

Defense Spending for Europe's Security – How Much Is Enough?

Florian Dorn

Key Messages

- Defense spending above the NATO target of 2% of GDP would be necessary for Europe to be able to provide sufficient security and to defend itself without the protective umbrella of the US.
- European countries must increase their efforts to catch up with an adequate defense capability, as defense budgets and military investments have been too low for years.
- Many European countries must compensate for higher real military costs – including wages for soldiers and costs for military equipment – than, for example, in Russia or China.
- More efficient and integrated military structures need to be established in Europe in the long term. The current geopolitical situation immediately requires higher defense spending.
- European governments need a credible plan to sustainably increase defense capabilities without jeopardizing budgetary stability and economic competitiveness.



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European states have enjoyed three decades of peace and relative external security and have cut their expenditure on defense for many years. Russia's attack on Ukraine, however, has increased the geopolitical risks and called Europe for a reassessment of its own security and defense capabilities. Nevertheless, European NATO members still rely on security guarantees from the United States and have so far been unwilling and unable to provide Ukraine with sufficient military support or even to achieve capabilities to defend Europe on their own. The hesitant prioritization of defense spending of European governments seems even more naïve considering the current debate about concerns of changing relationships with the US (see Fuest, 2024). The leading superpower may be more protectionist and less supportive under the possible leadership of Donald Trump and his prospective Vice President J. D. Vance, both emphasizing that several NATO members are free riders at the cost of US citizens and that Europe must be (more) responsible for its own security. Regardless of a second Trump presidency, the US – across party lines – expects Europe to spend more on its own security. The US contributes more than two-thirds of the overall defense spending within NATO, whereas defense capabilities of the European members would quickly be depleted without US support. The fact that Europe's security depends to an extent on the outcome of the US presidential election demonstrates the degree to which Europeans have neglected their own security interests – and this despite more than two years of Russia's war in Ukraine and aggressive threats of the nuclear power against Europe. Europe must urgently address the question of how to reduce its reliance on the US. Ultimately, it will only move forward by developing more autonomy and a credible program for stronger European defense capabilities. But what would it take to make Europe more self-sufficient? How much should Europe spend on defense for sufficient deterrence and external security? And how can these targets be achieved?

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Is Meeting the NATO Targets Enough?

A benchmark in the debate on defense efforts is the so-called NATO 2% target, according to which a minimum of 2% of GDP was to be spent on defense. NATO members first agreed on the 2% target in 2006 and formally renewed it in 2014² to ensure a fair contribution to maintaining the alliance's military readiness. Ten years later, European NATO members are expected to exceed the 2% target of their combined GDP for the first time, whereas the largest increases in defense expenditures occurred on NATO's Eastern flank after Russia's invasion of Ukraine (Dorn et al., 2023; NATO, 2024). However, there are several reasons to believe that meeting 2% of GDP for defense might not be enough to achieve sufficient defense capabilities in Europe.

Europe's Defense Spending Was Well Above 3% During the Cold War Era

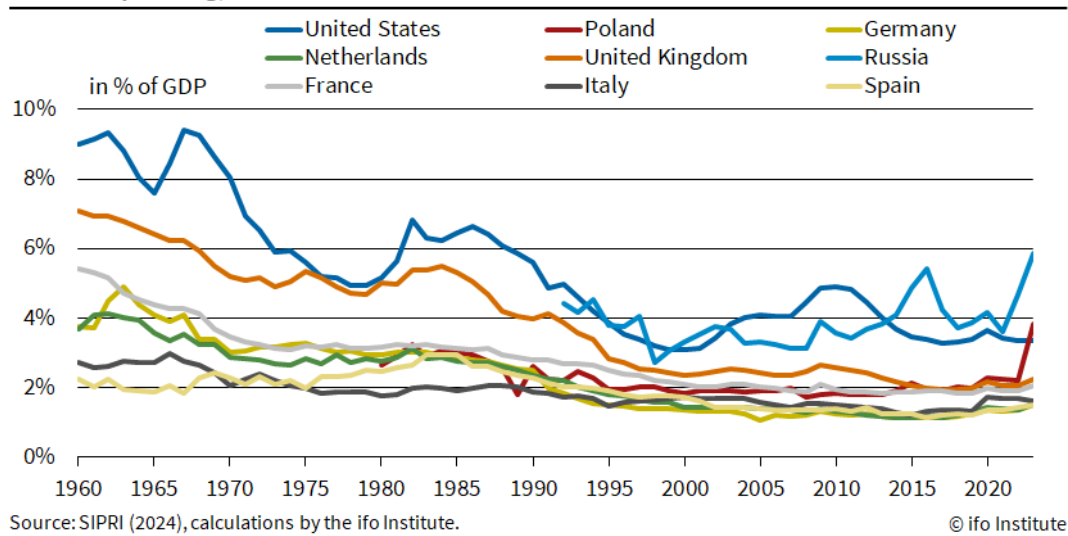
The official commitment to the 2% target was taken in response to Russia's illegal annexation of Crimea a decade ago, but Europe has now been confronted with direct aggression from Russia and a real war on its doorstep for two years, threatening its security.³ When Western Europe last faced an external threat from the Soviet Union and the Eastern bloc during the Cold War era, most of the NATO countries were used to spending much more than 2% of their GDP on defense (Figure 1).⁴ Germany, France and the Netherlands, for example, spent around 3% of GDP in the 1970s/1980s, while defense spending was around 5% in the UK and 6% of GDP in the US. In the decade before, which included high geopolitical risks like the Cuba missile crisis and the construction of the inner German wall, the share of defense expenditure was even higher. However, the US geopolitical interests were more concentrated on defending Europe during the Cold War era, whereas they have been shifting towards the Indo-Pacific for some time now. This means a call on European countries to do more, not less, compared to the Cold War years, in order to quickly build up sufficient defense capabilities.

² NATO first agreed on the 2% target in 2006, and it was renewed official NATO Summit Declarations in 2014 and 2023.

³ Moreover, for achieving the NATO target, military aid for Ukraine and related national expenditure by other resorts are also included by many European governments. It is questionable whether these policies increase Europe's own military readiness, and whether the NATO targets are still sufficient to afford external deterrence and security.

⁴ At the end of the Cold War, NATO defense spending even exceeded 4% of GDP (NATO, 2023a).

Figure 1:
Defense spending, 1960-2023



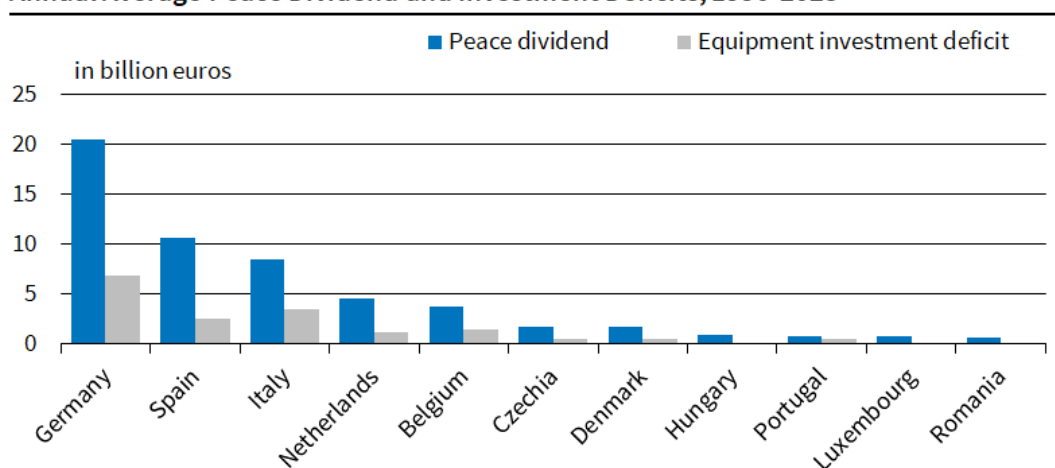
How much Europeans would have to spend on their own defense capabilities to ensure sufficient deterrence depends above all on the scale of the threat – including the military capabilities of a potential aggressor. Figure 1 shows that Russia maintained its defense spending at an average level of around 3.5% after the Cold War but has increased it to over 4% since the annexation of Crimea in 2014, and has surpassed the US ever since. After the invasion of Ukraine, however, Russia has converted large parts of its economy towards a war economy and raised military spending to around 6% in 2023 and 2024. Some experts report that if Russia continues these military efforts, its army might be able to test the European alliance and Article 5 of the NATO treaty within a few years (see, for example, Mölling & Schütz, 2023; Bronk, 2023). If European governments want to be prepared for such a nightmare scenario, they must act quickly and prioritize their budgets and efforts accordingly.

Europe Must Compensate for Large Deficits in Military Investment

After the fall of the Berlin Wall, the threat of war on Europe’s eastern border ended and defense spending fell significantly in all countries (Figure 1). Many European NATO members reduced their armies and defense investments, and consequently the number of soldiers, ammunition stocks and heavy equipment (see Dorn et al., 2022a). Some countries, for example France, the UK and Poland, continued to spend around 2% of their GDP for defense activities (Figure 1). Other countries have reduced their annual expenditure to a very low level of 1.1%-1.5% of GDP – including Germany, Italy, Spain, Belgium and the Netherlands. As a result, national governments generated an annual “peace dividend” for other spending categories, primarily to finance and expand their

welfare states (see Dorn et al., 2024). Figure 2 shows the average annual peace dividend in 2023 prices, using 2% of GDP as a benchmark for sufficient defense spending to maintain military capabilities during peacetime. The national government of Germany, for example, had more than an annual €20 billion higher budget for other spending between 1990 and 2023. In Spain and Italy, the annual peace dividend was more than €10 billion and €8 billion respectively.

Figure 2:
Annual Average Peace Dividend and Investment Deficits, 1990-2023^a



^a Calculated as the gap to NATO targets: 2% of GDP for defense spending and 20% for equipment investment as a share of defense spending. Price adjusted to 2023 prices.
Source: Dorn et al. (2024).

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Some may argue that lower defense spending seems justifiable in peacetime and the absence of a risk of war, because governments do not need to maintain a large army and a large stock of weapons. The lack of investment in defense capabilities, however, affects the availability and modernization of operational weapons, ammunition and heavy military equipment such as combat aircraft, tanks and artillery. If the external security situation changes, such as after Russia’s invasion of Ukraine, a shortage of operational equipment is problematic, as these shortfalls cannot simply be compensated at short notice.

In 2014, the NATO members also agreed on a 20% rule, supposing that at least one-fifth of the targeted 2% of GDP defense expenditures should be devoted to defense investments, ensuring that the armies are equipped with sufficient ammunition and modern, major military equipment.⁵ If this spending rule had been followed for the past three decades, Spain would have additionally invested more than €80 billion in their military equipment, Italy almost €120 billion, and Germany almost €230 billion in 2023 prices (Figure 2). If European NATO countries are willing to quickly increase their

⁵ This includes associated research and development, perceived as a crucial indicator for the scale and pace of modernization.

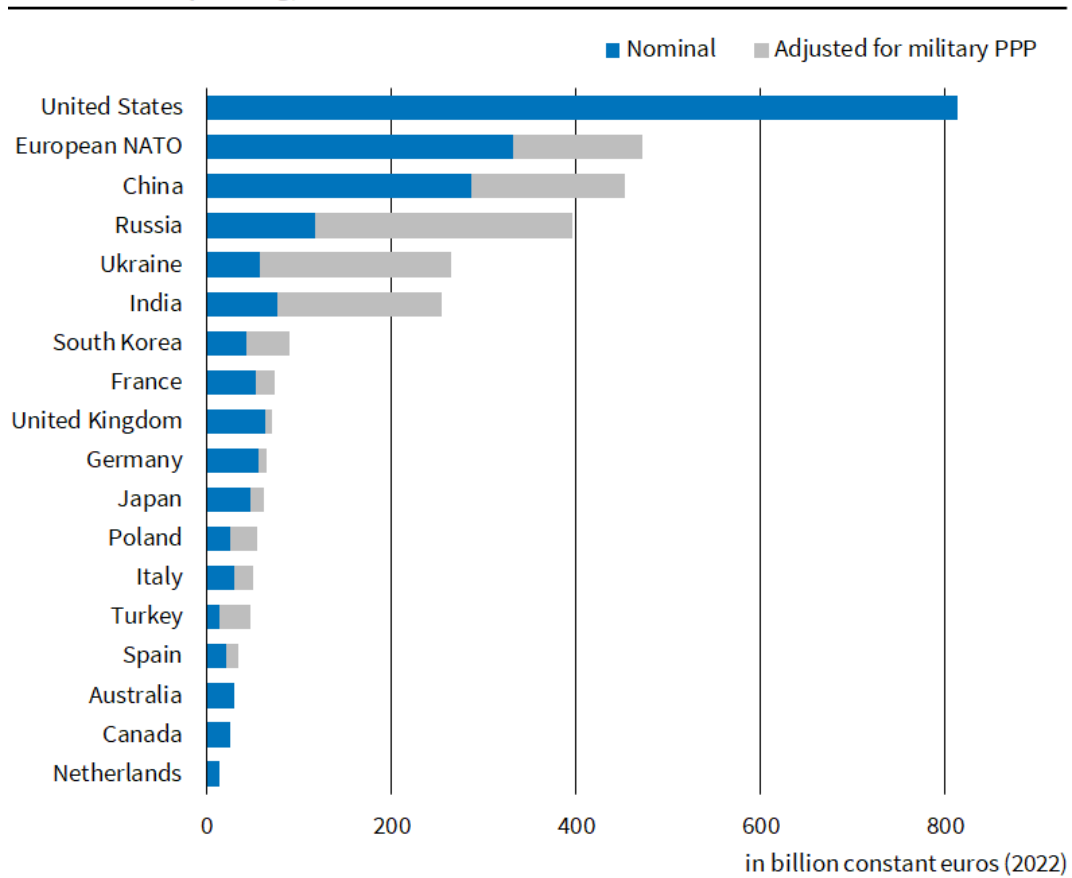
defense capabilities, many of them would need to invest much more than 2% of GDP to compensate the large investment deficits of the last decades.

Europe Must Compensate for Higher Real Military Costs

International comparisons of defense spending are necessary for monitoring security risks, assessing own defense capabilities and planning defense budgets. Although defense spending as a share of GDP is a good indicator to compare the efforts and priorities of countries, absolute figures depend on the size of the economies. Figure 3 shows absolute defense spending by country in 2023. The US is by far the country with the highest military expenditure in the world. European NATO countries⁶ are in second place, ahead of China and Russia. Europe even spends more than twice as much as Russia on defense, although Russia has been catching up in recent years. However, such comparisons are misleading as they do not consider different input prices of military personnel and equipment. Wages of soldiers and maintenance costs for military equipment in Russia are significantly lower than in Western European countries or the US (see Robertson, 2021). That is, Russia can afford more soldiers and military equipment with the same amount of money as its Western counterparts. When considering military purchasing power parities (PPP) of countries in the figures, the gap between the European NATO countries and Russia or China is almost non-existent (Figure 3). Single European countries fall completely behind Russia when military costs are considered. Russia has almost five times the military purchasing power of the French defense spending and six times that of Germany or the UK. While defense spending only reflects the effort to produce defense capabilities, the figures illustrate how the Europeans remain dependent on the security guarantees of their US ally to ensure sufficient deterrence against a potential Russian aggressor.

⁶ Including the new members Finland and Sweden; excluding the USA, Canada and Turkey.

Figure 3:
Real Defense Spending, 2023



^a Defense spending in constant Euro (2022); adjusted for military purchasing power parities, to reflect cost and wages differences across countries as of 2021. European NATO without Turkey, including Sweden and Finland.

Sources: SIPRI (2024), Roberston (2021), ECB, calculations by the ifo Institute.

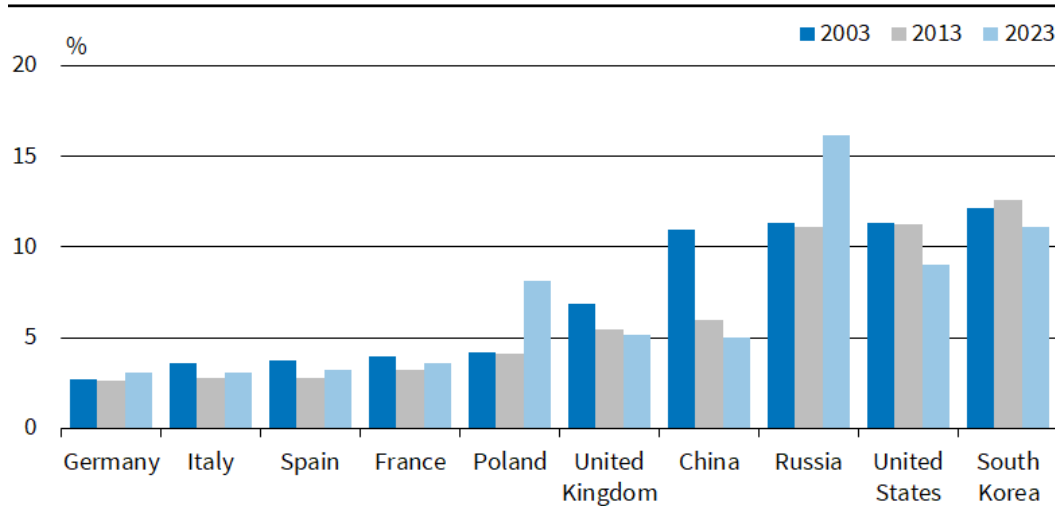
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Security Is a Question of Budget Priorities

The war in Ukraine has reminded Western societies of the horrors of war and that Europe must spend more on defense to ensure its own security and deterrence. But this would also require a rethinking of European budgetary policy. Figure 4 shows the different prioritization of defense in the government budgets for selected countries between 2003 and 2023. South Korea and the US, both prepared for the constant risk of war, are used to spending more than 10% of their budgets to maintain their own defense capabilities. Russia has also earmarked more than 10% of its national budget for military spending for the past 20 years and has increased this share to almost 16% by 2023 to finance the recent war in Ukraine. In Europe, however, national governments show varying willingness to adjust their budgets as response to the new threat at the Eastern flank. Some have assigned defense a much higher priority in their budgets. Poland, for example, quickly shifted its budget priorities to increase the country's

defense capabilities, from 4% in 2013 and 2003 to 8% in 2023. Others, in particular Western European governments, made very little significant changes in their budgets and did not cut other political spending priorities in favor of stronger security.

Figure 4:
Defense as Share of Government Spending, 2003–2023



Source: SIPRI (2024).

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Security is a fundamental responsibility of states, but Europeans must remember this public good does not come for free. If Europeans are concerned about their own security and a lack of defense capabilities, the public debate must address the costs of permanent higher defense spending and the trade-offs arising from leaving the era of the peace dividend behind. However, the fiscal space of several European governments is limited due to high levels of debt and social spending, and low economic growth. Some politicians are calling for higher taxes or the reduction or abolition of debt rules to avoid unpleasant decisions associated with limiting other political spending programs.

Tax increases are also likely to be difficult. The tax burden in most EU countries is already significantly higher than in other OECD countries, so that additional burdens would further impair the competitiveness of European economies. Financing higher defense spending permanently by debt, however, is fiscally not sustainable and would shift the fiscal burden of today's security to future generations.

European governments need a credible plan for how to permanently increase defense spending towards a higher level without jeopardizing fiscal stability and economic competitiveness (Dorn et al., 2024). Clearly, there are trade-offs in budgetary policies, as many European countries must invest to strengthen the competitiveness of their economies and for decarbonization. Therefore, in most European countries a sustainable strengthening of the defense budget can only be achieved through a

credible and permanent increase in the government budget over the next years, which is best done by limiting the growth of consumption spending (as discussed in detail in Dorn et al., 2024). The peace dividend has been used to expand social spending over the past 30 years. Reversing this will face considerable political resistance. The avoidance of excessive social spending cuts may be necessary for preserving social peace and an agreement on more restrictive spending policies. However, new fiscal space must be created and used for increasing defense spending.

Some countries initiate one-off debt programs to immediately increase defense capabilities and compensate for past investment deficits. This would allow them to gradually increase defense spending in the government budget over the coming years. Germany, for example, tried to make a pivot (*Zeitenwende*) in 2022 and increased their defense capabilities by a debt-financed program of an additional €100 billion (*Sondervermögen Bundeswehr*). In theory, this sum could make up for the deficits in investment in military equipment over the past decade (see Dorn et al., 2022b). But almost half of the €100 billion will not be used for new investments in military equipment (Dorn & Schlepper, 2023). Moreover, the investments are starting slowly and will be used over the coming years without any significant increases of inflation-adjusted defense spending in the government budget. The special fund therefore only serves to close the gap of NATO's 2% target instead of making up for the investment deficits of the past decades. Contrarily, there are almost no efforts by the German government to meet the 2% target without debt. When the debt program comes to an end, the next one will be called by some politicians for sure. This German example shows that a turnaround in budgetary policy has barely arrived in many (Western) European countries, despite the increased geopolitical risks.

In addition, due to the lack of availability of state-of-the-art weapon systems in Europe, many European countries bought new weapon systems outside of Europe (see Maulny, 2023; Schlepper, 2024).⁷ While this makes sense in the short term for the efficient use of resources and faster availability of state-of-the-art systems in times of crisis, it increases geopolitical dependencies in security issues and defense technologies. Moreover, such procurement strategies make it more difficult to maintain and develop the skills of the European defense industry. To change the game, European defense industry would also need a credible budget plan for permanently higher defense spending and corresponding long-term investment commitments of European governments (see Marsh et al., 2024). This way, the European defense industry will have more planning security and incentives for investments in the expansion of their European production capacities, as well as in the research and development of new products and modern defense systems. In addition, bureaucracy must be reduced in many European states to

⁷ Moreover, buying different systems from abroad makes it even more problematic for European armies to communicate and cooperate.

accelerate procurement and approval processes in times of geopolitical risks and threats to external security.

More Efficiency Through Better European Cooperation

Defense spending reflects the input side and shows whether countries provide sufficient resources to increase defense capabilities. However, spending figures do not show the output, i.e. the effectiveness of defense capabilities (see Rasmussen, 2024). Moreover, raising defense budgets does not guarantee that funds are spent in the most efficient way. Defense capabilities, however, could also be increased by more efficiency, for example in procurement of new equipment. Kirsten (2023), for example, suggests that Germany is 40% less efficient in the use of its defense budget than the average of its European peers. While calculating inefficiencies is based on many assumptions and must be evaluated, efficiency in procurement and the use of funds can clearly be improved in many European countries. The identification of high inefficiencies in the use of defense resources rather suggests that even more of the budget would need to be used to achieve the required defense capabilities to compensate for inefficiencies in the short term.

However, efficiency can also be strengthened via better coordination and integration among the European partners. While it will take some time to bear fruit, this seems to be an important step forward. Although it is not realistic to think about abandoning national armies soon, better coordination of specializations between national armies could strengthen the comparative advantages of different units. Furthermore, European partners also have great potential to raise efficiency via joint European procurement and R&D programs, in which national and political interests should be avoided. The European defense industry is widely fragmented along national borders and uses a variety of defense systems, which are rarely compatible with each other or work in integrated systems (Schlepper, 2024). Compared to the US, European countries spend less on defense but have five times as many defense systems as the US and many more defense companies (Chinn et al., 2024).⁸ As a result, leading European defense companies generate on average just 30% of the sales of their American competitors. While the American market is significantly larger, the fragmented European market means that economies of scale cannot be leveraged, and defense systems can only be produced in smaller quantities at high unit prices. Better cooperation among European partners in the development and purchase of the next generation of military equipment and of modern and integrated defense systems, such as the European Sky Shield

⁸ In Europe, for example, 19 different types of main battle tanks are in use, compared to just one in the USA (Chinn et al. 2024).

Policy Conclusions

Initiative, increase efficiency as well as common defense capabilities as a European public good (see Fuest & Pisani-Ferry, 2019; Steinbach & Wolff, 2024).

Finally, Europe needs to reorganize its innovation policy in the direction of a European Defense Advanced Research Projects Agency to strengthen breakthrough innovations (see Dietrich et al., 2024; Fuest et al., 2024). That way, R&D in defense and dual-use innovations should get easier access to research funding to gain more technological autonomy in defense in Europe.

Policy Conclusions

European countries must improve their defense capabilities. The accession of Finland and Sweden to NATO was an important step, but much more is needed. Several European NATO members have recently moved towards NATO's 2% target, but there are several reasons to question whether reaching the NATO target for defense spending is sufficient for deterrence.

First, Europeans spent well above 2% of GDP on defense each year during the Cold War era.⁹ That is, many European governments themselves prioritized the maintenance and expansion of defense capabilities in their budgets, even though the US expressed a stronger commitment to defending its allies in democratic Europe at that time. Today, however, many US politicians want Europe to do more for its own security.

Second, it will not be enough to increase defense spending to achieve better military readiness, as intended by NATO's 2% target. Many European countries have been cutting their defense budgets for many years and have hardly invested in ammunition depots and modern military equipment. In order to compensate for these investment deficits, significantly more than the 2% must be spent if Europe want to rapidly improve its own defense capabilities and deterrence capacity.

Third, military costs are much higher for the Europeans than for Russia. This is why Russia alone (without its allies) has lower costs for a large army the likes of all European NATO countries combined.

Finally, NATO (2023b) itself announced that the members "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."

⁹ Today, the NATO states at the Eastern border that are most at risk of being attacked by Russia have higher defence spending than 2% of GDP (SIPRI, 2024). The three Baltic states are aiming for 3% of GDP, and Poland reached 3.8% of GDP in 2023. Other countries that are facing constant security threats have also spent more than 2% of GDP on average on defence over the past ten years, for example: South Korea (2.6%), United States (3.4%) and Israel (5.2%).

Defense spending needs to be increased but this is not yet reflected in the budget priorities of many (Western) European governments. After the end of the Cold War era, many European countries reduced their defense spending and increased social spending. Reversing the peace dividend faces considerable political resistance, but the fiscal space of several European governments is limited due to high levels of debt and social spending, and low economic growth. European governments need a credible plan to permanently increase defense spending towards a higher level without jeopardizing fiscal stability and economic competitiveness (Dorn et al., 2024). Whether Europe will get more self-sufficient and less reliant on the US ultimately depends on whether it prioritizes a sufficient defense budget. Defense capabilities must also be increased by more efficiency. That said, the EU's military weakness is only partly due to a lack of defense spending; it is also a consequence of the fragmentation of Europe's armed forces and defense industries. Europe's security can also be strengthened by a better and more efficient integration among European partners and a better and closer cooperation in R&D and the procurement of integrated European defense systems.

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