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How Should the Czech Republic Finance Increased Defense Spending: An Economic Perspective

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Summary: The currently planned increase in defense spending is likely to be long-term. From a purely economic point of view, it is optimal in such a situation to finance increases primarily by increasing taxes. The share of financing through higher taxes increases with the expected duration of the expenditure increase. The later taxes are raised, the less efficient the financing of defense expenditures will be. The guiding principle is to try to spread the tax burden evenly over time. Due to its high inefficiency, financing increases in defense solely through increased public budget deficits—and thus rising debt—cannot be recommended.

The Czech government's plan to gradually increase defense budget expenditures by 0.2% of GDP annually over the next five years has sparked an intense public debate. The discussion revolves not only around the necessary scale and pace of the increase, but also around how to finance higher defense spending.[2] The aim of this brief study is to summarize the main economic arguments regarding financing options and to outline the most suitable option for the Czech Republic.

Insights from economic theory

The debate on increasing defense spending involves two conceptually distinct questions that are often conflated. The first question is how much and for how long defense expenditures should be increased. While the answer to these questions is crucial from the perspective of national security and defense capability, economists have only limited input to offer. The second question concerns how to finance increased spending: to what extent through higher debt via larger budget deficits, and to what extent through higher taxes.

Economics has long focused on answering the second type of questions, regardless of the specific purpose of public spending, particularly within the framework of what is known as Ramsey's theory of optimal taxation.[3] This text focuses solely on the second question—how to finance increased defense expenditures.

What options does the Czech Republic have, and what are their implications? If we temporarily set aside a third option discussed below—obtaining funds through current savings in other government expenditures—then any solution must lie somewhere between two extremes:

- The first extreme is fully financing defense expenditures by **increasing taxes** so that public debt does not rise.
- The second extreme solution is not to raise taxes at all and to finance everything by **increasing annual deficits**, and thus public debt. However, this simply postpones tax increases to the future.

1 This study represents the authors' own views and not the official position of the Economics Institute of the Czech Academy of Sciences nor of the Charles University Center for Economic Research and Graduate Education (CERGE). The authors thank Daniel Münich for valuable comments and advice. Any inaccuracies and errors are the responsibility of the authors. Marek Kapička works at and is the director of CERGE-EI, a joint workplace of Charles University and the Economics Institute of the Czech Academy of Sciences. Michal Franta works at the IDEA think tank at CERGE-EI.

2 Expert economic opinions have already been voiced in the public debate, for example in an interview with Jan Pavel, a member of the Czech Fiscal Council: https://www.rozpoctovarada.cz/ekonomickydenik-cz-rozhovor-s-j-pavlem-zvyseni-vydaju-na-obranu-uz-pristi-rok-je-podle-ekonomu-realisticke-deficit-ale-zrejme-naroste/ and in a study by the Centre for Public Finance at the Faculty of Social Sciences of Charles University: https://centrumverejnychfinanci.cz/wp-content/uploads/2025/04/Vydaje_na_obranu.pdf

3 See F. P. Ramsey (1927): "A Contribution to the Theory of Taxation", *Economic Journal*, 37(145), 47-61. A more modern version is available, for example, in Chari V. V. and P. J. Kehoe, "Optimal fiscal and monetary policy," *Handbook of Macroeconomics,* 1999, 1671-1745.

Any solution that falls between these two extremes raises the question of whether, from an economic perspective, it is more advantageous to raise taxes immediately and sufficiently to cover the costs, or to raise them gradually over time, or to raise taxes only later.

The key economic principle in this context is the effort to distribute the tax burden evenly over time—that is, to avoid frequent changes in tax rates, because taxes distort the economic environment. A well-known example is the distortion caused by reduced household consumption following an increase in VAT, or a decline in the willingness to work due to higher labor taxation. The optimal approach is to minimize the degree of economic distortion, meaning the number and magnitude of tax rate changes. This principle is known as ‚*tax smoothing*'.

To illustrate this principle, consider three approaches to changing taxation in order to finance expenditures expected to total 2 billion CZK over two years:

i. Collect an additional 2 billion CZK in taxes this year, and nothing extra next year.
ii. Collect nothing extra this year, and 2 billion CZK in additional taxes next year.
iii. Collect an additional 1 billion CZK this year and 1 billion CZK next year.

From the perspective of tax rate stability, the third approach is the most suitable, as it imposes the same tax in both years (i.e., taxes are smoothed). Approach (iii) causes less market distortion than approaches (i) and (ii). Of course, the principle of tax smoothing applies more broadly than in this simplified example. It is also relevant in the distribution of financing between higher taxes and debt (i.e., significantly increasing taxes later).

To understand what this principle implies for increased defense spending in the Czech Republic, one more important factor must be clarified: **how long the increased defense spending will be needed**. Although this is a key issue, it has not yet been widely discussed. If the increase is temporary, it is more advantageous to finance most of the additional expenditures through debt (i.e., higher deficits) and to raise taxes permanently but only moderately.[4] On the other hand, if the increase in defense spending is permanent, higher debt would be a mistake. Debt not only postpones tax increases to the future, but those increases would have to be larger to finance both current and future additional defense expenditures. Therefore, if the increase in defense spending is relatively permanent, financing through higher taxes is the most appropriate solution from a purely economic perspective.

Simulation for the Czech Republic

The amount of Czech defense spending (as a share of GDP) declined over more than two decades, from 2.3% in 1993 to below 1% around 2015 (**Graph 1**). This was followed by a significant increase, to 2.1% in 2024, with a similar figure expected for 2025.

In March 2025, the Czech government adopted a resolution[5] committing to further increase defense spending by 0.2% of GDP annually, aiming to reach 3% no later than 2030. The outlook beyond 2030 is therefore currently associated with considerable uncertainty. For this reason, the following text considers two post 2030 scenarios, shown in **Graph 1**.

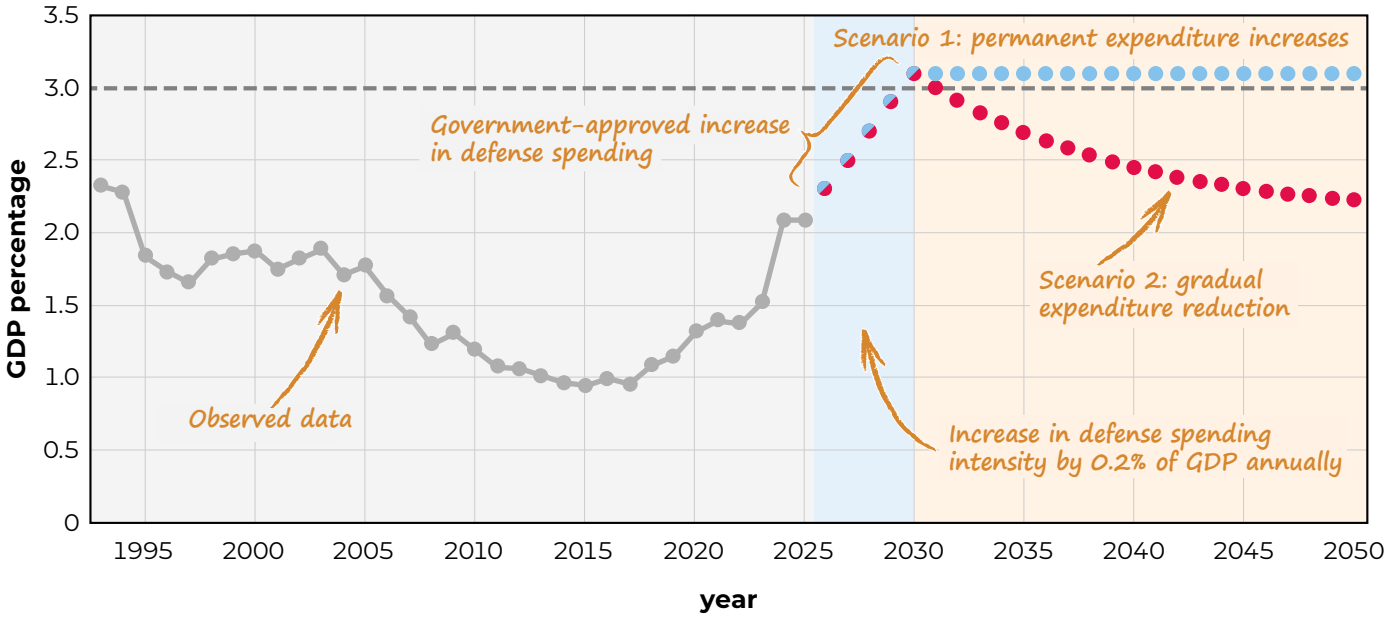
1. **Scenario of permanent expenditure increase:** In this case, defense expenditures will be permanently maintained at 3.1% of GDP after 2030.
2. **Scenario of gradual expenditure reduction:** In this case, the additional volume of defense expenditures will begin to decrease by one-tenth each year starting in 2030. By 2050, defense expenditures will amount to 2.2% of GDP.

4 With full financing through taxes, a decrease in taxes would follow when expenditures return to previous levels, which contradicts the principle of tax smoothing.

5 https://vlada.gov.cz/cz/media-centrum/aktualne/vysledky-jednani-vlady-5--brezna-2025-218615/#

Graph 1: The increase in defense spending will likely be of a long-term nature

Outlook to 2030, and two development scenarios after 2030



Source: World Development Indicators (https://data.worldbank.org/indicator/MS.MIL.XPND.GD.ZS), World Bank and the Ministry of Finance of the Czech Republic (https://mocr.mo.gov.cz/informacni-servis/zpravodajstvi/vlada-schvalila-postupne-navyseni-obrannych-vydaju-az-na-3--hdp-v-roce-2030-256692/).

Simulations based on two defense spending development paths scenarios show what share of the increased defense expenditures should optimally be financed through higher taxes and what share through increased state budget deficits, and thus public debt.[6]

Graph 2 shows the optimal trajectory for financing additional defense expenditures. Specifically, it illustrates the portion of these expenditures that should be financed through higher taxes. It also shows the amount of additional defense spending in the respective scenario: 1) permanent increase (left panel) and 2) gradual expenditure reduction (right panel).

In line with the principle of *tax smoothing*, the optimal financing in both scenarios is through a constant tax surcharge (as a share of GDP). This surcharge is approximately three times higher in scenario 1, which assumes a permanent increase in defense spending, than in scenario 2, where the increase is temporary.[7]

In both scenarios, optimal tax revenues *exceed* additional defense expenditures in the near term. In the first scenario of a permanent expenditure increase, this holds true until 2029; in the second scenario of gradual expenditure reduction, it applies only in the first year, 2026. This means that, in the coming years, it is actually optimal to partially "pre-finance" the additional defense spending through taxes, because the increased expenditures will be higher in each subsequent year until 2030. In practice, such "pre-financing" could be implemented through the creation of a *defense fund*,[8] in which the surplus tax revenues would be saved in the initial years.

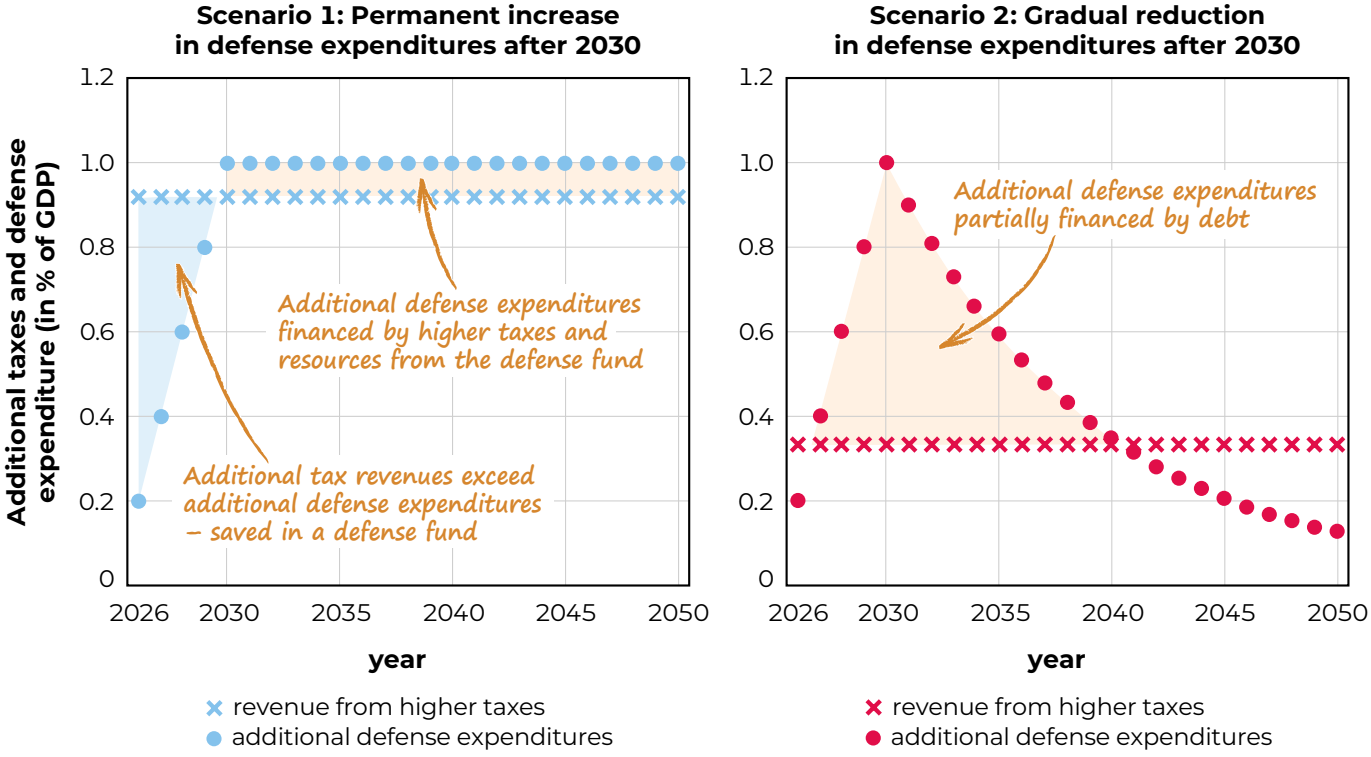
6 The simulation is based on a deterministic Ramsey model of optimal taxation, where tax rates create distortions by reducing the incentive to work. The parameters used are standard in the literature. Details are available upon request.

7 The different tax surcharges reflect the different present values of future expenditures.

8 See recent discussions summarized, for example, here: https://www.echo24.cz/a/HKi6k/zpravy-ekonomika-obranny-fond-nedava-smysl-vyssi-vydaje-musi-jit-na-dluh-ekonom-skorepa

Graph 2: Long-term increased defense spending should be financed through higher taxes

Additional annual defense expenditures and additionally collected taxes (as % of GDP)



In scenario 1, with a permanent increase in expenditures (left panel), the tax increase would correspond to approximately 0.9% of GDP, which would mean a contribution to the fund of 0.7% of GDP in 2026. During the "ramp-up phase" until 2030, the positive difference between the additional tax revenue and the increased defense expenditures would accumulate in the fund. After 2030, this accumulation would end, and the fund would begin to co-finance the increased defense expenditures in the following years.

In scenario 2, with a gradual reduction in expenditures after 2030 (right panel), the higher tax revenue would amount to 0.3% of GDP. In the first year, approximately 0.1% of GDP would go into the defense fund, while 0.2% of GDP would cover defense expenditures for 2026. However, after 2026, the additional defense expenditures would begin to exceed the additional tax revenues, continuing until 2040. Therefore, in scenario 2, it would be optimal to begin partially financing the expenditures through higher deficits (i.e., increasing debt) after 2026. This would raise public debt from the current 43.6% of GDP[9] to 50.6% by 2050 (an increase of 7 percentage points).[10]

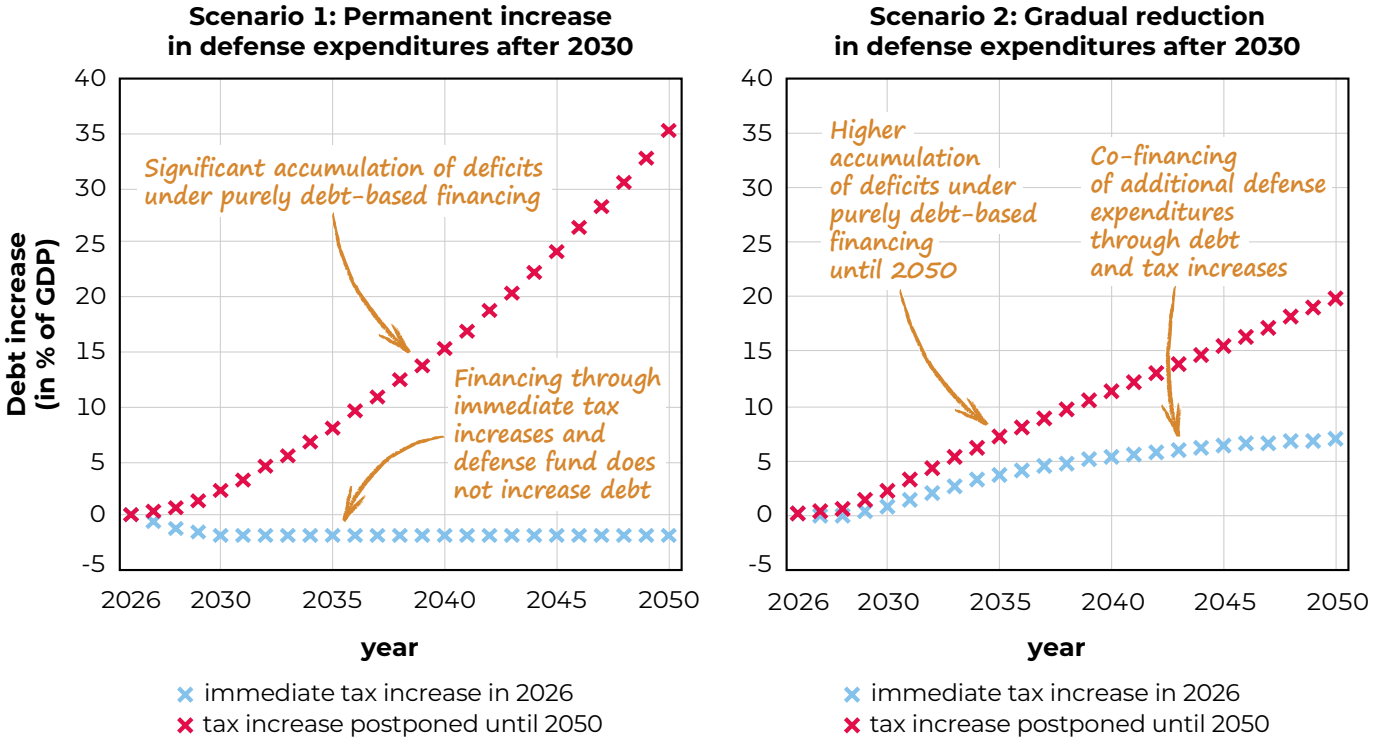
A partial conclusion of our analysis is that the economically optimal approach to financing additional defense expenditures fundamentally depends on whether the increase is long-term or temporary. In the first case—which currently appears more likely—it is optimal to implement a sharp tax increase starting in 2026. This would finance both the gradual rise in defense spending until 2030 and contribute to savings in a defense fund, from which resources would later be drawn.

9 https://csu.gov.cz/rychle-informace/government-deficit-and-debt-3-quarter-of-2024

10 The percentage of expenditures financed through taxes takes the shape of a U-curve. Without savings at the beginning, taxes would have to increase over time; similarly, without savings at the end, taxes would need to decrease over time; and without any savings at all, taxes would first rise and then fall. All of these patterns violate the principle of tax smoothing.

Graph 3: Debt financing with delayed higher taxation is inefficient

Increase in debt (as % of GDP) depending on the length of the tax increase delay



Consequences of debt

If taxes are not increased immediately and sharply in 2026, the rise in defense expenditures will still necessitate a tax increase sooner or later. The question then becomes how the level of indebtedness will evolve if the government initially finances the increase in defense spending solely through higher deficits—that is, by accumulating debt—without raising taxes. Even in this case, the outcome depends on how defense expenditures develop after 2030 and on the timing of the eventual tax increase. In our simulations, provided here as an example, we assume the tax increase would only occur in 2050.

Graph 3 illustrates the development of additional debt (as a percentage of GDP) for our two original scenarios: 1) a permanent increase in expenditures (left panel) and 2) a gradual decrease in expenditures after 2030 (right panel). Within each scenario, we distinguish between the case of an **immediate tax increase** (blue profiles) and a **tax increase deferred until 2050** (red profiles).

In scenario 1, which assumes a permanent increase in defense spending (left panel), an immediate tax increase in 2026 would prevent any rise in the level of indebtedness, thanks to surpluses accumulated early in the defense fund. However, if the tax increase were postponed until 2050, the situation would evolve very differently, with *additional* debt reaching 35% of GDP. In scenario 2, the debt level in 2050 would increase by 20% of GDP compared to 2025. In this scenario, even with an immediate tax increase, part of the spending would still be debt-financed, with debt gradually rising to 7% of GDP by 2050. The substantial increases in debt in both scenarios, in the case of delayed tax hikes, are the result of long-term accumulation of deficits and interest payments.

A partial finding of this simulation is that delaying tax increases is economically inefficient. The longer the tax increase is postponed, the more costly the solution will be.

Other aspects

The simulations presented here represent simplified model cases. Their advantage lies in their transparent presentation based on fundamental principles of optimal expenditure financing over time. Nevertheless, it is useful to consider additional aspects.

Financing by limiting other expenditures

Our considerations above have overlooked a third option for financing expenditures—reducing other public spending. This is because the structure of expenditures is a matter of societal choice and is therefore not primarily the subject of economic analysis, though any reduction in other spending implies lowering the need for financing defense through higher taxes or increased deficits. Empirical evidence shows that budget cuts in other areas to accommodate increased defense spending have historically been relatively rare.[11] In any case, our simulations apply to the portion of defense expenditures that will not be covered by reductions in other public spending.

Uncertainty regarding expenditure increase scenarios

We currently do not know which scenario of defense spending increase will materialize, that is, what the trajectory of defense expenditures will be. The most likely scenario today appears to be the need to reach and maintain a level around 3%, which our simulations are based on. Our simulations also consider a scenario targeting 3.1% of GDP in 2030 followed by a subsequent decline. However, a scenario requiring a more significant increase cannot be ruled out. The optimization we present can be generalized to situations with uncertain spending increase outlooks, but this is a far more advanced problem beyond the scope of this study and requires a deeper understanding of individual assumptions.[12] The basic economic principles, however, remain valid even in a more complex modeling framework, as do our key conclusions.

The impact of economic structure and the current economic situation

The effect of defense spending on GDP may or may not be reflected in GDP growth.[13] In the case of the Czech Republic, the impact of defense expenditures on GDP is likely to be more moderate, as a portion of these expenditures will be realized through imports, which, via the net exports component, reduce the overall value of GDP.[14] Another mitigating factor stems from the fact that the domestic economy is expected to grow at a relatively brisk pace in 2025[15], which may result in defense expenditures crowding out domestic investment as a result of tighter monetary policy responding to domestic inflationary pressures.[16] Nevertheless, because defense spending is determined as a fixed share of GDP, the influence of these factors is expected to be of secondary importance.

11 For details, see Marzian, J. and C. Trebesch: "How to Finance Europe's Military Buildup? Lessons from History", Kiel Policy Brief No. 184, February 2025.

12 For example, see Aiyagari, S. R., Marcet, A., Sargent, T. J., & J. Seppälä (2002): "Optimal Taxation without State-Contingent Debt", *Journal of Political Economy,* 110(6), 1220–1254.

13 Empirical estimates of the impact of government spending on GDP can be found in Gechert, S. (2015): "What fiscal policy is most effective? A meta-regression analysis", *Oxford Economic Papers*, 67(3), 553–580. The article summarizes 104 studies that estimate the impact of increased government spending on GDP. On average, the resulting GDP growth is lower than the amount of additional government expenditure. Compared to general government spending, the GDP impact of debt-financed defense expenditures is significantly more subdued.

14 The Ramsey model does not account for this channel, which dampens the direct impact of defense expenditures on GDP considered in the simulations.

15 The most recent forecast by the Ministry of Finance projects a 5.3% increase in nominal GDP in 2025; see https://www.mfcr.cz/cs/rozpoctova-politika/makroekonomika/makroekonomicka-predikce/2025/makroekonomicka-predikce-leden-2025-58624

16 A more inflationary domestic environment can also be expected as a consequence of the current situation in Ukraine. It is an empirical fact that inflation tends to rise during and after periods of armed conflict, not only in the economies directly affected by the conflict, but also in those that are geographically close or allied — see https://cepr.org/voxeu/columns/mapping-economic-costs-war

Debt financing and risk premium

An important aspect of debt financing is the existence of a risk premium associated with government bond yields.[17] An increase in the risk premium means higher costs of servicing government debt, and consequently, a rise in the debt itself. Such circumstances are typically linked to a significantly larger structural deficit and a higher level of indebtedness than we currently observe in the Czech Republic. However, for example, in model simulations of the first scenario with a permanent increase in defense spending and solely debt financing, the *increase* in government debt would amount to 35% of GDP. This is a situation in which the issue of the rising cost of government debt would become highly relevant.

Implementation delays in tax increases

Implementation aspects of different financing methods must not be overlooked. The planned increase in defense spending starting in 2026 anticipates a government resolution that will already have been adopted, but in practice, the resolution will be subject to approval by the new Chamber of Deputies following the elections, no earlier than the end of 2025. Public debt can be increased almost immediately and autonomously; in contrast, introducing new taxes or raising taxes requires a more time-consuming legislative and political process. Implementation delays are thus a practical reason for a higher share of debt financing at the very beginning of the defense spending increase cycle.

Key findings and recommendations

Based on the above analysis, several recommendations can be drawn regarding the financing of additional defense expenditures:

1. If feasible, it will be economically preferable to avoid unnecessarily frequent changes in tax rates. The fact that defense expenditures will vary over time is not decisive. What matters most is that future increases in defense spending are certain today.
2. It is appropriate to promptly formulate a long-term expenditure strategy extending beyond the next five years. This information is crucial for selecting an optimal tax strategy and setting up financing mechanisms at the current stage. Naturally, development of a credible strategy will require broad political and societal consensus.
3. Because, with high probability—if not certainty—we know today that we need to increase defense spending and subsequently to maintain it at a higher level than the current amounts, then from a purely economic perspective it is inefficient to finance the increase through rising deficits and thus higher debt. Instead, the optimal approach is to temporarily save additional revenues in a defense fund for future use.
4. Financing additional defense expenditures *through debt* can become very costly if the increase proves to be permanent.
5. In the case that the increase in defense spending is temporary, debt financing is justified, particularly given the time required to prepare and approve tax increases.

17 The risk premium represents an increase in yield due to the potential inability of the state to fully repay its debt.

In conclusion, it is important to reiterate that our considerations abstract from real political constraints, which—especially in an election year—are highly relevant. The final decision on how to approach financing of increased defense spending will therefore inevitably be a combination of economic and political factors. This is no different from the situation in other countries.

Currently, for example, Sweden has been increasing its defense spending since 2020, aiming for a 45% increase by 2025. Similarly, Japan plans to double its defense expenditures by 2027 compared to the amount spent in 2020. Both countries intend to finance these increases through higher taxes, which aligns with economic principles.[18] In contrast, Germany plans to finance its unprecedented increase in defense spending through debt, an economically inefficient approach.[19] Longer-term trends, such as military spending in the United States, indicate a shift away from purely debt-based financing toward tax-based financing, reflecting a move toward a more economically optimal model.[20]

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20 See Hall, G. J. and T. J. Sargent (2021): "Debt and taxes in eight US wars and two insurrections", The Handbook of Historical Economics, 825–880. Elsevier

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