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European defence spending in 2024 and beyond: How to provide security in an economically challenging environment

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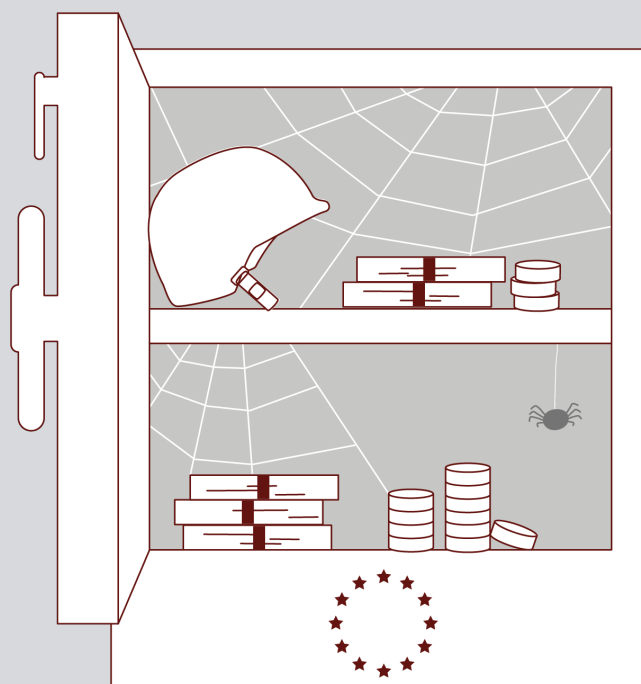
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European Defence Spending in 2024 and Beyond: How to Provide Security in an Econo- mically Challenging Environment

Florian Dorn, Niklas Potrafke, Marcel Schlepper





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European Defence Spending in 2024 and Beyond:

How to Provide Security in an Economically Challenging Environment

*Florian Dorn, Niklas Potrafke, Marcel Schlepper**

Abstract

Europe has to respond to a new and more contested security order. Russia's imperial ambitions threaten stability and peace, while the United States demands from the European NATO countries to contribute more to their own security. To improve defence capabilities, Europe has to increase defence spending immediately and also to create fiscal space for a permanent rise in defence spending. In this report, we show that both public debt and the tax burden are at a high level in most European countries. Therefore, issuing new debt or raising taxes to finance permanent higher defence spending may come with severe economic costs and do not seem a sustainable solution for most countries. We also show that many European countries have collected a considerable peace dividend since the end of the Cold War. In the same period, welfare states have expanded to a degree not backed by the general economic development. We estimate that if governments shifted around one percent of non-defence expenditure towards defence, this would be sufficient to meet the NATO 2%-target. In an economically challenging environment, however, European governments face trade-offs, as they also need to invest in transforming their economies and making them more competitive. In some countries, the public does not even support an increase in defence spending. Europe, hence, finds itself in a dilemma.

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Table of Contents

Executive Summary 3

1 Introduction 5

2 Europe’s Reliance on the Peace Dividend 6

3 Combining Defence with Healthy Public Finances10

4 Higher Taxes Are a Risky Bet14

5 Defence Spending Is a Question of Priorities.....17

6 Public Support to Pay the Bill for Defence Is Fragile21

7 Policy Conclusions.....23

List of Figures.....27

Appendix28

References.....31

Executive Summary

2024 will be an important year for security in Europe. Russia's imperial ambitions pose a serious threat to stability and peace. In the light of the 2024 United States' presidential election, European countries may have to simultaneously strengthen their own defence capabilities and increase military support to Ukraine. This puts Europe in a dilemma. Governments have announced that they want to increase defence spending. But they need to find financially sound ways to do so. While Europe have lived well from the peace dividend since the end of the Cold War, governments failed to plan for a time when it might come to an end. Against the background of scarce financial resources, European governments do not only aim for higher defence spending, but also have to invest into transforming their struggling economies and fighting climate change. The limited fiscal space confronts them with serious trade-offs. This report analyses how the 25 European NATO countries, including Sweden, may realise higher defence spending in the face of economically challenging times.

After the Cold War, most European countries did not perceive any serious external threat and reduced their military capabilities accordingly. On the one hand, this increased their reliance on the United States' protection. On the other hand, it allowed European countries to extract a total peace dividend of 1.8 trillion Euro relative to the NATO 2%-target since 1991. To move beyond the peace dividend seems to be difficult. While all NATO members have renewed their pledge to meet the 2%-target after the Russian invasion of Ukraine, in 2023 only ten out of 25 European NATO states have done so, mostly those located on Europe's Eastern border. Given the changing security environment, to just respond quickly may not be enough. European countries also need to create sufficient fiscal space to permanently increase defence capabilities.

In general, more fiscal space could be generated by issuing new debt, increasing taxes, or consolidating public finances. First, increasing the public debt ratio to finance defence spending can only be a short-term solution, since in many European countries the size of public debt already limits fiscal space significantly. Seven of 25 European NATO countries currently pay more on interest than on defence. Over time, strong defence capabilities and sustainable public finances have to go hand in hand. Given recent increases in interest rates, the debt burden may worsen in the coming years. Second, increasing taxes runs against the fact that the overall tax burden is relatively high in Europe. A comparison with OECD peers shows that the overall tax level in Europe is on average seven percentage points higher than in Asia and 15 percentage points higher than in America. Increasing the tax burden could severely hurt both economic growth and, thus, additional government revenue. In fact, European countries with a

lower tax burden relative to the gross domestic product (GDP) are more likely to meet the NATO 2%-target.

Third, consolidation of public finances is an option for raising defence spending permanently. Our analysis shows that European countries had to allocate between four and five percent of their general government spending to defence to meet the NATO 2%-target in 2023. During the Cold War, most European countries spent at least this budget share on defence. In the decades after the Cold War, however, many European governments collected a peace dividend by decreasing defence spending in favour of consumption. In particular, many expanded their social welfare systems to a degree not backed by the general economic development. After adjusting for inflation, social spending has grown by a factor of 2.4, while GDP has only grown by a factor of 1.9. Social spending is by far the largest spending position of European governments. Against this background, governments will likely not be able to avoid some form of consolidation of public finances. For most countries, shifting less than one percent of general government spending from other policy areas towards defence would be sufficient to meet the NATO 2%-target. But this comes at the risk that voters may not support such consolidation.

To meet the new security challenges within a difficult economic environment in Europe, policymakers should follow four general guidelines: First, implement growth-friendly policies. Economic competitiveness and growth will provide additional resources to ease the trade-off between defence spending and other spending categories in the medium term. Second, keep a strict focus on sustainable public finances. Public debt ultimately comes with high interest payments. In the medium term, interest payments will consume funds that would otherwise be available for defence spending or for other investments needed to move towards a green, digital, and competitive Europe. Third, governments need to review their spending behaviour to make sure that, for example, spending on subsidies and on the welfare state do not limit their ability to invest or to perform core government functions. Fourth, efficiency gains in the use of financial resources for building defence capabilities should be identified. This also includes a better coordination and collaboration at the European level. Given that citizens are in favour of re-prioritising European defence, existing European Union (EU) resources could be shifted to the European Defence Fund as a European public good.

1 Introduction

The European security architecture has developed serious cracks in recent years. Russia started a war close to NATO's Eastern border to satisfy its imperialist ambitions. While posing less of a direct threat, Europe's neighbourhood has become a more dangerous place as well. Azerbaijan conquered Nagorno-Karabakh by force. Israel is attempting to destroy Hamas in response to its terrorist attacks. Stability in the Balkans is fragile once again. Abroad, European armies and their allies dramatically failed to pacify and stabilise Afghanistan and the Sahel. These events made clear that Europe is not capable to achieve its foreign and security objectives. This makes it imperative for Europe to now grasp the changes in the geopolitical environment, to align military capability planning accordingly, and to provide the required financial means.

Chinese efforts to expand its sphere of influence are forcing the United States to shift its focus towards Asia. American voters and policymakers are becoming less willing to pay the security bill for European partners that have comparable economic strengths. Hence, decades of free-riding on the United States' security guarantees are likely coming to an end. While this situation requires immediate and serious investments in Europe's defence capabilities, actions have been slow. The European NATO members¹ renewed in 2023 their pledge to spend two percent of their GDP on defence, but it remains an open question whether all of them are willing to deliver on this pledge. While countries closer to the conflict have increased their defence spending, others moved slowly. The reason for the lack of commitment is that Europe does not only face a security crisis.

To master the demographic, digital, and climate transitions, European countries need to invest large sums into transforming their struggling economies. But after years of overspending in government consumption and the expansion of welfare states, many public budgets are stretched. Increasing interest rates require these governments to pay the bill for the excessive debt-making. Consolidating budgets is not easy either. For example, reducing transfers or increasing taxes would impact economic well-being and could polarise the politically fragmented societies in Europe further.

Europe is in a dilemma. It needs to increase defence capabilities to be able to protect its citizens from the horrors coming with war and terror. While reducing purchasing inefficiencies as well as improving defence cooperation and integration among European armies are key steps, they will take time to materialise. In this light, Europe

¹ This report covers 24 European NATO members plus Sweden. Due to data availability, we focus on NATO members that are also EU members, plus Norway and the United Kingdom. These 24 countries (without Sweden) were responsible for 96% of NATO defence spending on the European continent and 28% of overall NATO defence spending in 2023 (NATO, 2023a).

needs to move towards higher defence spending. The European governments even announced that they want to spend more on defence. But this comes with political trade-offs. Governments therefore struggle to make sufficient financial resources available. Should they finance higher defence spending by issuing new debt, by raising taxes, or by consolidating budgets in other areas? In this report, we discuss how European governments may permanently afford higher defence spending even in economically challenging times.

2 Europe's Reliance on the Peace Dividend

After the Cold War, most European countries no longer perceived a threat of war on their borders (see for example Bunde, 2022). As their defence capabilities diminished, they have become increasingly dependent on the United States to provide security. Nowadays, the United States pays 70% of total defence spending within NATO – having increased from 61% in 1990 (Dorn et al., 2023). At 44 billion Euro by autumn of 2023, the United States is also by far the largest donor of military aid to Ukraine, providing as much military support to a conflict in the European theatre as all EU institutions and member states combined (Trebesch et al., 2023).² For deterrence, Europe also relies on the United States' nuclear umbrella, since the French and British stocks of nuclear warheads are each less than 10% of the United States' holdings (Kristensen et al., 2023). In terms of military equipment, the United States has for example 1.8 times more fighter jets than all European NATO members combined (IISS, 2023). Fighter jets are a key element to establish air supremacy and enable military operations according to NATO doctrine. In a similar vein, no NATO member other than the United States has developed fifth-generation fighters. Furthermore, 40 of the 100 largest arms producers are located in the United States compared to just 26 in Europe (SIPRI, 2022). In 2021, these American firms produced arms worth 300 billion dollar, which is nearly three times as much as all European defence firms (ibid). Industrial capacity for arms and ammunition production is important though to sustain in a war and, hence, to credibly deter it.

Europe's and the United States' military capabilities diverged over time as European countries did not feel threatened and focused on other policy areas. Since the NATO treaty states that an attack against one member will be seen as an attack against them all, the United States' defence capabilities in essence provided a public good to all other members. Inevitably, this offers large free-riding opportunities as long as the United States, the global military superpower, is willing and able to credibly commit to defend its European partners. For the past several decades, most European countries were

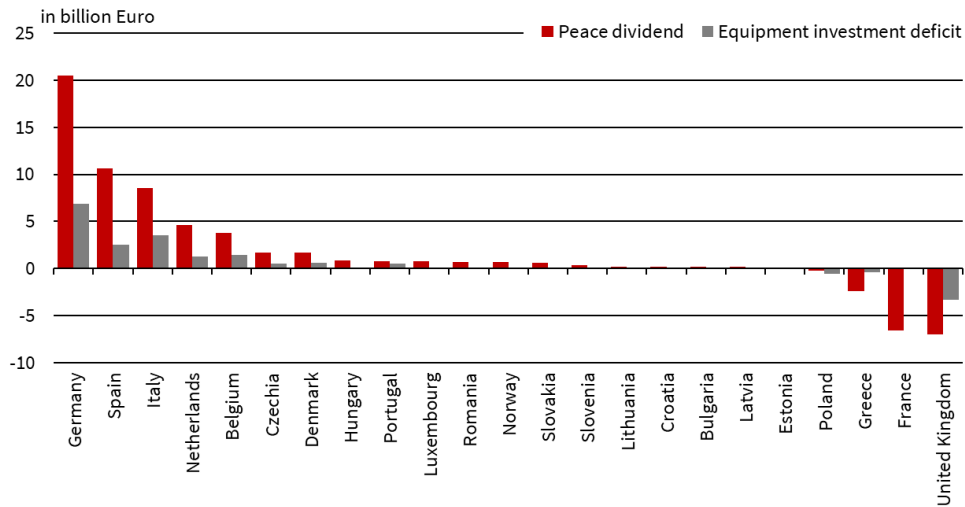
² Including Norway and the United Kingdom, however, the European NATO members surpass the United States in terms of military donations to Ukraine by 8 billion Euro.

keen to cash in on the peace dividend - saving on defence to increase the budgets for other policy areas. Figure 1 shows the annualised peace dividend and investment deficit on major equipment since the end of the Cold War. Since then, the peace dividend accumulated to 1.8 trillion Euro compared to the NATO 2%-target and the investment deficit reached 0.6 trillion Euro compared to the 20%-rule.³ France and the United Kingdom are the only countries among the five largest European economies that did not collect any peace dividend – when assuming that the NATO 2%-target is sufficient.⁴ On the other side are Germany, Spain, and Italy, with annualised peace dividends ranging from eight to 20 billion Euro. Since 1991, Germany has accumulated 680 billion Euro peace dividend and 230 billion Euro investment deficit – which are both more than one-third of the total for European NATO members. The resources saved on defence were channelled into expanding the state in other areas. On average, the price-adjusted government budgets for 2023 were nearly twice as large as at the end of the Cold War (or at the time the more recent members joined NATO). For example, governments in France, Germany, and the United Kingdom each spend today approximately 600 billion Euro more per year than in 1991. At the same time, the government share, i.e. the overall government spending relative to GDP, remained relatively constant.

³ Through the 2%-target, NATO members commit to spend at least two percent of GDP on defence (NATO, 2023a). While this does not guarantee that funds are spent in the most efficient way, it is an important indicator of whether countries contribute sufficient resources to the alliance's defence. Since NATO agreed on this spending threshold to ensure defence capabilities, we use this as benchmark for our analysis. NATO first agreed on the 2%-target in 2006, and it was publicly renewed in 2014 and 2023. We also employ it as a benchmark for the period from 1991 to 2005. The 20%-rule states that at least 20 percent of defence spending is supposed to be used for major equipment spending.

⁴ We measure the peace dividend in comparison to the NATO 2%-target. However, there are reasons to believe that this might not be enough to provide sufficient defence capabilities. First, NATO itself announced, in its Vilnius Summit Communiqué (NATO, 2023b), that *“we affirm that in many cases, expenditure beyond 2% of GDP will be needed in order to remedy existing shortfalls and meet the requirements (...) from a more contested security order.”* At the end of the Cold War, NATO defence spending was above 4% of GDP (NATO, 2023a). Even today, the NATO front states which are at most risk of being attacked by Russia have higher defence spending than 2% of GDP. The three Baltic states are aiming for 3% of GDP (LRT, 2023) and Poland nearly reached 4% of GDP in 2023. Also, the United Kingdom announced that it would aim for defence spending of 2.5% *“as fiscal and economic circumstances allow”* (HM Government, 2023). Second, other Western countries that are facing constant military threats have also spent more than 2% of GDP on average on defence over the past ten years (SIPRI, 2023): South Korea (2.6%), United States (3.5%) and Israel (5.3%). Third, Russia is planning to spend 6% of GDP on defence in 2024 and is moving increasingly towards a war economy (Bloomberg, 2023). Finally, in response to Russia's annexation of Crimea in 2014, Ukraine increased defence spending to an average of 3.3% of GDP (SIPRI, 2023). In 2022, Ukraine spent 34% of its GDP to defend itself against the Russian aggression, illustrating the high burden of war on state budgets (ibid).

Figure 1: Annualised Average Peace Dividend and Equipment Investment Deficit since 1990
Adjusted to 2023 price-level. Analysis starts with first year of NATO membership for each country.



Source: NATO (2023a); IMF (2023); own calculation.

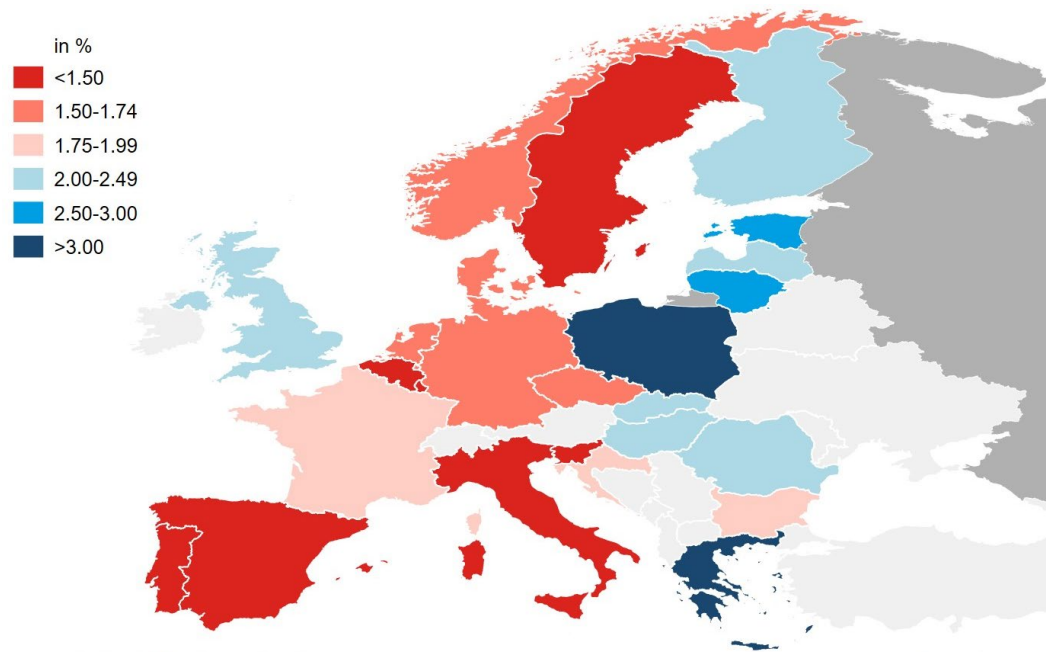
Note: Finland and Sweden are not included. Conversion into euros based on exchange rates from 01.11.2023 at www.x-rates.com. Peace dividend is calculated relative to the NATO 2%-target (see footnote 4 for a discussion). Equipment investment deficit is relative to the 20%-rule in combination with the 2%-target (see footnote 3).

Some European countries have become reliant on the peace dividend, so that not even a growing security threat in their immediate neighbourhood gives rise to a sufficient adjustment of spending priorities. While many public budgets in Europe show chronic deficits, voters still demand to sustain a comprehensive welfare state. In the context of the Russian war against Ukraine, citizens and companies in Europe have demanded financial support to compensate for increasing energy prices, high inflation, and a generally stumbling economy. Given that the Covid-19 pandemic had already constrained fiscal leeway, governments had to make choices on how to spend the limited resources. While all NATO members announced that they will spend at least 2% of GDP on defence, only ten out of 25 European NATO members plus Sweden were expected to meet the 2%-target in 2023.⁵ So far only Eastern European countries have strongly increased their defence spending in response to the new security environment (see Figure 2). This may reflect that with greater physical distance from Russia the threat of being attacked on one's own soil and, hence, the urgency for governments to invest in protecting their citizens decreases. The failure to deliver upon the commitment, however, shows similarities to the previous decade. All NATO members pledged to (at

⁵ Even for those countries that already meet the NATO 2%-target, the question of how to finance defence sustainably remains relevant. Their current defence spending is not necessarily based on sustainable public finances, and some may feel the need to go beyond the NATO 2%-target in future. For example, the UK's Prime Minister, Rishi Sunak, had to overturn the pledges by his predecessors to spend 2.5%, or even 3%, of GDP on defence by 2030 (Kirk-Wade, 2023). He both cancelled the timeframe and added the condition "*as fiscal and economic circumstances allow*" (ibid) showing how crucial the state of public finances is for financing defence.

least) move towards the 2%-target in 2014, but very few actually reached the threshold. This illustrates how strong the trade-offs in terms of government spending are for many European countries and how much they depend on the financial resources extracted from the peace dividend. As some governments are not willing or able to decrease other parts of public spending, they rather fail to meet their international NATO agreements and thus risk the goodwill of the United States to maintain its commitment to protect its the European allies.

Figure 2: Defence Spending Relative to GDP in 2023 by Geography



Source: NATO (2023a); Dorn et al. (2023); own illustration.

The United States is already sending strong signals that European countries must invest more and faster in their own defence. To respond to China's increasingly hostile behaviour, the United States wants to shift its focus towards the Indo-Pacific, while its European partners are supposed to take more responsibility for security in their own neighbourhood (The White House, 2022). The first implications are already being felt in late 2023, as partisan disputes between Democrats and Republicans have led the latter to block and delay aid to Ukraine (Financial Times, 2023). The United States' military support for Ukraine may collapse during the US presidential election campaign and especially afterwards (Belin et al., 2023). In that case, Europe would have to rebuild its own military capabilities and to step up its financial support and weapon deliveries to Ukraine to compensate the United States' withdrawal. Europe would have to act as preventing Russia from occupying Ukraine and stopping its appetite for imperialistic expansion are central European security interests. But for Europe to support Ukraine adequately in a long war, much urgent work remains to be done (Dumoulin et al., 2023).

Experts and intelligence agencies also expect the Russian army to be reconstituted and equipped to attack a NATO member within six to ten years after extreme hostilities have ceased in Ukraine (Mölling and Schütz, 2023). Russia may even exploit a potential clash between the United States and China in the late 2020s to break Article 5 of the NATO treaty (Bronk, 2023). If European governments want to be prepared for this scenario, they will have to act quickly on the promises they have made to NATO. It is at the core of governmental responsibilities to protect citizens against external threats. Recent conflicts have reminded Western societies of the horrors of war. Now they need to discuss the costs of permanently higher defence spending and the trade-offs arising from leaving the peace dividend behind.

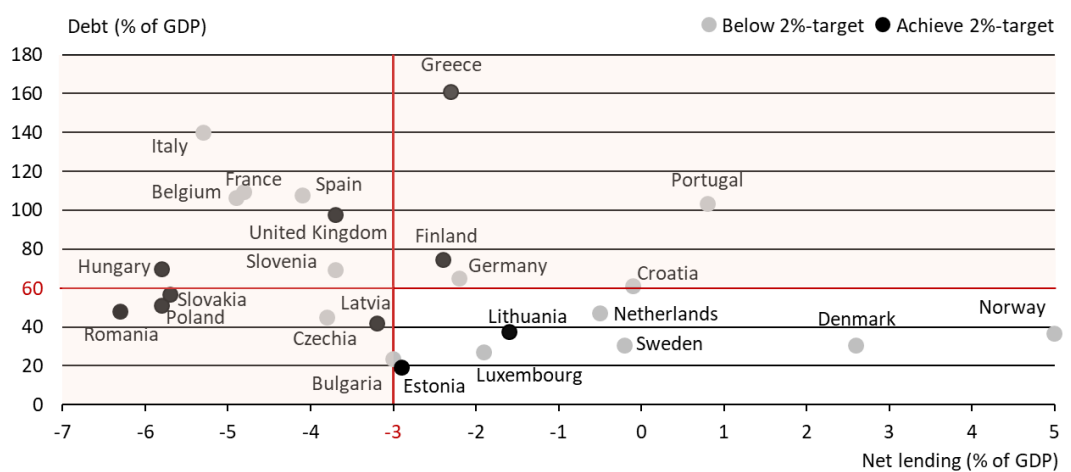
3 Combining Defence with Healthy Public Finances

Improving defence capabilities in Europe requires countries to increase defence spending now and to get into a position where permanently higher defence spending is fiscally possible. The current security environment forces Europe to think now about the coming decades. Neither the threat arising from Russia, nor the growing geopolitical tensions will disappear soon. The Chinese efforts to overtake the United States as the leading military superpower will permanently shift the United States' focus away from Europe. Further, military planning horizons are long, and it will take time until current investments in defence materialise into higher defence capabilities. Military planners are now making decisions on weapon systems that will be deployed in more than a decade. Also, the European defence industry will only expand its capacity sufficiently and invest in innovation if higher defence spending can be expected (or is even committed) over a longer period. Ultimately, increasing investments today will also bring about higher maintenance costs over the operational life of the purchased systems. It is necessary, therefore, to provide answers to both how defence spending can be increased immediately and how it can be maintained at this higher level.

Permanently higher defence spending can only be achieved in combination with sustainable public finances. Otherwise, rising public debt ratios (i.e. debt relative to GDP) will require an ever-larger share of the government budget to be spent on interest payments. When a state's public finances are fragile, defence spending is usually one of the least controversial sources for savings in peacetime. Europe will therefore only be in a position to provide security once it finds ways to achieve both sustainable debt levels and higher defence spending. In 2023, only Estonia and Lithuania spent more than 2% of GDP on defence and had finances in line with the Maastricht criteria (see

Figure 3), which set the upper limit for the debt-to-GDP ratio at 60% and the fiscal deficit at 3% of GDP. While the Stability and Growth Pact (SGP) including the Maastricht criteria was suspended between 2020 and 2023, it is active in 2024 again.⁶ The economic forecast of the European Commission suggests that those countries that did not meet the thresholds in 2023 will also not meet them in 2024, with the exception of Croatia and Czechia (see Appendix). Most countries do either lack sufficient defence spending or have to stop debt-making – often both. There is a small group of five countries (Denmark, Luxembourg, Netherlands, Norway, and Sweden) with low debt ratios and low net borrowing, but which fail on the NATO 2%-target. If needed, these countries could increase their fiscal space by issuing debt to raise defence spending for a transitional period.⁷

Figure 3: State of European Public Finances in 2023 Relative to Maastricht Criteria



Source: AMECO (2023); Dorn et al. (2023); NATO (2023a); own illustration.

Note: Norway has a net lending of 22% of GDP. For illustrative purposes, it is presented at the border of the figure. EU debt rules do not apply to the United Kingdom and Norway. The SGP is only active in 2024 again. See Appendix for forecasted debt and net lending in 2024.

Financing defence spending through debt can only be a short-term solution though. After events such as the Russian invasion of Ukraine, debt makes it possible to invest in defence without having to immediately cut budgets in other areas. Financing defence through debt, however, may feed the fallacy that security is granted for free, which reduces the pressure for budget adjustments. The German 100 billion Euro debt-

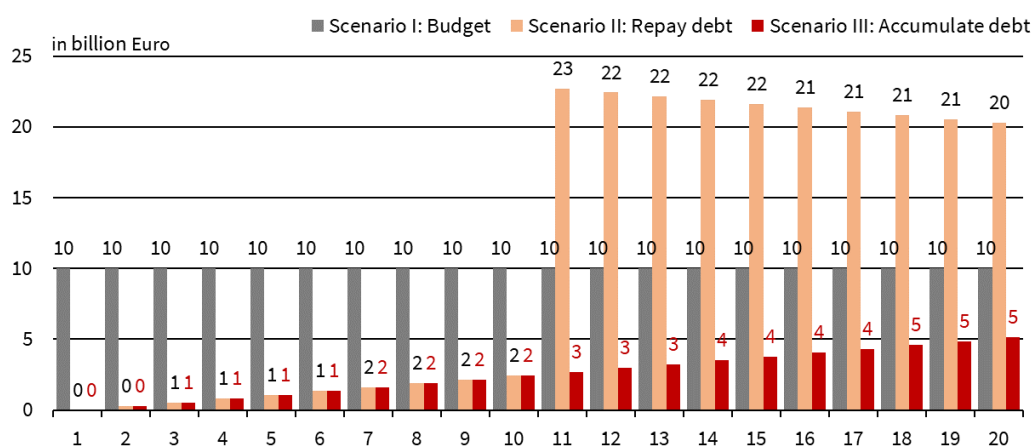
⁶ The EU Commission, Council, Parliament are currently negotiating a reform of the Stability and Growth Pact which is supposed to be passed during 2024. However, the current 3% fiscal deficit limit and the 60% debt limit, as a proportion of GDP, are expected to remain in place (Council of the EU, 2023). For a discussion see Blesse et al. (2023) and Fuest (2023). The SGP does only take explicit debt into account, while implicit debt, which will arise in future due to current policies, is ignored. For example, for Germany implicit debt is estimated to be close to 400% of GDP (Raffelhüschen et al., 2022).

⁷ For these countries net borrowing is close to zero and some even have budget surpluses (see Figure 3). There is a good chance that they do not need to issue new debt, but rather are able to pay for the increased defence spending out of their revenues.

financed special fund is a good example for such failure. Germany's core defence budget is actually decreasing and the money from the fund indirectly benefits spending unrelated to defence (Dorn and Schlepper, 2023). Debt also entails interest rate costs, which will over time provide an additional challenge to the government budget. For example, if a country has to close an annual 10 billion Euro defence spending gap over 20 years to meet the NATO 2%-target, there are three scenarios on how to finance this: (I) the current budget, (II) taking on debt for the first ten years and repaying it for another ten years, or (III) accumulating debt and paying only the interest. Figure 4 shows that financing defence through debt will come at increasing costs. In all three scenarios, 200 billion Euro is spent on defence, but in scenario II a further 27 billion Euro and in scenario III as much as even 51 billion Euro have to be paid on debt interest alone. In scenario II, the burden of financing defence is just shifted towards the latter ten years, when the government has to pay more than 20 billion Euro annually. In scenario III, in contrast, the debt is not repaid, and 200 billion Euro of debt are accumulated - coming with the risk of more fragile public finances. After 20 years, in scenario III the annual costs for interest alone are already half the cost of defence spending. When public finances become fragile, a credit rating downgrade could worsen the situation further, pushing up the costs of refinancing. The interest payments may ultimately compete with defence spending for funding.

Figure 4: Cost of Financing Defence Spending through Debt - Over a Period of 20 Years

Annual government spending. Simulation for financing defence worth 10 billion Euro annually.



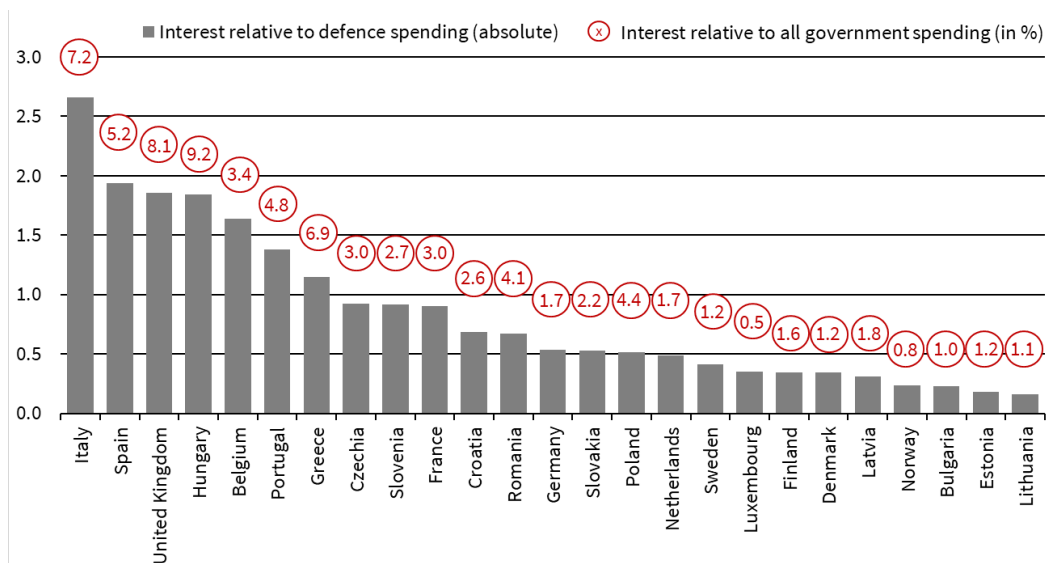
Source: Own calculation.

Note: In scenario III, after 20 years the debt level is 200 billion Euro. In the other two scenarios, the country is debt-free. It is assumed that the debt is financed through ten-year bonds at an interest rate of 2.7%, the interest on ten-year German bonds on 15th November 2023 (Bundesrepublik Deutsche Finanzagentur GmbH, 2023). For most countries, the results will be even more dramatic since their governments have to pay higher interest rates than Germany's.

In reality, government debt in many countries is already so high that it significantly limits their fiscal space. While interest rates for issuing government bonds were close to zero in recent years, it seemed attractive to accumulate debt at basically no direct cost. However, with interest rates now at much higher levels, interest payments have become a huge burden on public budgets. A large fraction of government revenue is already consumed to pay debt interest – often more than what is available for defence. For example, Italy devoted more than seven percent of its government spending to interest payments, which is 2.7 times more than it spent on defence in 2023 (see Figure 5). In total, seven out of 25 European countries paid more on interest than they spent on defence. This included some of the largest defence spenders in Europe, such as the United Kingdom, but also countries with low defence spending relative to GDP, such as Italy and Spain. The high costs of debt are a direct consequence of the high debt ratios of around 100% of GDP in countries like France, Spain, and the United Kingdom, and even higher in Italy (140%) and Greece (160%).

Figure 5: Interest Burden Arising from Government Debt in 2023

Relative to defence spending and relative to government spending.



Source: AMECO (2023); Dorn et al. (2023); NATO (2023a); own calculation.

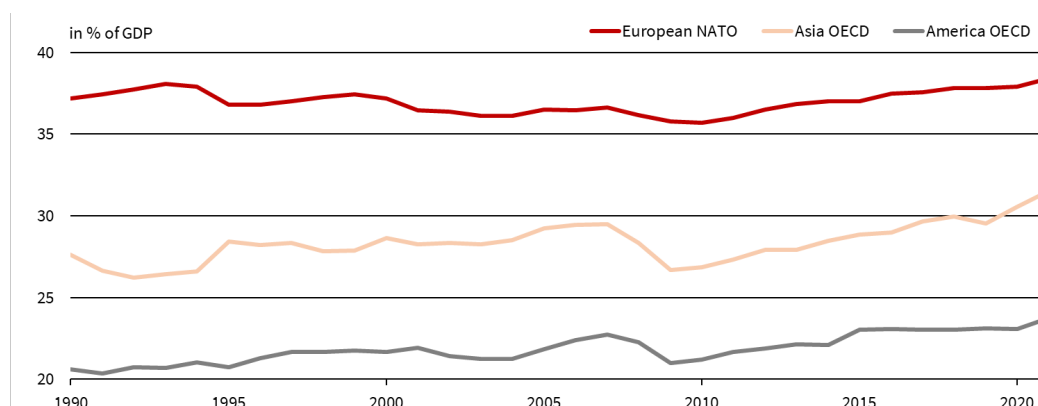
While high debt service costs already limit fiscal space in many European countries, the interest burden is likely to worsen over the coming years. Government bonds are usually issued over multiple years or even decades. Each year, a certain share of bonds must be renewed under new conditions if the debt has not been repaid. In the current context, this means that bonds will change from previous (low) interest rates to new (higher) interest rates. For example, in 2024 Italy is expected to issue bonds worth more than 500 billion Euro (Reuters, 2023). This is approximately one-sixth of Italy's total public debt (AMECO, 2023). The costs for Italian 10-year government bonds have risen

from less than 1% in 2021 to more than 4.9% in October 2023 (ECB, 2023). At these rates, the additional costs on interest would be 20 billion Euro annually - just for the bonds refinanced in 2024. Given the large burden debt places on public finances in Europe, it comes as no surprise that countries are searching for creative solutions. The German government, for example, is classifying interest rates arising from the 100 billion Euro special defence fund as defence spending (Dorn and Schlepper, 2023). Italian politicians have repeatedly proposed that defence spending be considered an exception to the European fiscal rules (Euractiv, 2023). However, the previous discussion has shown that this is short-sighted, as debt will restrict the fiscal space for future governments. For example, the largest cuts in European defence spending (since the immediate aftermaths of the Cold War) occurred in the context of the financial and the sovereign debt crises after 2008. Increasing the debt ratio to finance higher defence spending is not a sustainable solution. In the long run, strong defence capabilities and healthy public finances must go hand in hand.

4 Higher Taxes Are a Risky Bet

While higher taxes could address both low defence spending and high government debt, European countries already collect large amounts of taxes. Figure 6 shows that the tax burden is high in international comparison to other OECD members. The gap has slightly narrowed over time, but in 2021 tax revenue relative to GDP was still on average 38% among European NATO countries, which is seven percentage points higher than for Asian and 15 percentage points higher than for American OECD peers. As tax revenues have been approximately constant relative to GDP over time, this implies that European governments have drawn from an ever-increasing price-adjusted pool of funding. Economic growth is key for this – it allows governments to expand without necessarily putting an additional burden on companies and citizens. In contrast, increasing taxes may hamper competitiveness and growth, being therefore a risky bet. Taxes are already high in Europe and have increased since 2010 by three percentage points. This makes it more difficult to attract new businesses and investment, to keep existing ones, or to see businesses expanding. In the global Economic Expert Survey, 27% of the participating European economists stated that taxes are among the factors with the largest negative impact on their countries' attractiveness as a business location (Dörr et al., 2023). In comparison, taxes were mentioned by less than ten percent of economists in the United States or in Asia as a negative factor for their countries' attractiveness.

Figure 6: Development of Tax Revenue for OECD Countries Relative to GDP since 1990
Average by continental group.



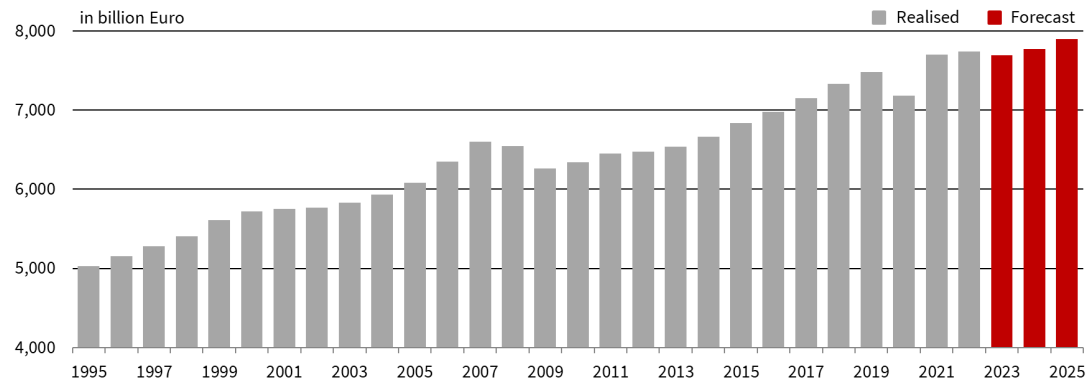
Source: OECD (2023a); own calculation.

Note: Data ends in 2021. Tax revenue includes revenue from mandatory social security contributions. Bulgaria, Romania, and Croatia are not OECD-members and are not included. "Asia OECD" comprises Australia, Israel, Japan, South Korea, and New Zealand, and "America OECD" comprises Canada, Chile, Colombia, Costa Rica, Mexico, and the United States. For Australia and Japan, values for 2021 are missing and extrapolated from 2020. Data for the eight former members of the "Eastern bloc" such as Lithuania, Poland and Slovenia is available from different points between 1991 and 1995, which changes the group composition of "European NATO" in this period. Data for Israel is available from 1995, which changes the composition of "Asia OECD" in that year.

Government revenues are expected to increase over the coming years (see Figure 7). After accounting for inflation, total government revenues in Europe are expected to be one percent higher in 2024 and three percent higher in 2025 than in 2023. This implies that all government expenditures such as wages, transfers and purchased goods could be increased by inflation and governments would still have additional resources available to spend. In absolute terms, in 2025 around 200 billion Euro will be available as government revenue for the European NATO countries in addition to the current level. This increase is in line with historic developments, where European governments have in most years had more resources available than in the preceding ones. This shows that increasing taxes is not only risky due to potentially adverse effects on growth and competitiveness, but also not necessary, since government revenues are increasing automatically. The additional funds could be employed to finance future defence spending, if they are not employed for other policy areas - neither through governmental choice nor mechanisms that automatically increase certain policies beyond inflation.

Figure 7: Development of Total Government Revenue since 1990

Adjusted to 2023 price-level. Sum of all current European NATO members, except UK.

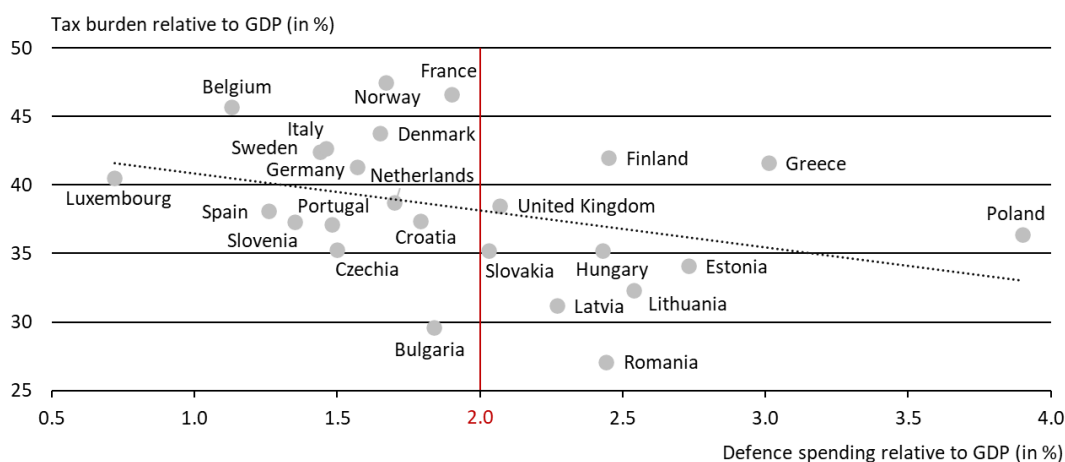


Source: AMECO (2023); IMF (2023); own calculation.

Finally, a cross-country comparison shows that a higher tax burden is associated with lower defence spending (see Figure 8). On average, European countries that meet the NATO 2%-target have an overall tax burden of 35% of GDP, which is five percentage points lower than those failing to meet the NATO 2%-target. Also, among the ten countries with a tax burden above 40% of GDP, only Finland and Greece spend two percent of GDP on defence. This suggests that low defence spending is not due to a lack of fiscal resources, but rather due to a political decision to prioritise other areas of public spending. It shows that increasing taxes is far from sufficient to achieve higher defence spending. Countries with low defence spending tend to already have a high tax burden. A further tax increase would increase the burden on taxpayers and reduce the country's attractiveness as a business location, with potentially adverse effects on economic growth.⁸ Given the generally high tax level in Europe, increasing taxes cannot be the universal solution to providing funds for defence and investment. However, some countries with a relatively low tax burden may conclude that the additional government funds generated from a minor tax increase may be worth the costs.

⁸ It is worth noting that the three Baltic states are managing to meet the NATO 2%-target and simultaneously have low debt ratios and a low tax burden.

Figure 8: Relation between Tax Burden and Defence Spending in Europe in 2023



Source: AMECO (2023); NATO (2023a); own calculation.

Note: A different source for the tax burden than in Figure 6 is employed here. While OECD (2023a) allows for an international comparison beyond Europe, it is only available until 2021 and excludes three countries covered in this report. AMECO (2023) includes those countries and goes beyond 2021. Values in both datasets are closely correlated. In 2021, the tax burden in AMECO (2023) is on average one percentage point higher than the one in OECD (2023a).

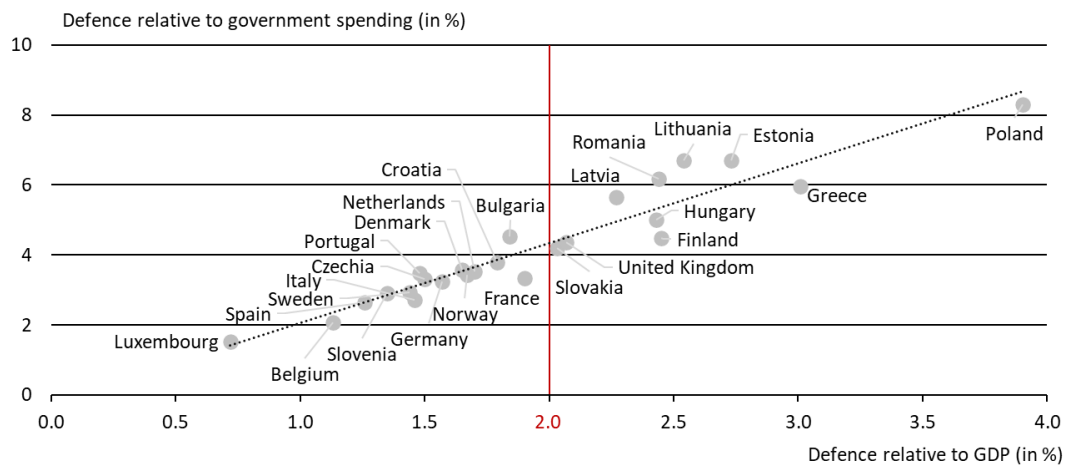
5 Defence Spending Is a Question of Priorities

Whether European countries achieve a sufficient level of defence spending depends on their individual priorities. Theoretically, there are two reasons why a country may spend too little on defence. The overall size of a government may be small, implying that all government functions receive relatively little funding compared to GDP. Alternatively, the overall size of a government may be large and the government just prioritises other policy areas over defence. In Europe, we frequently observe large governments that just do not prioritize defence spending. This is in line with our previous finding that countries with low defence spending tend to extract more taxes. Figure 9 illustrates a rule-of-thumb, namely that European countries had to allocate between four and five percent of their general government spending to defence to reach the NATO 2%-target in 2023. This implies that more than 95% of government funds were still available for other policy areas.⁹ However, the majority of governments do not seem willing or able to even allocate this relatively small share of funds to defence. Large economies such as Belgium, Italy, and Spain currently allocate only between two and three percent of

⁹ This refers to the general government, which includes the federal, state, and local authorities as well as social insurance providers. They jointly fulfil all government functions. As the allocation of tasks to these authorities varies between countries, only looking at federal budgets would distort the comparison – even though defence is usually only paid at the federal level. While the share of defence in federal budgets is larger than the numbers presented here, this would ignore that the federal level only covers a fraction of all government functions.

their government expenditure to defence. It was different when defence capabilities had a higher priority during the Cold War. Belgium, Italy, and Spain all allocated around four percent of government spending to defence in 1990.¹⁰ For Germany, it was close to five percent. France spent seven percent and the United Kingdom ten percent of their general budget on defence. Europe is once again entering a critical security environment, but for some governments allocating four to five percent of their budgets to defence seems to place too much of a burden on the other governmental functions. Consolidating public budgets may come with high political costs. To understand the political concerns, we have to understand how government expenditure and its components have changed over the past decades.

Figure 9: Importance of Defence Spending in Government Budgets in 2023



Source: AMECO (2023); Dorn et al. (2023); NATO (2023a); own calculation.

Since 1990, European countries have expanded their social welfare states to a degree not backed by the general economic development. For those countries which joined NATO during the Cold War, Figure 10 shows that social spending has outgrown the economy, overall government budgets, gross fixed capital formation (i.e. investment), and education spending. Today, both government budgets and the economy are, price-adjusted, around 1.9 times the size of 1990.¹¹ In contrast, social spending has grown to 2.4 times the original size. This is the result of social spending continuously increasing – both in times of crises, when it is employed to reduce economic hardship, and in times of economic growth, when it is employed to redistribute the economic gains. Partially it is also due to past social policies not having been reformed to account for new socioeconomic realities, such as the retirement age being too low given demographic change and extended life expectancy. Other spending categories, such as education or

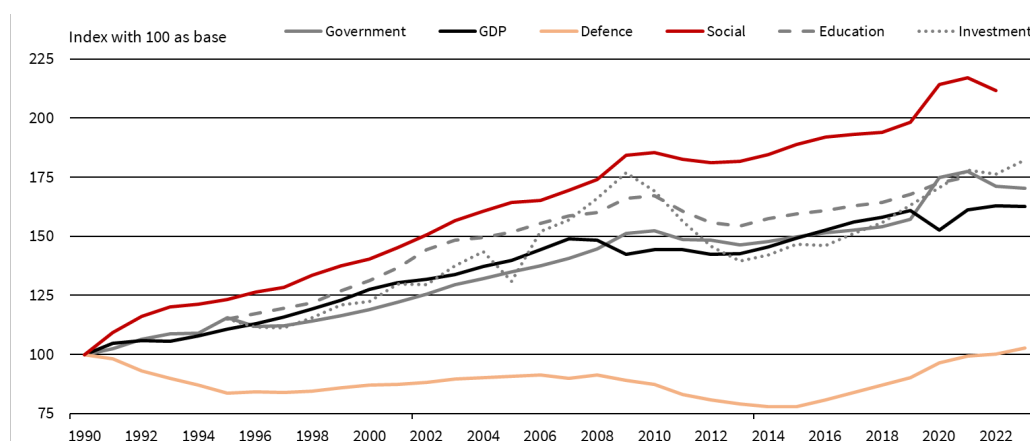
¹⁰ Due to data availability, government spending in 1990 is taken from IMF (2023).

¹¹ It should be noted that a majority of governments had higher expenditure than revenue in 1990 and have continued this budgeting practice for most years ever since.

investment, have been less robust in the face of changes in the economic environment. While both are crucial to lay the foundation for future economic growth, they were subjected to strong cuts around the financial and sovereign debt crises after 2008 and it took them a decade to recover. Now, investment and education spending are once again approximately in line with the general budget's growth. Finally, the development of defence spending since 1990 is to some degree the mirror image of social spending. After the end of the Cold War, governments immediately started to reduce defence spending. For the first few years, the peace dividend could be employed to finance the expansion of the welfare state. Afterwards, defence spending remained at a low level for three decades and only reached the price-adjusted level of 1990 again in 2022.¹² Once parts from the defence budget are shifted to other areas during peace, it is difficult to cut their budget shares to reallocate funding back to defence purposes - sometimes because of legal obligations, sometimes due to lack of political will. The difficulties arising from pushing defence spending up in line with economic growth can be illustrated in the context of the disproportionate growth of welfare states.

Figure 10: Development of GDP and Spending Categories for European NATO since 1990

Price-adjusted for 2023 prices. GDP-weighted average for NATO members joining before 1990.



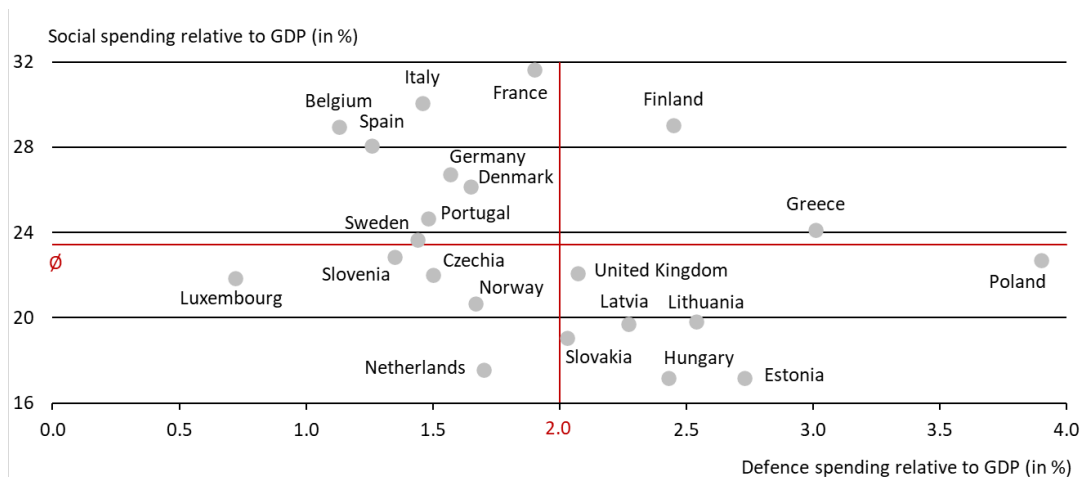
Source: AMECO (2023); IMF (2023); NATO (2023a); OECD (2023b, 2023c); own calculation.

Note: Government expenditure for Luxembourg from 1990 to 1994 is extrapolated from 1995, and for Germany for 1990 from 1991. As data for education spending and investment is only available from 1995 onwards, these indices start at the level of the general government index in 1995 for illustration purposes. The figure only includes the NATO members that joined NATO before 1990. Results for the other countries can be found in the Appendix, starting with the year of joining NATO. Unlike in other analyses, IMF data on government spending is employed here because it spans a longer period than the AMECO data.

¹² In the Appendix, we show for each country individual growth rates for GDP, general government spending, and spending on defence, social policies, investment, and education. Having employed a weighted average, our analysis in Figure 10 conceals some interesting heterogeneity. For example, France, Germany, and Italy have to this day failed to reach their price-adjusted 1990-level of defence spending – while their social spending grew by around 2% annually. We also show growth rates for those countries that have joined NATO after 1990 in the Appendix.

Social spending is today by far the largest spending position for governments in Europe. On average, half of the government budget in Europe is going to social spending such as subsidies for the pension systems or redistribution to low-income households and the unemployed. While this clearly serves an important purpose, the above analysis shows that European countries have expanded their welfare states considerably without achieving sufficient economic growth to sustain it. This explains why the high share of defence spending relative to GDP which was common during the Cold War seems unthinkable today. Figure 11 illustrates the relation between the size of the welfare state and meeting the NATO 2%-target. Of the ten countries with the highest share of social spending relative to GDP, only two meet the NATO 2%-target – one is Greece and the other one is Finland which just joined NATO. The three Baltic states, which combine low public debt ratios with high defence spending, are also among the countries with the lowest social expenditure in Europe. As social spending accounted for between 17% and 32% of GDP (or 35% to 59% of government budgets) in 2022, it leaves little fiscal means to address the current economic, environmental, and security challenges. Against this background, governments will likely not be able to avoid implementing some form of fiscal discipline and re-prioritisation. After all, deterring war and being capable of protecting one's citizens from external aggressors as well as preventing the environment from becoming increasingly hostile to human life are inherently social acts. However, history has shown that European governments have been much better at expanding the welfare state than in halting - not to mention reverting - its expansion.

Figure 11: Relation Between Public Social Spending in 2022 and Defence Spending in 2023



Source: Dorn et al. (2023); NATO (2023a); OECD (2023b); own illustration.

Note: Social spending data for 2023 is not yet available. Values for the United Kingdom are from 2021.

6 Public Support to Pay the Bill for Defence Is Fragile

Surveys show that citizens in Europe are generally aware of the need for higher defence spending, but the same surveys also leave doubts on the willingness to pay the bill. Figure 12 illustrates key insights on the public opinion in Europe. First, on average two-thirds of survey participants believe that more money should be spent on defence in the European Union.¹³ In every single country, more than half of the citizens are aligned with this view (*see red crosses*). Second, public support for an increase in defence spending in one's own country is much lower compared to support for a more broadly defined increase within Europe (*see orange boxes*).¹⁴ Only in four countries does a majority form behind the statement that one's own country should spend more on defence. Third, support for more defence spending has increased strongly since the Russian invasion of Ukraine, but for most countries it has dropped from its peak level in 2022 (*see grey bars*). These results show that citizens believe that Europe is not spending sufficiently on defence. However, the willingness to contribute to an increase in defence spending varies greatly. A first group of countries such as Poland and Finland are not only meeting the NATO 2%-target but have also strongly reacted to Russia's war against Ukraine. In these countries at the Eastern NATO border, there is a clear majority in favour of either increasing or maintaining defence spending at a relatively high level.¹⁵ As long as this continues, they will be able to contribute their fair share to financing Europe's defence. A second group of countries, such as Germany and Sweden, do not yet meet the NATO 2%-target, but a majority of their citizens desire to do so. The public opinion in the third category is not aligned with the NATO agreements though. Countries such as Luxembourg, Italy, and Spain are failing by a large margin to meet the NATO 2%-target and their citizens do not want to change this. One reason might be that these citizens do not feel threatened by Russia's aggression because of their greater geographical distance. Another reason, however, might be that they understand that higher defence spending comes with costs and trade-offs.

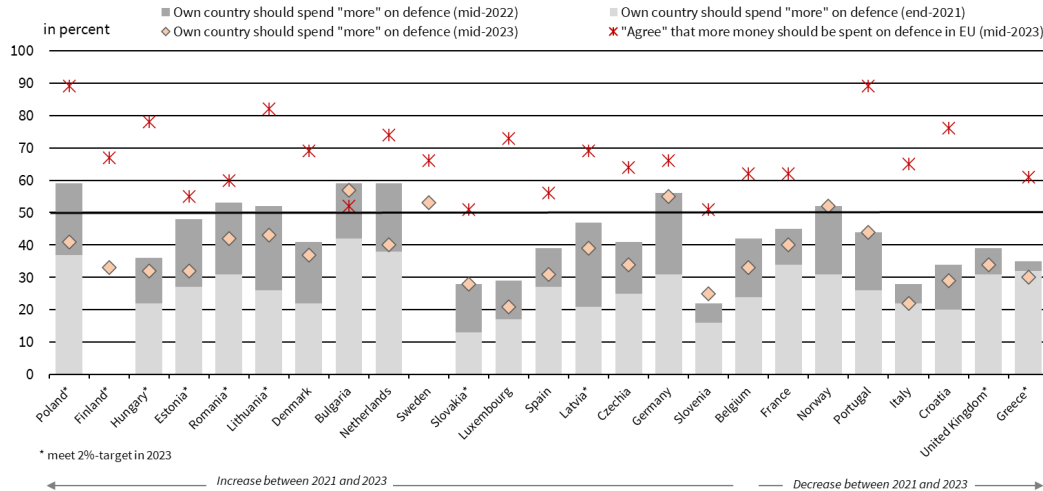
¹³ In the Eurobarometer (2023), survey participants were presented with the statement "*More money should be spent on defence in the EU*" and asked to respond with either (1) totally agree, (2) tend to agree, (3) tend to disagree, (4) totally disagree or (5) don't know. We take answers (1) and (2) as support for higher defence spending.

¹⁴ In the NATO public opinion research (NATO 2023c, 2022, 2021), survey participants were asked "*Which of the following best reflects your view on your nation's defence spending?*" and could choose between (1) "Country" should spend more on defence, (2) "Country" should maintain current spending levels, (3) "Country" should spend less on defence or (4) don't know. We take answer (1) as support for higher defence spending. Differences to the Eurobarometer survey may partially be explained by the fact that the Eurobarometer survey did not provide an answer choice for constant defence spending, so that participants had to decide on either more or less.

¹⁵ Figure 12 does not show the share of survey participants in favour of maintaining defence spending at the current level. The results for each country can be found in NATO (2023c; 2022; 2021).

Figure 12: Popular Support for Higher Defence spending – For Own Country and in General in the European Union

Ordered by change in defence spending relative to GDP between 2021 and 2023.



Source: NATO (2023a; 2023c; 2022; 2021); Eurobarometer (2023); own illustration.

Note: Finland and Sweden are only included in the NATO survey since 2023. Norway and the United Kingdom are not included in the Eurobarometer survey.

As a case study of whether public support for higher defence spending also translates into a willingness to bear the costs, we investigate opinion polls from Germany. It is the country with the largest annual peace dividend since 1991 and the one with the largest shift in public opinion after the Russian invasion of Ukraine. After the Cold War, nearly 70% of the Germans surveyed were in favour of reducing defence spending and in the following decades a majority wanted defence spending to remain at a low level (Graf et al., 2022). Since 2015, in most years a majority expressed support for higher defence spending - increasing to 59% in 2022 (Graf, 2023). However, in the same survey a majority also supported higher funding for seven out of ten other policy areas, indicating a trade-off. Surveyed in mid-2023, German economics professors also supported to spend more on defence and a large majority of 71% was in favour of consolidating public budgets, i.e., saving in other areas of the government budget to finance defence spending (Gründler et al., 2023). Only 33% supported higher taxes and 16% supported more debt-financed defence spending. While the economists were more restrictive with their additional spending wishes and only selected two out of 15 other ministries for budget increases, no majority was in favour of reducing the budget of any ministry. The largest share was 40% of economists who were in favour of budget cuts for the labour and social ministry, i.e. social spending. Both surveys, among households and among economists, show that in a context of limited government resources, it is not straightforward to implement higher defence spending – even if the population is largely in favour of such a move. This support may decrease when the costs and trade-offs of higher defence spending become clear. This may also explain why the German

government started its move towards the NATO 2%-target with a debt-funded 100 billion Euro special fund, which does not come with immediate trade-offs. A survey experiment by Lohse et al. (2023), however, found that German households are willing to pay, for example, an additional 130 Euro per year to finance a European sky shield.

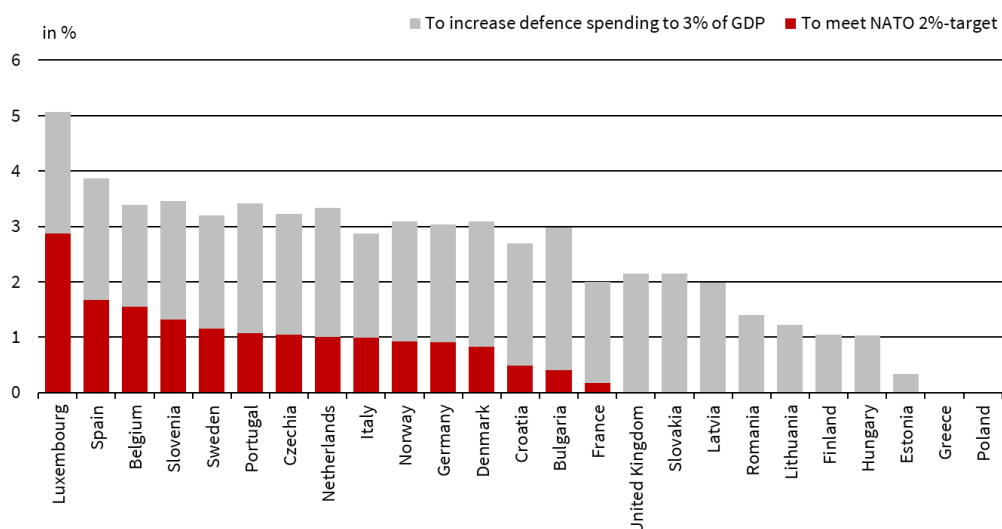
7 Policy Conclusions

2024 will be an important year for Europe's future security architecture. The war in Ukraine continues and Russia's threat to NATO members may even increase depending on the developments on the Ukrainian battlefield. At the same time, the next president of the United States may increase the pressure on Europe to spend more on defence and may possibly reduce or stop military aid to Ukraine. This has implications on defence budgets for 2024 and beyond. To secure peace in an increasingly challenging geopolitical environment, defence spending will likely have to remain at a higher level for some time. Europe needs to find financially sound ways to achieve this and to gain public support, given the scarce financial resources and the trade-offs in spending. Governments have lived well from the peace dividend since the end of the Cold War, but they failed to plan for the time when the peace dividend comes to an end. Now, they are not prepared to easily increase defence spending, and many are severely struggling to do so.

In this report, we have shown that both public debt ratios and overall tax burdens are already very high in many European countries. Therefore, raising the overall debt level or the tax burden would likely exert high economic costs in the medium term. An alternative for financing higher defence spending is to shift money in the governmental budgets from other expenditure categories towards defence. For example, governments could save resources through a rigorous spending review and reallocate the peace dividend back from social spending towards defence spending. Since national budgets are large, small savings are already sufficient to pay for an increase in defence. Figure 13 shows that for most countries, saving less than one percent of general government spending in other policy areas and using these funds for defence would allow to meet the NATO 2%-target.¹⁶ The reason is that for those countries not meeting the NATO 2%-target more than 95% of government spending goes to non-defence policy areas.

¹⁶ The analysis assumes that the overall government budget remains constant. As economic growth would increase the government budget and reduce some spending categories, the required savings could be even smaller. The analysis does not consider the fact that many European countries suffer from chronic underinvestment in economic development and competitiveness. In order to generate economic growth, additional resources will likely be needed.

Figure 13: Size of Consolidation of Public Finances to Finance Higher Defence Spending
Relative to current government spending in other policy areas than defence.



Source: AMECO (2023); IMF (2023); NATO (2023a); own calculation.

We used the NATO 2%-target as benchmark for discussing sufficient defence spending, because NATO members agreed to spend at least two percent of GDP on defence to make a fair contribution towards the joint defence capabilities. This benchmark is input-oriented and implicitly assumes that higher spending increases defence capabilities as output.¹⁷ Defence capabilities, however, could also be increased by more efficiency, for example in procurement of new equipment or via a better coordination and integration among the European partners. While this seems to be an important step forward, it will take time to bear fruit. Moreover, even using the NATO 2%-target as benchmark does not guarantee that defence capabilities are built up sufficiently fast or strongly enough to deter war. If the European security situation worsens and higher defence spending such as three percent of GDP or more becomes necessary, European governments would face much stronger trade-offs and pressure to consolidate public finances. This would pose a far more complex challenge for Europe. For most European countries to spend three percent of GDP on defence, they would have to generate savings in the remaining government portfolio of around three percent (see Figure 13).

For European NATO countries to be capable of providing sufficient fiscal resources for defence spending over an extended period, four policy recommendations can serve as a guideline:

¹⁷ Within the NATO Defence Planning Process (NDPP), NATO also sets and tracks capability targets for individual members. This is secret and does, hence, not allow for an outside assessment.

1 – Implement growth-friendly policies: Europe's economic competitiveness and growth potentials are under severe pressure. Low or negative growth is likely to increase social spending, for example through unemployment benefits. In contrast, higher growth generates additional tax revenue. The stronger the European economies grow, the more resources they will have available to ease the trade-off between defence spending and other spending categories. The priority of European governments should be to generate an environment conducive to improving its global competitiveness. This means implementing growth-friendly policies and avoiding policies that harm economic performance.

2 – Keep solid public finances: High public debt ratios put a burden on government budgets and restrict future fiscal space. Public debt is positively associated with social expenditure (Haelg et al., 2022). Public debt also tends to crowd out defence spending, a fact well illustrated by the cuts on defence spending in the context of the financial and the sovereign debt crises after 2008. As a consequence of increased public debt ratios and weakened fiscal rules, high spending on interest rates may consume funds which could otherwise be used for defence spending.¹⁸ Sustainable public finances may, hence, help to raise defence spending.

3 – Be more restrictive on consumption spending: Europe needs to invest in a green, digital, and competitive economy, as well as on public goods such as infrastructure and security. To provide the required financial resources, governments will need to consolidate their public finances by identifying policies which are inefficient and do not fulfil important government functions. Social spending, in particular, has outgrown the economy and is beginning to prevent governments from performing core functions (Schuknecht and Zemanek, 2021). However, to prevent a *guns-versus-butter debate* governments may start, for example, by not passing new social policies nor inefficient subsidies, or by adjusting mechanisms for automatic increases in social benefits. The costs arising from the demographic transition will restrict fiscal space in many European countries further. Europe's governments urgently need compelling and resolute policy measures to reduce the budget costs of ageing societies, for example in pension systems. Cutting spending growth on consumptive policies is a precondition for having the fiscal space required for defence spending in future.

4 – Strengthen defence as a European public good: Europe should test how to better cooperate on improving defence as a European public good (Fuest and Pisani-Ferry, 2019). This may include steps towards an integration of European armies to increase efficiencies as well as a cooperation in equipment purchases. Reallocating resources from within the EU budget for example to the European Defence Fund would send a

¹⁸ Fiscal rules are successful in decreasing debt and risk premia on governments bonds, increase economic growth, and prevent political budget cycles (Potrafke, 2023).

Policy Conclusions

strong signal towards both Russia and Europe's defence industry. Such reallocation would be felt less directly by citizens in comparison to one at the national level, and it would underline Europe's willingness to adjust to a new security environment. As a side effect, these measures would strengthen one pillar of European cooperation that enjoys strong public support.

List of Figures

Figure 1: Annualised Average Peace Dividend and Equipment Investment Deficit.....	8
Figure 2: Defence Spending Relative to GDP by Geography	9
Figure 3: State of European Public Finances Relative to Maastricht Criteria	11
Figure 4: Cost of Financing Defence Spending through Debt.....	12
Figure 5: Interest Burden Arising from Government Debt	13
Figure 6: Development of Tax Revenue for OECD Countries Relative to GDP	15
Figure 7: Development of Total Government	16
Figure 8: Relation between Tax Burden and Defence Spending in Europe	17
Figure 9: Importance of Defence Spending in Government Budgets.....	18
Figure 10: Development of GDP and Spending Categories for European NATO.....	19
Figure 11: Relation Between Public Social Spending and Defence Spending	20
Figure 12: Popular Support for Higher Defence spending.....	22
Figure 13: Size of Consolidation of Public Finances to Finance Higher Defence	24

Appendix

Table 1: Summary by Country

	Defence spending (% of GDP)	Support >defence (in %)	Public debt (% of GDP)	Tax burden (% of GDP)	Gov. budget (% of GDP)	Social spending (% of budget)	Defence spending (% of budget)
Belgium	1.1	33	106	46	56	54	2.1
Bulgaria	1.8	57	24	30	41	-	4.5
Croatia	1.8	29	61	37	47	-	3.8
Czechia	1.5	34	45	35	47	49	3.3
Denmark	1.7	37	30	44	46	58	3.6
Estonia	2.7	32	19	34	43	43	6.7
Finland	2.5	33	74	42	55	54	4.5
France	1.9	40	110	47	57	54	3.3
Germany	1.6	55	65	41	49	54	3.2
Greece	3.0	30	161	42	50	46	6.0
Hungary	2.4	32	70	35	50	35	5.0
Italy	1.5	22	140	43	54	54	2.7
Latvia	2.3	39	42	31	40	49	5.7
Lithuania	2.5	43	37	32	38	55	6.7
Luxemb.	0.7	21	27	41	46	50	1.5
Nether.	1.7	40	47	39	44	40	3.5
Norway	1.7	52	36	48	48	53	3.4
Poland	3.9	41	51	36	45	52	8.3
Portugal	1.5	44	103	37	44	56	3.5
Romania	2.4	42	48	27	40	-	6.2
Slovakia	2.0	28	57	35	48	45	4.2
Slovenia	1.4	25	69	37	48	48	2.9
Spain	1.3	31	108	38	47	59	2.7
Sweden	1.4	53	30	42	50	50	2.9
UK	2.1	34	97	39	47	48	4.4
Year	2023	2023	2023	2023	2023	2022	2023
Source	NATO	NATO	AMECO	AMECO	AMECO	OECD, AMECO	NATO, AMECO

Source: AMECO (2023); Dorn et al. (2023); IMF (2023); NATO (2023a; 2023c); OECD (2023b); own calculation.

Note: In the row “Support >defence” statistics for countries already meeting the NATO 2%-target are given in grey.

Table 2: EU Debt Rules and NATO Defence Expenditure by Country

	Maastricht Criteria (all in % of GDP)				NATO (in % of GDP)	Meet both 2023
	Deficit 2023	Debt 2023	Deficit 2024	Debt 2024	Def. Spend. 2023	
Belgium	-4.9	106	-4.9	106	1.1	X
Bulgaria	-3.0	24	-3.0	24	1.8	X
Croatia	-0.1	61	-1.8	59	1.8	X
Czechia	-3.8	45	-2.4	46	1.5	X
Denmark	2.6	30	1.8	28	1.7	X
Estonia	-2.9	19	-2.4	21	2.7	Yes
Finland	-2.4	74	-3.2	77	2.5	X
France	-4.8	110	-4.4	110	1.9	X
Germany	-2.2	65	-1.6	64	1.6	X
Greece	-2.3	161	-0.9	152	3.0	X
Hungary	-5.8	70	-4.3	72	2.4	X
Italy	-5.3	140	-4.4	141	1.5	X
Latvia	-3.2	42	-3.1	42	2.3	X
Lithuania	-1.6	37	-2.3	38	2.5	Yes
Luxembourg	-1.9	27	-2.1	29	0.7	X
Netherlands	-0.5	47	-1.8	47	1.7	X
Norway	21.5	36	20.4	35	1.7	X
Poland	-5.8	51	-4.6	54	3.9	X
Portugal	0.8	103	0.1	100	1.5	X
Romania	-6.3	48	-5.3	49	2.4	X
Slovakia	-5.7	57	-6.5	60	2.0	X
Slovenia	-3.7	69	-3.3	68	1.4	X
Spain	-4.1	108	-3.2	107	1.3	X
Sweden	-0.2	30	-0.7	30	1.4	X
UK	-3.7	97	-2.9	97	2.1	X

Source: AMECO (2023); Dorn et al. (2023); NATO (2023a).

Note: The SGP will only be active from 2024 again. Norway and the United Kingdom are not members of the EU and do not have to follow EU debt rules. Values for 2024 are a forecast.

Table 3: Development of GDP, General Government, Defence, Social, Education, and Investment Spending since 1990

Price adjusted - Compound Annual Growth Rate (CAGR)

	Start analysis	GDP	Govern-ment	Defence	Social	Educa-tion	Invest-ment
Old members							
Belgium	1990	1.6%	1.7%	-0.5%	2.1%	1.8%	2.2%
Denmark	1990	1.8%	1.4%	1.4%	2.5%	1.7%	2.3%
France	1990	1.1%	1.5%	-0.6%	2.0%	0.9%	0.9%
Germany	1990	1.3%	1.1%	-0.3%	2.1%	1.4%	0.9%
Greece	1990	0.7%	1.5%	-0.1%	2.0%	0.8%	0.7%
Italy	1990	0.5%	0.5%	-0.4%	1.8%	0.3%	0.8%
Luxembourg	1990	4.0%	4.2%	3.7%	4.5%	4.2%	4.3%
Netherlands	1990	1.8%	1.6%	0.6%	0.9%	1.8%	1.2%
Norway	1990	3.9%	3.3%	2.0%	4.0%	2.8%	4.0%
Portugal	1990	1.7%	1.9%	0.4%	4.0%	0.9%	0.0%
Spain	1990	1.8%	2.2%	0.8%	2.9%	1.9%	0.1%
United Kingdom	1990	1.6%	2.3%	0.1%	3.0%	2.7%	3.4%
New members							
Bulgaria	2004	4.3%	4.8%	3.0%	-	4.8%	3.8%
Croatia	2009	1.3%	0.7%	2.1%	-	0.8%	0.1%
Czechia	1999	1.8%	2.3%	1.1%	3.0%	3.1%	3.0%
Estonia	2004	2.9%	4.1%	6.5%	4.8%	3.5%	4.3%
Hungary	1999	2.6%	2.5%	4.5%	2.2%	2.8%	4.3%
Latvia	2004	2.8%	3.8%	6.2%	5.4%	3.0%	4.7%
Lithuania	2004	3.3%	4.3%	6.8%	5.9%	1.8%	3.1%
Poland	1999	3.5%	3.9%	6.6%	3.9%	2.9%	5.1%
Romania	2004	5.2%	5.7%	6.3%	-	4.8%	8.2%
Slovakia	2004	2.2%	3.5%	3.3%	3.3%	3.3%	4.7%
Slovenia	2004	2.0%	2.1%	1.8%	2.3%	1.4%	4.3%
Data availability		All	All	All	1990-2022	1995-2021	1995-2023
Source		IMF	IMF	NATO	OECD	OECD	AMECO

Source: AMECO (2023), IMF (2023), NATO (2023a), OECD (2023b, 2023c), own calculation.

Note: Due to data availability, the growth of government expenditure is calculated for Germany from 1991 and for Luxembourg from 1995. UK social expenditure is only until 2021. No data on social expenditure is available for Bulgaria, Croatia, and Romania. Finland and Sweden are not included, as they either joined NATO only within the last year or are not yet a member. Comparison between old and new members may not be very useful, since the periods for which the growth rates are estimated differ: the base year for old members is 1990, while for the new members it is between 1999 and 2009. As AMECO government expenditure is not complete in the 1990s, we employ IMF data here, in contrast to the other analyses.

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