEX)

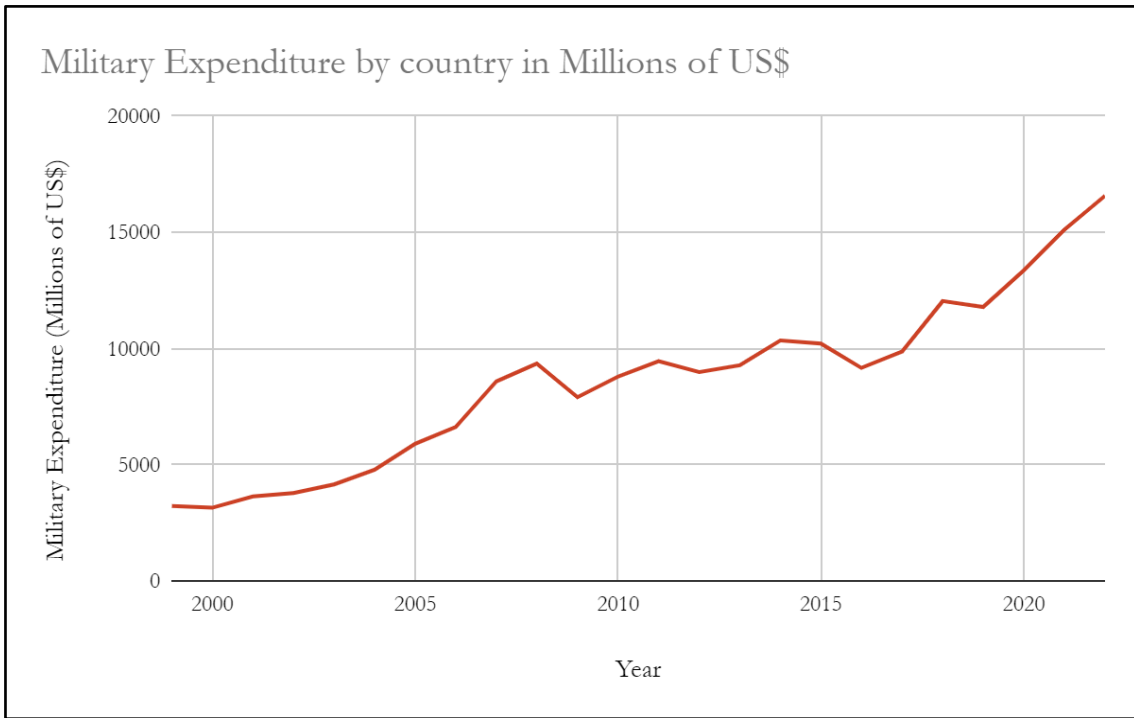


Figure 6 – Military expenditure by Poland, in millions of US\$ at current prices and exchange rates, 1999-2022 (Data: SIPRI MILEX)

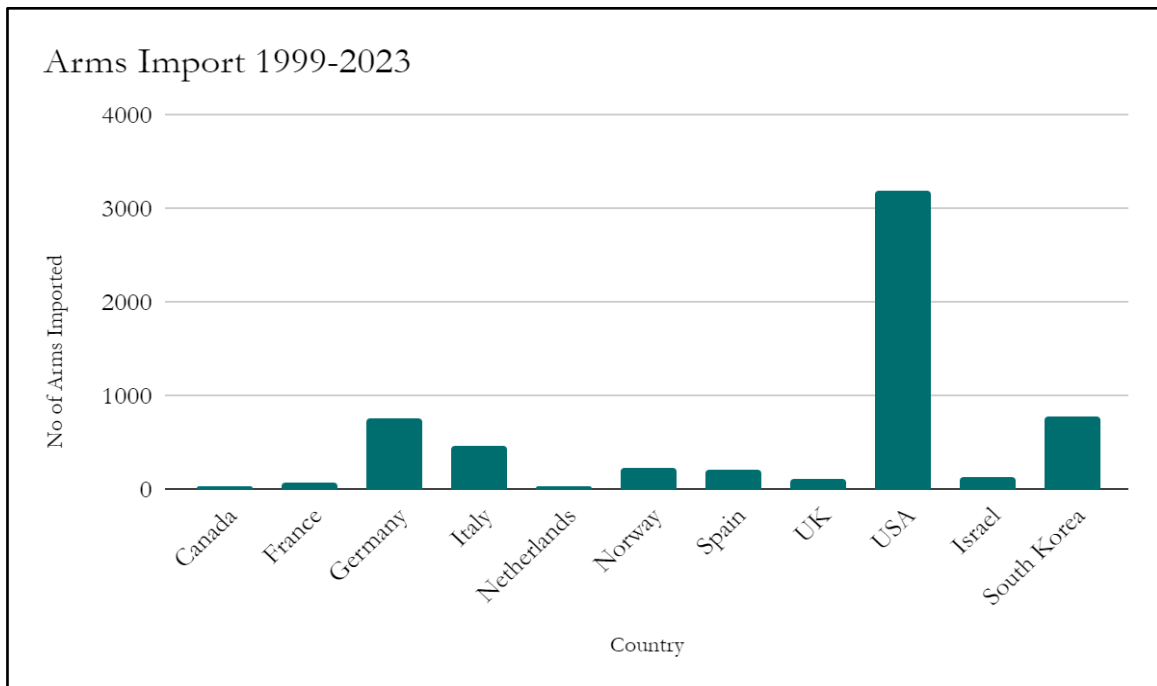


Figure 7 – Arms Imports by Poland during 1999-2023 (Data: SIPRI Arms Transfer Database)

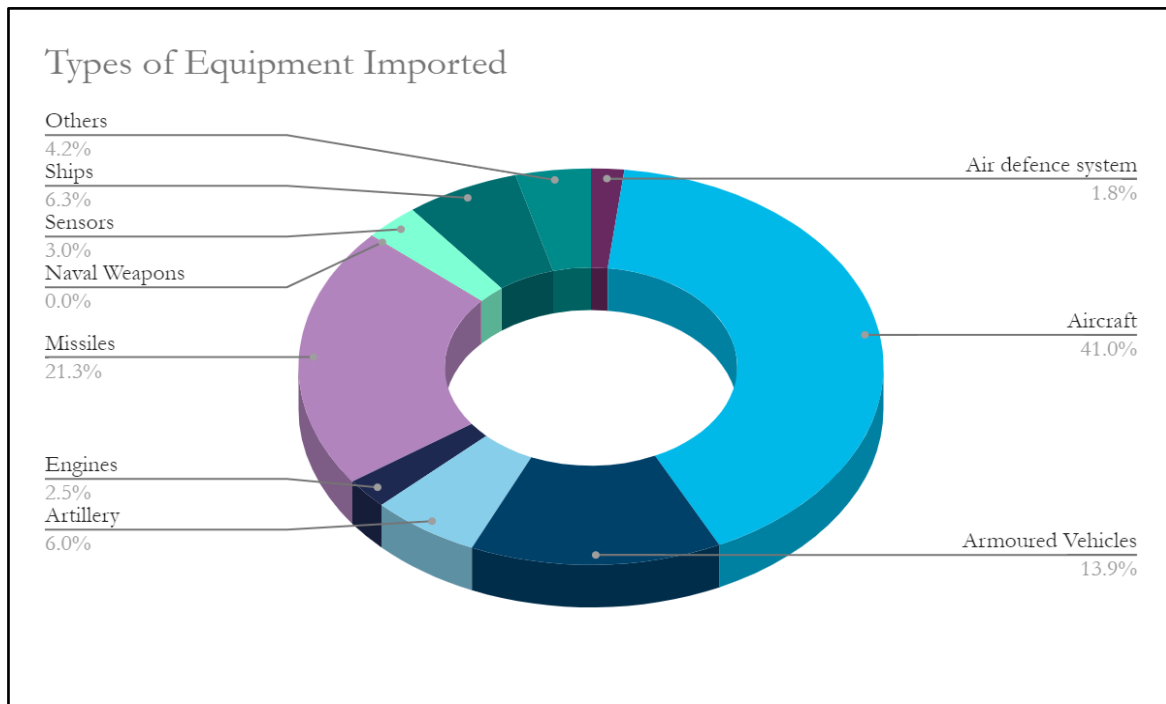


Figure 8 – Types of Equipment imported (1999-2023)
(Data: SIPRI Arms Transfer Database)

In the wake of Russia’s aggression against Ukraine in February 2022, Poland swiftly intensified its rearmament efforts, driven by a sober assessment of the strategic risks posed by the conflict. Even before the outbreak of hostilities, Poland had been steadily increasing its defence spending, allocating 2.4% of its GDP to defence by 2022, ranking third in NATO.

Poland isn’t done boosting its defences. In 2023, they planned to spend over 4% of GDP on defence, exceeding all other NATO members. This significant budget increase, with over half going to new equipment, highlights their commitment to military modernisation.

Major acquisitions include:

- 366 Abrams tanks and 96 Apache helicopters from the United States
- 980 K2 tanks and 648 self-propelled howitzers from South Korea
- Hundreds of HIMARS rocket launchers and Patriot air defence systems
- Secured deals for 22 air defence batteries and three frigates from the United Kingdom
- 48 South Korean FA-50 combat aircraft
- 32 F-35 aircraft from the United States, supplementing its existing fleet of F-16s.

Poland’s 2032 Vision: Building a Modern and Ready Military

As Poland aims for 2032, its armed forces are undergoing a comprehensive overhaul to address evolving security challenges. Building on the 2016 Strategic Defence Review, Poland is focused on creating a modern and formidable military, emphasising readiness across all fronts. This involves investing in cutting-edge equipment, training highly skilled personnel, and refining operational procedures to respond swiftly to any threat. Poland’s future military will have five branches working together seamlessly. They’re focusing on land and air forces, but also strengthening special ops and territorial defence. Modernisation with data-driven investments is key. They’re also reforming leadership and promoting civilian oversight. Poland sees defence as a national effort, with everyone working together. A revamped analysis unit will inform strategy and keep it adaptable. Overall, Poland aims for a strong, resilient, and ready military by 2032.

Comparative analysis

We've looked at Czech Republic and Poland's defence journeys. Now, let's compare their approaches to military modernisation in Eastern Europe's changing security environment. This analysis will shed light on the distinct paths Czechia and Poland are carving out as they modernise their militaries for Eastern Europe's evolving security threats.

Table 1 – Comparative Assessment of Defence Modernisation Efforts in the Czech Republic and Poland

Parameters	Czech Republic	Poland
Founded	1992	1989
Historical Alliance Memberships	- Warsaw Pact (dissolved 1991) - NATO (joined 1999)	- Warsaw Pact (dissolved 1991) - NATO (joined 1999)
Joined EU	2004	2004
Security Threats & Geopolitical Considerations	- Dependence on Western security architecture (NATO) - Russia's Aggression - Collective Defence Burden Sharing	- Direct border with Russia (Kaliningrad) - Historical tensions with Russia - A rise in military operations inside the Baltic Sea - Ongoing Conflict in Ukraine-Russia
Financing Defence Modernisation	-Projection of reaching \$7.7 billion by 2028 - 2% of GDP Target	- Increased domestic budget allocations - 3% in 2023 - Significant recent arms purchases (US, South Korea, UK) - potential for US military aid
Prioritised Military Capabilities	- Enhanced Army and Air Force Capabilities, Modern Weaponry - focus on cyberwarfare capabilities, interoperability with NATO allies	- Significant land force modernisation (tanks, artillery), doubling the size of the army to 300,000 troops - Air force improvements - Interoperability
Defence Industrial Development	- Limited domestic defence industry, focus on collaborating with NATO allies for procurement	- Growing domestic defence industry, aiming for greater self-sufficiency in certain equipment production
Regional Cooperation	-EU Common Security and Defence Policy (CSDP) Active participation in regional security initiatives (e.g., Three Seas Initiative)	- Strong advocate for regional military cooperation within NATO's eastern flank

Although both countries are facing similar security concerns, the Czech Republic and Poland exhibit distinct approaches to defence industry development and regional cooperation. Czechia leans heavily on collaboration with NATO allies for military procurement. This reflects a pragmatic recognition of its limited domestic defence industry capabilities. By leveraging the expertise and economies of scale offered by its allies, Czechia can access advanced weaponry and equipment efficiently. In contrast, Poland prioritises fostering a robust domestic defence industry. This strategy aims to achieve greater self-reliance in meeting its military needs. A strong domestic industry not only reduces dependence on external suppliers but also strengthens the national economy through job creation and technological innovation.

Poland's modernisation efforts significantly emphasize land force modernisation. By bolstering its army with modern tanks, artillery, and a larger troop presence, Poland aims to deter potential land-based aggression. Czechia, on the other hand, takes a more diversified approach,

prioritising advancements in its army, air force, and cyber warfare defence. This broader approach reflects a less geographically specific threat perception, acknowledging the multifaceted nature of contemporary security challenges. Both countries actively participate in regional security initiatives. However, Poland demonstrates a more assertive stance when advocating for enhanced military cooperation within NATO's eastern flank. This proactive approach might be driven by Poland's larger size and geographical position, potentially making it more vulnerable to Russian actions compared to Czechia.

But both countries also share a set of challenges. Securing sufficient funding presents a common hurdle for both Czechia and Poland. They both struggle to reach NATO's 3% GDP target. Another shared challenge lies in the pace and scope of modernisation. Modernising militaries requires balancing urgent needs with future plans. Both Czechia and Poland must address current weaknesses while investing in long-term defence capabilities. This balance is key to their success.

Technological integration with NATO allies is another critical aspect. Seamless interoperability, encompassing compatible equipment, communication systems, and joint training exercises, is essential for effective collaboration within the alliance. Both nations recognise this imperative and are actively investing in technological advancements to ensure they meet NATO standards and can effectively contribute to collective defence efforts.

Way forward

Modernisation efforts undertaken by Poland and Czechia represent a significant leap forward in fortifying their national security. However, the ever-shifting security landscape necessitates further improvements and adjustments to their defence capabilities.

A crucial area of focus lies in prioritizing cutting-edge technologies. The very nature of warfare is constantly evolving, demanding ongoing investment in artificial intelligence, unmanned systems, and advanced cyber capabilities. Beyond the battlefield, securing critical infrastructure is paramount. Given the increasing prevalence of cyber threats and hybrid warfare tactics, Poland and Czechia must place greater emphasis on protecting their lifelines. This includes energy networks, communication systems, and transportation hubs. Countering hybrid threats, which blur the lines between conventional military tactics and unconventional methods like disinformation campaigns, economic coercion, and cyber-attacks, requires a multifaceted approach. Both countries need to improve intelligence gathering, foster cross-sector collaboration between military and civilian agencies, and implement comprehensive strategies to effectively counter such tactics. Effective collective defence and crisis response hinge on strong interoperability with NATO allies and regional partners. To ensure seamless coordination and collaboration in multinational operations, Poland and Czechia must continue to invest in joint training exercises, interoperable communication systems, and standardised procedures.

While both countries have outlined plans for defence procurement, ensuring sustainable and cost-effective practices is essential to maximise the value of these investments. Building and maintaining a highly skilled and motivated workforce is another critical element. Poland and Czechia should prioritise investment in training, education, and professional development programs to equip their armed forces with the necessary expertise and capabilities to meet evolving security challenges. Finally, robust long-term strategic planning is essential to ensure that defence modernisation efforts are aligned with broader national security objectives and anticipated future threats. This may involve conducting regular defence reviews and consultation with experts to identify emerging trends and adjust priorities accordingly.

By addressing these areas and pursuing a holistic approach to defence modernisation and implementing these recommendations, Poland and Czechia can solidify their security posture, enhance their contributions to collective defence efforts, and effectively adapt to the evolving security landscape in Eastern Europe and beyond.

Conclusion

The journeys of the Czech Republic and Poland to revamp their defences offer a fascinating case study in balancing ambition with reality. Despite a shared goal of strengthening their militaries, the Czech Republic and Poland diverge in their spending plans and domestic industry focus. This modernisation effort presents both challenges and opportunities.

The most immediate hurdle is the significant increase in defence spending. The Czech Republic aims for 2% of GDP, while Poland aspires for a staggering 4%. While such ambition demonstrates security resolve, long-term sustainability is uncertain. Balancing these new costs with social programs and infrastructure will require careful prioritisation. Beyond budgets, complex procurement processes pose another challenge. The recent Ukraine conflict highlights the risks of relying on external suppliers. Diversifying procurement and nurturing domestic defence industries can mitigate these risks for a more reliable equipment flow.

Challenges exist, but modernisation offers benefits. Upgrading defences with advanced tech prepares them for future threats. A stronger military boosts their position in NATO, potentially leading to more influence and security. However, success depends not just on money but also on training troops for complex weapons and attracting skilled recruits.

In conclusion, the modernisation efforts undertaken by the Czech Republic and Poland are significant endeavors with both challenges and opportunities. Balancing budgets, navigating procurement hurdles, and fostering domestic defence industries are just some of the obstacles. Yet, the potential rewards – a more secure nation, enhanced regional standing, and a military equipped for contemporary threats – make the journey worthwhile.

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References

- Skřivan, A. (2010). On the nature and role of arms production in interwar Czechoslovakia¹. *The Journal of Slavic Military Studies*, 23(4), 630–640. <https://doi.org/10.1080/13518046.2010.525488>
- Prochazka, Josef. "The defense Policy of Czechoslovakia and the Czech Republic Since 1989: Stages, Milestones, Challenges, Priorities, and Lessons Learned". *Connections*, vol. 8, no. 2, 2009, pp. 17–34. *JSTOR*, Available from : <http://www.jstor.org/stable/26326167>. Accessed 10 Mar. 2024.
- Foreign relations: Ministry of Foreign Affairs of the Czech Republic*. Foreign Relations | Ministry of Foreign Affairs of the Czech Republic. (n.d.). Available from : https://mzv.gov.cz/jnp/en/foreign_relations/index.html
- International Trade Administration*. International Trade Administration | Trade.gov. (n.d.). Available from : <https://www.trade.gov/> Accessed 17 Mar. 2024.
- UN Comtrade United Nations*. Available from : <https://comtradeplus.un.org/> (Accessed: 24 March 2024).
- Sipri Military Expenditure Database (no date) SIPRI. Available from : <https://www.sipri.org/databases/milex> (Accessed: 27 March 2024).
- SIPRI arms transfers database (no date) SIPRI. Available from : <https://www.sipri.org/databases/armstransfers> (Accessed: 27 March 2024).

- Czech Republic Military Modernisation Bags Record Budget (no date) CzechTrade Offices. Available from : <https://www.czechtradeoffices.com/en/ca/news/czech-republic-military-modernisation-bags-record-budget#:~:text=The%20Czech%20Republic%20finalised%20the,scheduled%20for%20delivery%20in%202031>. (Accessed: 26 March 2024).
- Security policy | Ministry of foreign affairs of the Czech Republic. Available from : https://mzv.gov.cz/jnp/en/foreign_/index.html (Accessed: 27 March 2024).
- Mahoney, W. (2011). The History of the Czech Republic and Slovakia. Available from : <http://publisher.abc-clio.com/EGR6305>
- The Czech Armed Forces Development Concept 2030. Available from : <https://mocr.army.cz/assets/en/ministry-of-defence/basic-documents/cafdc.pdf> (Accessed: 27 March 2024).
- Rod, Z. (2024) *As Europe's peace unravels, Czech Republic ties its defence more ...*, <https://www.rand.org/>. Available from : <https://www.rand.org/pubs/commentary/2024/03/as-europes-peace-unravels-czech-republic-ties-its-defence.html> (Accessed: 27 March 2024).
- Ministry of Defence and Armed Forces of Czech Republic. Available from : <https://www.army.cz/en/> (Accessed: 27 March 2024).
- Władysław Sikorski. (1939). *Poland's Defences. The Slavonic and East European Review*, 17(50), 343–355. Available from : <http://www.jstor.org/stable/4203492>
- Sobolewski, G., Sikora, M. (2014). *Challenges and changes for the Polish Armed Forces in relation to Polish security policy. Security and Defence Quarterly*, 4(3), 50-70. <https://doi.org/10.5604/23008741.1152556>
- Scarlata, P. (2019). *Polish Wwii weapons part 1*, *Firearms News*. Available from : <https://www.firearmsnews.com/editorial/polish-wwii-weapons-part-1/364279> (Accessed: 30 March 2024).
- Polish defence in the perspective of 2032* – ministry of national defence – gov.pl website, Ministry of National Defence. Available from : <https://www.gov.pl/web/national-defence/polish-defence-in-the-perspective-of-2032> (Accessed: 30 March 2024).
- Jones, P. (September 28, 2023). Poland Becomes a Defense Colossus. Center for European Policy Analysis (CEPA). Available from : <https://cepa.org/article/poland-becomes-a-defense-colossus/> (Accessed: March 30, 2024).

Список використаних джерел

- Skřivan, A. (2010). On the nature and role of arms production in interwar Czechoslovakia¹. *The Journal of Slavic Military Studies*, 23(4), 630–640. <https://doi.org/10.1080/13518046.2010.525488>
- Prochazka, Josef. "The defense Policy of Czechoslovakia and the Czech Republic Since 1989: Stages, Milestones, Challenges, Priorities, and Lessons Learned". *Connections*, vol. 8, no. 2, 2009, pp. 17–34. JSTOR, Available from : <http://www.jstor.org/stable/26326167>. Accessed 10 Mar. 2024.
- Foreign relations: Ministry of Foreign Affairs of the Czech Republic*. Foreign Relations | Ministry of Foreign Affairs of the Czech Republic. (n.d.). Available from : https://mzv.gov.cz/jnp/en/foreign_relations/index.html
- International Trade Administration*. International Trade Administration | Trade.gov. (n.d.). Available from : <https://www.trade.gov/> Accessed 17 Mar. 2024.
- UN Comtrade United Nations*. Available from : <https://comtradeplus.un.org/> (Accessed: 24 March 2024).

- Sipri Military Expenditure Database (no date) SIPRI. Available from : <https://www.sipri.org/databases/milex> (Accessed: 27 March 2024).
- SIPRI arms transfers database (no date) SIPRI. Available from : <https://www.sipri.org/databases/armstransfers> (Accessed: 27 March 2024).
- Czech Republic Military Modernisation Bags Record Budget (no date) CzechTrade Offices. Available from : <https://www.czechtradeoffices.com/en/ca/news/czech-republic-military-modernisation-bags-record-budget#:~:text=The%20Czech%20Republic%20finalised%20the,scheduled%20for%20delivery%20in%202031>. (Accessed: 26 March 2024).
- Security policy | Ministry of foreign affairs of the Czech Republic. Available from : https://mzv.gov.cz/jnp/en/foreign/_index.html (Accessed: 27 March 2024).
- Mahoney, W. (2011). The History of the Czech Republic and Slovakia. Available from : <http://publisher.abc-clio.com/EGR6305>
- The Czech Armed Forces Development Concept 2030. Available from : <https://mocr.army.cz/assets/en/ministry-of-defence/basic-documents/cafdc.pdf> (Accessed: 27 March 2024).
- Rod, Z. (2024) *As Europe's peace unravels, Czech Republic ties its defence more ...*, <https://www.rand.org/>. Available from : <https://www.rand.org/pubs/commentary/2024/03/as-europes-peace-unravels-czech-republic-ties-its-defence.html> (Accessed: 27 March 2024).
- Ministry of Defence and Armed Forces of Czech Republic. Available from : <https://www.army.cz/en/> (Accessed: 27 March 2024).
- Władysław Sikorski. (1939). *Poland's Defences. The Slavonic and East European Review*, 17(50), 343–355. Available from : <http://www.jstor.org/stable/4203492>
- Sobolewski, G., Sikora, M. (2014). *Challenges and changes for the Polish Armed Forces in relation to Polish security policy. Security and Defence Quarterly*, 4(3), 50-70. <https://doi.org/10.5604/23008741.1152556>
- Scarlata, P. (2019). *Polish Wwii weapons part 1*, Firearms News. Available from : <https://www.firearmsnews.com/editorial/polish-wwii-weapons-part-1/364279> (Accessed: 30 March 2024).
- Polish defence in the perspective of 2032* – ministry of national defence – gov.pl website, Ministry of National Defence. Available from : <https://www.gov.pl/web/national-defence/polish-defence-in-the-perspective-of-2032> (Accessed: 30 March 2024).
- Jones, P. (September 28, 2023). Poland Becomes a Defense Colossus. Center for European Policy Analysis (CEPA). Available from : <https://cepa.org/article/poland-becomes-a-defense-colossus/> (Accessed: March 30, 2024)