Germany's New Constitutional Rules on Public Debt

An Analysis of Debt Sustainability and Intergenerational Fairness

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Abstract

This article analyzes the new exceptions to the previous debt rule (Articles 109 and 115 of the German Basic Law) with regard to the normative principles of (debt) sustainability and intergenerational fairness. Sustainability requires that the current level of debt be backed by the present value of future primary surpluses, while intergenerational fairness requires that the amount of net borrowing is limited by the amount of net investment (golden rule of investment). We examine and evaluate the defense exception, the special fund (SF) Infrastructure and Climate Protection as well as the additional deficit leeway for the German states with regard to their justification and design on the basis of these standards. We also take a brief look at possible multiplier effects and inflationary effects. Finally, from an EU perspective, we take a look at the planned European rearmament program ReArm Europe.

Keywords: debt brake, special funds, fiscal pact, ReArm Europe, intergenerational fairness, debt sustainability

JEL classification: H54, H56, H69

1. Introduction

With wise foresight, Odysseus had himself tied to the mast of his sailing ship. He did not want to succumb to the seductive song of the sirens and run aground on a reef. Similarly, the German 'debt brake' embedded in the German constitution since 2009 (Article 109 (3) of the German Basic Law ("Grundgesetz", abbreviated GG)) was also a self-imposed obligation, among other things to ensure a sustainable debt policy and to take intergenerational fairness into account. John Rawls (1921-2002) formulated the underlying problem: How can a social order be agreed so that a fair, efficient and productive system of social cooperation can be maintained in the long term and across generations? (Rawls 2003, p. 88).

Although this abstract norm was not openly questioned by any side when the German parliament discussed the recent debt brake amendments to the Basic Law, it is unclear whether the revised Articles 109 and 115 of the Basic Law - in conjunction with the new Article 143h of the Basic Law - take sufficient account of it. This is because the focus of the amendment to the Basic Law, which was passed under time pressure, was less on sustainability and intergenerational fairness than on spending requirements, especially for infrastructure and defense spending, whose urgency was asserted in various studies, including IMF (2024), Dullien et al. (2024), Enders et al. (2025).

Some authors have now produced estimates of how the amendment to the Basic Law will affect the debt ratio of the Federal Republic of Germany, e.g. Büttner (2025). We arrive at comparable figures below. Despite a significant increase, we do not believe that these represent a direct threat to the debt sustainability of the Federal Republic of Germany. But we also analyze whether the adopted versions of Articles 109, 115 and Article 143h of the Basic Law are suitable for guaranteeing the normative postulates of sustainability and intergenerational fairness. Our assessment here is rather skeptical.

2. Sustainability and Intergenerational Fairness as Normative Concepts

In economic policy debates, the concepts of sustainability and intergenerational fairness of government debt are often

not clearly separated. We will therefore begin with a non-technical definition of these terms. It is helpful to first point out the different frames of reference: Sustainability is a concept that focuses solely on government debt, while intergenerational fairness refers to the ratio of government debt to government assets.

The concept of *sustainability* is closely linked to the question of (long-term) debt sustainability. As government debt is not secured by government assets, the sustainability of government debt is independent of government assets - and therefore independent of the question of whether the borrowed funds have been used in a way that is appropriate for for all generations that bear the corresponding debt. Rather, government debt is considered sustainable if the present value of all expected future primary surpluses of the government is at least as high as the current debt level, see Barro (1979).

A primary surplus is defined as primary government revenue (government revenue excluding revenue from loans and proceeds from the sale of assets) less all primary government expenditure (government expenditure excluding interest expenditure). For a sustainable debt policy, it therefore makes sense to demand that, on a long-term average, all primary government expenditure can always be covered by tax revenue and other primary government revenue. Depending on the level of existing debt, this may not be sufficient for debt sustainability, but it is a necessary prerequisite. In the following, we assume that government debt is sustainable if this condition is met

Intergenerational fairness exists when government debt and government assets always roughly balance each other out, because then the next generation "inherits" net assets of zero. If, on the other hand, debts were greater than state assets, it would be undeniable that the current generation has consumed too much at the expense of future generations. The reverse is of course also conceivable. Intergenerational fairness is sometimes also referred to as the "golden rule of fiscal policy" in relation to current values, see Federal Ministry of Finance (2022). (Note 1)

Assuming that the state's net assets are currently approximately zero or at least should be passed on to the next generation at approximately the same level, intergenerational fairness firstly requires that new debt is used for investment purposes and not for consumption purposes. It also requires that either existing debts are repaid to the extent that the public capital stock is reduced in value through wear and tear or loss, or that replacement investments/repairs are made to the same extent. This expenditure must not be financed again through debt, as this would otherwise lead to a double burden on future generations. Rather, the wear and tear of the public capital stock should be regarded as consumption, the costs of which must be financed by the using generation from primary government revenue (henceforth: taxes). The situation is similar if a public capital asset needs to be written down at a later date as a result of a revaluation. This may become necessary, for example, due to technological progress (digitalization, fibre optics) and/or environmental revaluations (energy production, mobility). Inefficient use of funds can also lead to an overvaluation of new capital goods with a subsequent need for revaluation.

Only *net* investments can therefore be financed by debt in an intergenerationally fair manner (Note 2). However, the Federal Republic of Germany does not have a capital account where depreciation on public capital goods is booked. The government is therefore unable to distinguish between gross investment and net investment. As the Bundesrechnungshof (Federal Audit Office 2024) points out, the value of the federal government's infrastructure assets is not even recorded - only the areas used (in hectares) are accounted for. Under the postulate of intergenerational fairness, economic policy can therefore at most exploit the limited informational content of flow values.

3. Reform of the Debt Brake and Estimation of Additional New Debt

The amendment to the debt brake adopted in March 2025 consists of three elements, which are described in the draft bill (Note 3) as (1) "limited borrowing exception for defense spending within the framework of the debt rule", (2) "strictly limited additional scope for budgetary deficits of the federal states" and (3) "special fund for federal/state/municipal infrastructure":

(1) *Defense spending and related purposes* (federal spending for civil defense and civil protection, intelligence services, the protection of information technology systems and for support of states attacked in violation of international law) above 1% of GDP will not be counted towards the general debt rule in future. If the budget estimates for these expenditures together amount to 3% of GDP, for example, 2% of GDP will be counted towards the exemption from the credit ceiling. (It is not clear to us why this exemption is referred to as "limited".)

(2) Regardless of the economic situation, *the German federal states as a whole* will also be given limited scope for debt amounting to 0.35% of GDP.

(3) A special fund (SF) *Infrastructure and Climate Protection* (Art. 143h of the Basic Law) authorizes the federal government to establish an SF with its own credit authorization. This can be used to finance additional investments of up to EUR 500 billion for infrastructure and to achieve climate neutrality by 2045 within a term

of 12 years, provided that the federal budget in the respective financial year achieves an "appropriate" investment ratio even without this credit authorization. (Note 4) Loans of EUR 100 billion are earmarked for the Climate and Transformation Fund (CTF). A further EUR 100 billion will be made available to the federal states.

In order to estimate the additional new debt, we assume below an annual nominal GDP growth of 3% (real growth 1%, inflation 2%). We also assume that spending on defense and related purposes will be 4% of GDP (3.5% for defense, 0.5% for other related purposes including support for Ukraine). (Note 5) Note that in the text of the law, support for states attacked in violation of international law is not limited to military support, but can also include reconstruction aid after a peace agreement for an indefinite period. Finally, we assume that the federal and state governments always make full use of the permissible new debt of 0.35% of GDP.

If the time horizon for a preliminary estimate of possible additional borrowing is set to 2036, the year in which the credit authorizations from the SF Infrastructure and Climate Protection expire, new debt of EUR 2,547 billion could be taken on over this time horizon on the basis of the extended debt brake (see Table 1). This would be supplemented by debt equal to another 0.35% of GDP per year, which was already possible as new federal debt under Art. 109 Para. 3 and Art. 115 Para. 2 of the Basic Law prior to the amendment. If we assume that the borrowing from the SF Infrastructure and Climate Protection takes place roughly evenly over the 12 years from 2025 to 2036, this results in a net new debt of 4.7% of GDP for the federal and state governments in 2025 - significantly more than the maximum 3% of GDP permitted under the EU's fiscal rules. (Note 6)

Table 1. Potential Additional Debt Issuance till 2036

Special Fund Infrastructure and Climate Protection	**500 bn. Euro**
Borrowing exception for defense and related purposes	Assumption: 4.0 % of GDP annually, of which 3,5 % of GDP for defense 0,5 % of GDP for related purposes Hence, 3,0 % of GDP financed by debt. 129.2 bn. Euro with annual nominal increase of 3 % for 12 years **= 1832.9 bn. Euro**
Additional debt by federal states	Annual budget deficits 0.35 % of GDP 15.1 bn. Euro, with annual nominal increase of 3% for 12 years **=213,8 Mrd. Euro**
Structural deficit federal government (Article 109 para. 3 Basic Law)	Annual budget deficit 0.35% of GDP 15.1 bn. Euro with annual nominal increase of 3% for 12 years **=213.8 bn. Euro**
Total	Potential debt increase over 12 years **2.546.7 bn. Euro due to change in Basic Law** **2.760.6 bn. Euro due to change in Basic Law plus structural deficit of federal government**
Note: Interest expenditure on additional debt	Assumption 3 % p.a., linear debt issue over 12 years **587.7 bn. Euro**

1) Own omputations, refering to the 12-year duration of the SF Infrastructure and Climate Protection. GDP 2024: 4,305 bn. Euro.

The German national debt (Note 7) amounted to EUR 2,710 billion on 30/09/2024. By the end of 2036, this debt would increase by €2,761 billion in the scenario under consideration, practically doubling. The largest part of this increase, namely EUR 2,547 billion, would be attributable to the change in the debt brake, while the remainder would be due to

the federal government exhausting its permitted new borrowing by 0.35% of GDP each year. This would put the debt ratio at 89% of GDP in 2036, compared to around 63% of GDP at present. This is a sharp increase, but with interest rates remaining low, it is not an acute cause for concern. Alarmism is therefore not warranted, given the above assumptions about growth and inflation. It is even conceivable that supply bottlenecks, government-stimulated demand and the threat of protectionism could cause the inflation rate to temporarily exceed the ECB's target of 2% and the debt ratio to fall accordingly.

Article 109 (2) of the Basic Law obliges the Federal Government and the federal states to comply with EU fiscal legislation. (Note 8) The developments shown in Table 1 are not compatible with the current EU fiscal rules (including a maximum annual deficit of 3% of GDP and a maximum debt level of 60% of GDP). However, it is to be expected that the EU will soon also create exceptions, at least for the credit financing of defense efforts. The German government will presumably insist that spending on additional infrastructure investments and climate protection targets also be generously exempted from the current rules. (Note 9) We therefore assume below that European rules will not stand in the way of the new credit authorizations in the Basic Law in future.

4. Examination of Sustainability and Intergenerational Fairness

In the following, we analyze the extent to which the amendments to Articles 109, 115 and 143h of the Basic Law meet the requirements of sustainability and intergenerational fairness.

4.1 Borrowing Exception for Defense and Related Purposes

Defense is one of the classic *public goods* (non-exclusion principle; nonrival use). It also is one of the core tasks of the state. (Note 10) Only if the funds required for national defense are financed from current (primary) revenues is it guaranteed that fiscal policy is sustainable. (Note 11) The same applies to related purposes if they are incurred on a permanent basis

However, the new version of Articles 109 and 115 of the Basic Law allows permanent credit financing to be provided for military and security policy purposes up to a certain percentage x of GDP. The percentage x is not capped. This no longer ensures that, at least as a rule, primary government expenditure is covered by primary government revenue, as Articles 109 and 115 of the Basic Law allow x to be set higher than is compatible with the achievement of primary surpluses, even over very long periods of time. It therefore no longer guarantees sustainable debt financing of the federal budget.

This decision by the legislator is based on the view that an external threat to the Federal Republic of Germany is not controllable by the Federal Government and that it should therefore not be prevented from doing everything necessary, including by means of credit financing, to adequately ward off the threat in the short term. However, this view falls short in terms of fiscal policy because an unsustainable debt policy could lead to capital markets refusing to provide the capital required to ward off the external threat. A federal government should be aware of this danger and therefore limit itself to borrowing that meets sustainability requirements, despite the freedom granted by the Basic Law in budget legislation.

If we again assume that expenditure on defense and related purposes amounting to 3% of GDP is to be financed by future borrowing, it is very clear that this would not be sustainable if the expenditure structure remained otherwise unchanged. This is because the primary surplus of the Federal Republic of Germany has rarely exceeded 2% of GDP since reunification and its average value was just 0.24% of GDP (see Figure 1).

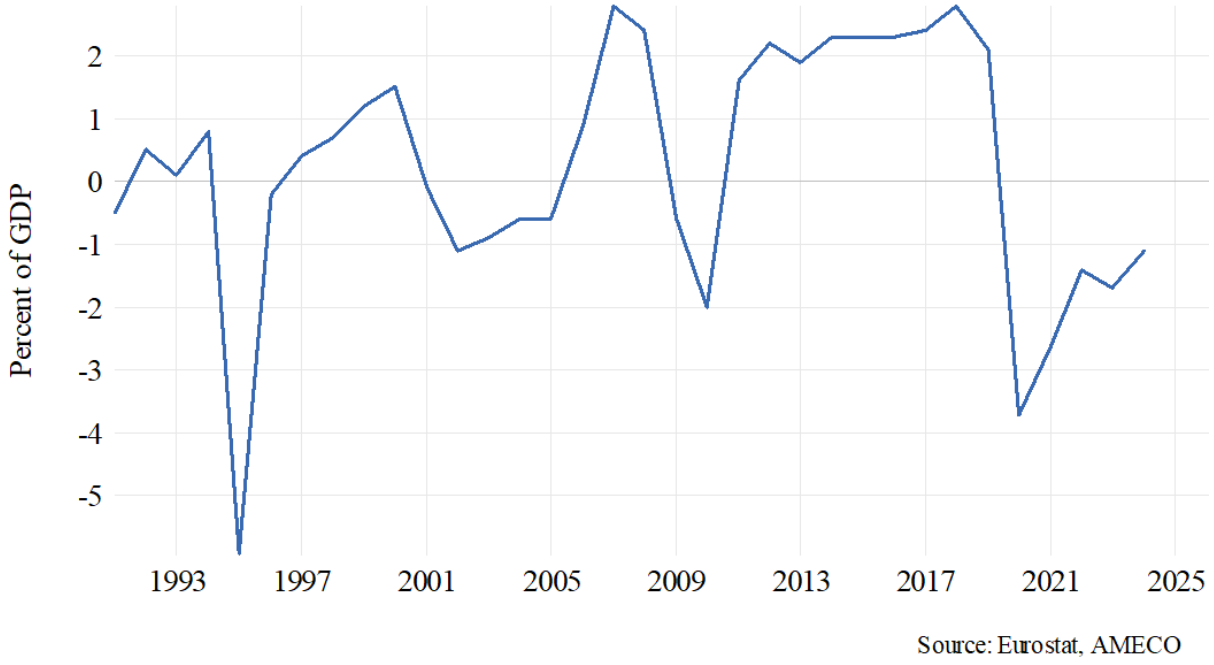

Figure 1. German Primary Surplus in percent of GDP

It is therefore cet. par. not possible to permanently finance a substantial part of the additional defense spending by borrowing without undermining the debt sustainability of the Federal Republic of Germany. (Note 12) Only temporary deficit financing would be justifiable if a temporary unexpected emergency situation arose - for example, a situation of short-term threat or even an acute case of war. (Note 13)

Whether the expenditure for defense and related purposes is *intergenerationally justifiable* despite the apparent lack of sustainability depends primarily on whether the planned expenditure is of a consumptive or investment nature. It should be noted here that Articles 109 and 115 of the Basic Law do not restrict permissible expenditure to investments. Defense expenditure can therefore also be expenditure on personnel or consumables - both of which are clearly consumptive. According to the national accounts, defense expenditure is even generally recorded as consumption. Expenditure on civil protection, intelligence services and IT security are also - in varying proportions - either consumption or investment and both may be financed by credit under Articles 109 and 115 of the Basic Law. Support for states attacked in violation of international law is even likely to be of an exclusively consumptive nature, as this expenditure does not create any assets that become the property of the next generation and thereby create a compensatory asset position for the debt incurred.

Now one could argue that the increased defense spending is an investment in an intangible capital asset "peace, democracy and the rule of law", the safeguarding of which will also benefit future generations. However, the current generation has already inherited this intangible capital asset from the previous generation. Expenditure for its preservation is therefore a replacement investment which, from an intergenerational perspective, should be financed from current income rather than from net borrowing. The situation is similar with expenditure to strengthen the German Army, the Bundeswehr. At the end of the Cold War, the Bundeswehr was in a much better fighting condition than it is today. The loss of military capability since then should therefore be interpreted as consumption by the current generation ("peace dividend"). For this reason, additional indebtedness due to the new exemption provisions in Articles 109 and 115 of the Basic Law is presumably not intergenerationally justifiable to the extent by which they consist of consumptive expenditure and mere replacement investments.

Against this background, it must be considered very problematic that the basic amount to be financed from primary state revenue for defense and related purposes was set at just 1% of GDP in Articles 109 and 115 of the Basic Law. It thus falls well below the *permanent* future expenditure requirement for defense alone and, measured against the 2% of GDP target set at the NATO summit in Wales on 4-5 September 2014, is too small even in retrospect. (Note 14) In terms of intergenerational financing, it would have been preferable, firstly, to set this 'normal level' higher at the outset (cf. Daase (2025)) and, secondly, to adjust it upwards on an ongoing basis until the new target for the defense contribution deemed necessary is reached. (Note 15)

4.2 Special Fund Infrastructure and Climate Protection

As the SF provided for in Art. 143h Basic Law has not yet been defined in more detail by federal law, various assumptions must be made before an analysis can be carried out. These relate in particular to the use of the funds to be raised by borrowing. To this end, we assume that the following legislative or executive decisions will be made:

a) The EUR 100 billion to be transferred to the CTF remain subject to the earmarking of the SF. They must therefore be used to finance *additional investments*. The investments financed from the CTF do not create any public infrastructure.

b) The 100 billion euros made available to the federal states must be used for *additional* investments in *infrastructure*. If the federal states intend to make investments to achieve climate neutrality by 2045, they have the option of raising funds from the CTF.

c) The remaining EUR 300 billion from the SF will also be used by the Federal Government exclusively for *additional* investments in *infrastructure*.

d) The term "*investment*" used in Art. 143h of the Basic Law is interpreted "broadly" by the legislator. It thus allows for both public investments and the financial support of private investments. (Note 16) This also applies to the EUR 100 billion that will be transferred to the CTF, whereby these funds are also subject to the earmarking stipulated in the law delineating the use of CTF funds.

e) Public infrastructure is made available to citizens free of charge or at least not for the purpose of generating a surplus.

f) Infrastructure investments are intended to yield long-term benefit. Hence, future governments will compensate for wear and tear promptly and indefinitely through replacement investments.

We assume an annual depreciation rate of 3% for the wear and tear of the infrastructure created, so that the average service life of an infrastructure facility without replacement investments is just over 30 years.

As the distribution of infrastructure and climate protection expenditure from the SF over time is not yet determined, the sustainability of SF-related public debt can best be assessed by starting the sustainability analysis at the end of the 12-year period, i.e. in 2036. The merely temporary effects prior to this can be disregarded in terms of sustainability.

In 2036, government debt will have risen by EUR 500 billion due to SF-related expenditure. It is assumed that the infrastructure created will not directly generate any additional government revenue in the form of monetary surpluses. Therefore, the sum of the discounted future primary surpluses falls due to the permanently higher replacement investments. Assuming an investment sum of EUR 400 billion for infrastructure – the rest being spent on climate protection- the annual depreciation amounts to EUR 12 billion, which has to be financed permanently. If we discount at an interest rate of 2% (Note 17), this results in a present value of the replacement investments to be made of EUR 612 billion after 12 years and a corresponding reduction in the present value of the future primary surpluses. (Note 18) In relation to GDP in 2036, the public debt ratio would increase by around 8 percentage points as a result of the SF, while at the same time the permanent replacement investments would imply a loss in the present value of the primary surpluses amounting to 10% of this GDP.

The *sustainability* of the additional debt caused by the SF would therefore require that the infrastructure created would lead to a strengthening of macroeconomic power, which would increase the present value of the balance of all other government revenue and expenditure excluding interest (primary balance) by 18% of GDP in 2036. Again, assuming a discount rate of 2%, this would correspond to an average annual increase in the primary balance of 0.35%. Compared to the historically achieved average primary balance of 0.24 % of the respective GDP, an increase of more than double (0.59 %) would therefore be necessary.

It is very uncertain whether this is achievable. For while it is quite conceivable that an improved infrastructure would lead to higher economic output and thus to correspondingly higher *tax* revenues, most primary *government* spending is likely to increase at the same rate, so that the primary balance would hardly change. This is because an improved

infrastructure would presumably lead to a higher marginal product of labor and thus to higher wages and salaries. As a large proportion of government spending consists of wages and salaries or other expenditure that is roughly proportional to these, such as social benefits or defense spending, primary government spending will also grow in line with tax revenues. For this reason, there are at least serious doubts about the sustainability of the SF-related debt.

With regard *to intergenerational fairness*, it should first be noted that the "additional investments" earmarked for this purpose would appear to rule out any consumptive use of the funds raised. However, up to EUR 100 billion may be disbursed via the CTF as subsidies for private plant operators, who will in turn use these funds for climate-friendly retrofitting of private assets (e.g. for energy generating plants or energy-efficient refurbishment of buildings). (Note 19)

However, the increase in value accruing to the private owners probably does not correspond to the investment sum of EUR 100 billion, because many private investments would probably not be profitable without the state subsidies and would therefore not be carried out. If, on the other hand, the private sector were profitable, the payment of subsidies would not be necessary.

In the case of a well-measured subsidy, private individuals would *not* experience any increase in wealth as a result of the subsidy. Rather, the regulatory justification for subsidizing an investment that is unprofitable from a private sector perspective is to eliminate an externality that is harmful to the climate. If the subsidy were designed optimally, the private beneficiaries would therefore not pass on any additional private assets to the next generation.

But even if the wealth of private individuals were to increase as a result of the subsidies, only that part of the population that belongs to the target group of the CTF programs would benefit from an increase in wealth. These would typically be manufacturing companies and real estate owners. Unlike with generally available infrastructure, the entire next generation would therefore not benefit from the assets created by government debt, but only the rather small proportion of the population to whom real estate assets or ownership of companies are passed on. Government debt, however, is a burden on the entire next generation.

The elimination of climate-damaging externalities does not lead to intergenerational fairness either. It is the economic behavior of the current generation that has harmful effects on the climate. Intergenerational fairness therefore requires that the effects of this behavior are remedied from the current income of the present generation - not via debt from the income of future generations. In other words, today's emissions of greenhouse gases are a "consumption" of the climate inherited from the previous generation. Financing this "consumption" through debt is not intergenerationally fair.

With regard to infrastructure investments by the federal and state governments, the key question is how the investments are divided between *replacement investments* for infrastructure that has worn out in previous years and *net investments* to create new infrastructure. In the explanatory memorandum to the creation of Article 143h of the Basic Law, the CDU/CSU and SPD explicitly refer to a "need to catch up" in infrastructure because "investment in this location factor ... has been low in the last decade" (translations). This corresponds with the narrative of an 'ailing infrastructure' that has emerged in the political arena. The statement: "As a result, the public capital stock is losing value in real terms ..." (Note 20) can, indeed must, be understood as an admission of a violation of the principle of intergenerational fairness. In this respect, it is indirectly a criticism of the so-called "black zero" of past federal budgets.

It can therefore be assumed that a large proportion of debt-financed additional infrastructure investments will be replacement investments. A normative justification of the SF Infrastructure and Climate Protection can therefore hardly refer to the intergenerational equivalence principle of public debt. Rather, a burden on the older age groups would be intergenerationally fair, e.g. through a one-off levy on assets or a reduction in pension entitlements.

4.3 Additional Scope for Debt for the Federal States

The federal states as a whole are granted an additional opportunity to take on new structural debt of a nominal 0.35% of GDP per year. The specific allocation to the individual federal states will be determined by a federal law. The explanatory memorandum to the law cites the growing challenges in the areas of education and care, the maintenance and modernization of transport infrastructure, the digitalization of administration, adaptation to climate change and the integration of refugees. (Note 21)

It is noticeable that some of these purposes (e.g. care or integration) are consumptive. Others are to be seen as replacement investments, such as the maintenance of transport infrastructure. "Adaptation" to climate change is presumably also to be understood as financing measures against climate-damaging emissions, i.e. also as compensation for "climate consumption" by the current generation. There are therefore reasonable doubts that the funds to be raised will be used in a way that is fair to future generations.

Overall, a credit-financed increase in government spending of 0.35% of annual GDP is to be expected. This reduces the present value of the primary surpluses, as no significant direct government revenue is expected to be generated from the use of infrastructure. For indirect effects from an expansion of economic output, the caveat already explained above applies that this will presumably lead to an approximately equal impact on government revenue and government spending, meaning that the primary balances will not be significantly affected by the indirect effects.

As the general government primary balance has historically only averaged 0.24% of GDP, an annual credit-financed increase in government spending of 0.35% of GDP cannot be considered sustainable. Of course, this can vary greatly from state to state. It is known that three federal states have either an established (Brandenburg, Schleswig-Holstein) or an imminent budget emergency (Bremen). In addition, several federal states (e.g. Hamburg, Saarland) also have very high per capita debt levels. For these states, exhausting the new scope for debt would be particularly problematic.

Other federal states may have a higher average primary balance than 0.24% of their GDP and may therefore be able to finance the additional debt sustainably. Of course, their primary balances already serve to secure existing debt, so it is unclear whether a permanent deterioration in primary balances of 0.35% of GDP combined with a correspondingly higher level of new debt can still be considered sustainable at the level of these federal states. This is aggravated by the fact that the new debt options will increase the scope for consumer spending, as the debt option of 0.35 % of GDP is not linked to a specific purpose such as "additional investments". (Note 22)

Since the budget problems of the federal states lie primarily in the mismatch between the tasks transferred by the federal government, the resulting expenditure and the low ordinary income, this is where a targeted reform should start.

5. Inflation and Multiplier Effects

With unutilized capacity, government spending financed by additional debt should have a positive impact on growth and employment. However, there is much to suggest that the German economy has already been suffering for several years not from unutilized capacity, but from considerable supply bottlenecks, namely in the supply of labor, energy and the consequences of a high regulatory level, see Lütteke and Müller (2025). A strong increase in demand can therefore lead to significant price and wage increases, initially particularly for defense goods and in the construction industry - with knock-on effects for the general price level.

The orders of magnitude remain speculative. For example, it is unclear to what extent military spending will displace or stimulate private sector activities. For example, Ilzetzki (2025) states in a study by IfW-Kiel that an increase in defense spending in EU countries from 2 to 3.5% of GDP would lead to a 0.9 to 1.5% increase in GDP across Europe. This corresponds to a multiplier of 0.6 to 1.0. Krebs (2025) puts this effect at just 0.5, while Hentze (2025) assumes 0.8. Overall, expectations regarding a growth effect are rather subdued, although this is likely to be higher for infrastructure spending. Krebs (2025) gives a fiscal multiplier of between 2 and 3 here, similar to Hentze (2025) with 1.8. However, the results depend heavily on how much of the orders flow abroad - especially to the USA - through imported military goods or supplies. For example, around 80% of military equipment is sourced from other EU countries (Ilzetzki 2025).

Of course, multiplier effects are largely irrelevant for sustainability considerations if the debt and the expenditure financed with it are defined as a percentage of the respective GDP anyway, as is the case, for example, with the defense and related purposes borrowing exception and with the extended debt leeway of the federal states.

Multiplier effects only play a role in terms of intergenerational fairness if they have a lasting effect. This cannot typically be assumed in the case of demand-side stimulation and even a *permanent* increase in government demand is unlikely to have an expansionary effect once the initial demand stimulus has led to capacity utilization. The supply-side effect, which can emanate from a permanently improved infrastructure, for example, is therefore particularly relevant for intergenerational fairness. The significance of this effect was discussed in the previous section.

6. European Perspective - ReArm Europe

With ReArm Europe, the EU is also planning an extensive credit-financed armament programme for the next four years with the aim of mobilizing 800 billion euros for defence, 650 billion euros of which will be spent at member state level. (Note 23) We have discussed Germany's contribution to these 650 billion euros above. In addition, there is now likely to be an EU loan program SAFE in the amount of 150 billion euros, which is to be secured via the EU budget.

Overall, the EU initiative consists of five chapters. Firstly, it plans to use this new instrument to provide the member states with loans for defense spending amounting to 150 billion euros - probably primarily for those that could lose access to the capital market due to their already high debt levels. Secondly, the member states are recommended to activate the national escape clause of the Stability and Growth Pact (SGP), so that if the defense budget is increased by 1.5 percentage points of their GDP, a further EUR 650 billion could be raised for defense through additional national

debt. Thirdly, funds from the Multiannual Financial Framework (MFF) should be converted for defense. Fourthly, the European Investment Bank (EIB) could in future open up its ESG lending standards to financing the defense industry. Finally, efficiency potential in defence procurement is to be leveraged through the harmonization of requirements and joint purchasing of the currently highly fragmented national defence industries.

The 150-billion-euro loan program is probably not of interest to Germany, as the Federal Republic receives more favourable conditions on the capital market than the EU. However, it is important that the EU Commission recommends that member states apply for the so-called national escape clause (Regulation (EU) 2024/1263, Article 26) for defense spending. This enables them to use considerable loan funds for a specific purpose. The escape clause authorizes the Council of the EU to allow a deviation from the net primary expenditure path for a limited period of time in exceptional circumstances beyond the control of the Member State and with a significant impact on the public finances of the Member State concerned. For Germany, this is the necessary complement to the amendment of the Basic Law, as Article 109(2) of the Basic Law obliges the Federal Government and the federal states to respect EU legal acts in order to maintain budgetary discipline.

7. Conclusion

The amendment to the Basic Law on the debt brake includes an exemption for defense spending and related purposes from 1% of GDP, an SF Infrastructure and Climate Protection of EUR 500 billion and structural new borrowing by the federal states of 0.35% of GDP. These changes are justified by alleged past underfinancing and underinvestment.

We estimate the resulting government debt ratio to be almost 90% in the medium term. This is significantly higher than today and far beyond the upper limit of 60% of GDP for government debt laid down in the protocol to the Maastricht Treaty. However, such a debt ratio is not unusual by international standards and its level does not initially give cause for acute concern. But, of course, the medium-term debt ratio is not the long-run equilibrium value of the debt ratio.

Determining the long-run equilibrium value requires assumptions about the deficit ratio and the rate of nominal GDP growth even beyond the 12-year horizon we have analyzed. For instance, if after 2036 the nominal GDP growth continued to be 3 % forever and the deficit ratio were permanently fixed at 3.7% (as in our scenario after the debt allowance for infrastructure and climate protection has expired), the long-run debt ratio would be 127%. But this is just a mechanical calculation that does not account for productivity enhancing effects of debt-financed infrastructure or for possible inflationary effects of debt-financed aggregate demand in the construction and defense sector. Further research involving a full-fledged macroeconomic model would be required to obtain more realistic results.

However, our further analysis shows that the additional debt presumably conflicts with the normative requirements of sustainability and intergenerational fairness. Interestingly, these aspects hardly seem to have played a role in the legislative process.

The amendment to the Basic Law largely removes the self-binding obligations that the budget legislator had previously imposed on itself through the debt brake. Assuming that the structure of all other expenditure and revenue items in the public budgets remains largely unchanged, Germany's primary balances are expected to deteriorate significantly in the future. This deterioration is estimated to be so great in quantitative terms that the new borrowing that is now possible no longer appears sustainable. It is therefore urgently necessary for the new federal government to implement structural fiscal policy reforms without delay. These must credibly signal to investors that Germany will continue to generate sufficiently large primary surpluses in the future in order to continue to be classified as a first-class debtor. Incidentally, this is also the assessment of the International Monetary Fund, see IMF (2024).

From the point of view of intergenerational fairness, the newly created debt opportunities cannot be justified. To a very large extent, the intended measures finance replacement investments for current or past consumption – of both physical and intangible goods. This is regrettable not only because there is no allocation of costs according to the pay-as-you-use principle (Note 24), but also because a precedent is being set: Future governments could also refrain from timely replacement investments from primary state revenues because they speculate that, if the problem backlog is sufficient, debt options will again be made possible by constitutional amendment, allowing the intergenerational unfairness suffered to be passed on to the next generation. The obvious cost of such an approach is the recurring suboptimal maintenance of important public goods.

It is therefore essential to define the hitherto vague concept of the 'appropriate investment ratio' as precisely as possible in the implementing legislation for Art. 143h Basic Law. It would be economically obvious and in line with the normative postulate of intergenerational fairness to consider the replacement for the depreciation of infrastructure assets and intangible public goods as part of the appropriate investments.

In this context, further research is also warranted that addresses the application of business accounting methods for the

valuation of long-term capital assets in the government sector. In this regard, especially from the perspective of intergenerational equity, it would be essential to clarify the different treatment of the term 'investment' in public debt or public budgeting law on the one hand and in economic or business terminology on the other. Ultimately, these considerations could lead to another amendment of the Basic Law that limits net new borrowing to no more than net investment as defined by business accounting standards, and restricts the debt exemption clauses to the already existing exception for natural disasters or extraordinary emergency situations.

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Notes

Note 1. In order to avoid confusion with the "Golden Rule of Capital Accumulation" formulated by Phelps (1961), we prefer the term intergenerational fairness in the following.

Note 2. Prior to the introduction of the debt brake in 2009, Article 115 of the Basic Law restricted net borrowing by the federal government by stipulating that, as a rule, it may not exceed the amount of investment budgeted in the budget. This regulation presumably reflected the feeling that consumption should not be financed at the expense of future generations. Nevertheless, it was not intergenerationally fair, as it was based on gross investments and thus allowed replacement investments, i.e. compensation for the wear and tear of public capital, to be financed by credit.

Note 3. See draft bill by the SPD and CDU/CSU parliamentary groups - printed matter 20/15096 - draft bill to amend the Basic Law (Articles 109, 115 and 143h) and amendment motion by the SPD, CDU/CSU and Bündnis 90/ Die Grünen parliamentary groups in the Budget Committee.

Note 4. This is currently a legally undefined term. Amendment No. 4 to the draft law states: "Additionality in this sense only exists if there is an appropriate investment ratio. This is the case if the total share of investments budgeted in the respective financial year exceeds 10 percent of expenditure in the federal budget excluding special funds and financial transactions." If this were also regulated by law, with an investment share of 12.1% of the federal budget (2024), all investments from the SF could currently be considered "additional".

Note 5. Hentze (2025), p. 6 states an amount of EUR 13.4 billion for "related purposes" based on the draft federal budget for 2025.

Note 6. See also the information in Krebs (2025), which refers to a permissible annual new debt of just under 4% of GDP (around EUR 170 billion) if defense spending increases to 3%.

Note 7. As at 30.9.2024 in the Eurostat definition, which goes back to the Maastricht Treaty.

Note 8. "The Federation and the Länder shall jointly fulfill the obligations of the Federal Republic of Germany arising from legal acts of the European Community on the basis of Article 104 of the Treaty establishing the European Community to maintain budgetary discipline and, within this framework, shall take account of the requirements of macroeconomic equilibrium." (Art. 109 para. 2 GG, translation).

Note 9. Loi and De Lemos Peixoto (2024) provide an overview of the EU rules on debt. See also Bundesrechnungshof (2025), p. 8 and 21 f.

Note 10. See also the explanatory memorandum to the draft bill of the SPD and CDU/CSU parliamentary groups - printed matter 20/15096, p. 1 f.

Note 11. See Feld (2025); also Grimm (2025).

Note 12. A lack of sustainability or debt sustainability does not mean that the debt ratio will rise indefinitely. As long as nominal GDP grows at a positive rate, government spending that is in a fixed ratio to GDP can also be financed by borrowing on a permanent basis without the debt ratio exploding. The government debt ratio could always be stabilized at a high level. The decisive question is whether capital markets would provide a sufficiently high supply of credit if negative primary surpluses are expected over the long term.

Note 13. However, the explanatory memorandum to the draft law did not refer to an acute emergency. It was merely "foreseeable that the 'Bundeswehr Special Fund' in its current volume and the current financial planning will not be sufficient to close existing capability gaps in the Bundeswehr." (Translation). Cf. the explanatory memorandum to the draft bill of the SPD and CDU/CSU parliamentary groups - printed matter 20/15096, p. 1 f. In the current security policy situation, this must be interpreted as a desire to increase the Bundeswehr's combat capability not just temporarily, but permanently.

Note 14. For the genesis of NATO's two percent target, see Wissenschaftliche Dienste des Deutschen Bundestages (2017).

Note 15. Admittedly, this might require multiple amendments to the Basic Law - which could be politically difficult. However, the political difficulty does not alter the economic appropriateness of this approach.

Note 16. Expenditure on investments is defined in the same wording in Section 13 (3) no. 2 sentence 2 Federal Budget Code (BHO) and in Section 10 (3) no. 2 sentence 2 of the Budgetary Principles Act (HGrG). Accordingly, the creation and acquisition of public productive capital counts as investment, while the promotion of private measures, e.g. through lost subsidies, does not meet the requirements of the definition. However, Art. 143h of the Basic Law is not bound by these provisions and the legislator is free to specifically define the investment concept of special assets

by means of ordinary legislation. It stands to reason that this will be the case, as excluding the promotion of private investment would presumably be tantamount to an extensive ban on the use of the EUR 100 billion that is to be used for additional investment in the CTF. An indication of a broader understanding of investment is already provided by the explanatory memorandum to Art. 115 GG old version, which states that investments are expenditure on measures "which, from a macroeconomic point of view, maintain, increase or improve the means of production of the national economy".

Note 17. The Federal Republic of Germany discounts cash flows using a long-term average of the current yield on listed German government securities with a remaining term of 15 to 30 years, see Bundesrechnungshof (2021).

Note 18. It is assumed that annual depreciation amounting to 3% of the investment sum of EUR 400 billion will be incurred from 2037 at the latest, i.e. EUR 12 billion per year. At a discount rate of 2%, the present value of a cash flow of one euro per year into the infinite future is 51 euros $\left(\sum_{\tau=1}^{\infty}(1,02)^{-\tau}=51\right)$. Multiplied by 12 billion, this amounts to 612 billion euros. In 2036, this is the present value (in real terms) of all future replacement investments.

Note 19. The constitutional-law understanding of investments differs significantly from the economic understanding. This is why, for example, not only commercially operated charging stations in road traffic can be legally funded from the CTF, but also premiums for the purchase of consumer goods such as e-cars, because these contribute to reducing CO_2 emissions in road traffic. Under public law, investments include all government spending that serves the politically and democratically defined goals of growth and transformation. This includes, among other things, expenditure on defense, expenditure to promote private investment and expenditure that is intended to achieve a climate policy purpose by changing consumer behavior.

Note 20. Draft bill of the SPD and CDU/CSU parliamentary groups - printed matter 20/15096, p. 2.

Note 21. See draft bill of the SPD and CDU/CSU parliamentary groups - printed matter 20/15096, p. 2.

Note 22. See Bundesrechnungshof (2025), p. 20; Grimm (2025).

Note 23. See European Commission (2025), European Council (2025) and European Commission (2025).

Note 24. Cf. Lüdeke (1998, p. 260 ff.)