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Implications of the German debt brake reform for key fiscal indicators

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Working Paper 02/2026**)
November 2026

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November 11, 2026

Abstract

The 2025 reform of the German debt brake introduced an exemption to the cap on net borrowing which allows debt-financing of defence-related spending beyond 1 % of GDP by the federal government. In addition, a special fund for infrastructure and climate neutrality with a borrowing allowance of 500 bn euro was created and the borrowing constraint for the states was relaxed. This paper examines the implications of this reform for key fiscal indicators up to 2040. Until 2030, the rise in defence spending is largely debt-financed and the funding gap, i.e. planned spending not covered by revenue and permitted borrowing, is projected to rise to 1.2 % of GDP. After 2030, the development of key fiscal indicators is contingent on the continued use of the debt brake exemption for defence spending. If the exemption is phased out by 2037, the funding gap widens to 4.8 % of GDP in 2040, which corresponds to 42 % of the federal budget of 2026 (11.4 % of GDP), while the general government debt ratio falls back to 77.5 %. If the exemption is phased out gradually, the funding gap reaches 4.6 % of GDP and the debt ratio 85.4 %. If defence spending continues to be debt-financed as in 2030, the funding gap is smaller at 2.7 % of GDP, or 23 % of the 2026 budget, but the debt ratio rises to 97.6 % and interest payments grow strongly.

Keywords: fiscal projection, debt brake, defence spending, interest payments, funding gap, Germany

JEL classification: H50, H61, H62, H63, H68

We thank colleagues at the GCEE for comments and Fabian Sondermaier for excellent research assistance. The views expressed in this paper are those of the authors and do not necessarily reflect the position of the German Council of Economic Experts.
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1 Introduction

In March 2025 the German Basic Law (*Grundgesetz*) was amended in three aspects. First, an exemption rule to the debt brake, i.e. to the cap on the federal government's net borrowing, for defence spending was introduced. Defence spending and certain related spending[1] exceeding 1 % of nominal GDP may be debt-financed (referred to below as the 'exemption rule' for defence spending; Bundesrepublik Deutschland, 2025a). Second, a special fund for infrastructure and climate neutrality (*Sondervermögen Infrastruktur und Klimaneutralität*, SVIK) with a borrowing allowance of 500 bn euro outside the debt brake was created. Third, the German states (*Länder*) were granted a structural borrowing allowance of 0.35 % of GDP.

The reform has loosened the federal government's borrowing constraints; it has not, however, resolved the structural pressure on the federal budget. The financial plan for 2026–2030 already includes spending that is not fully funded (Bundesregierung, 2026b). It contains net global spending reductions (*globale Minderausgaben, GMA*), lump-sum reductions which are not yet assigned to individual spending lines. These will rise from 8.8 bn euro in 2026 to 72.1 bn euro in 2030. A small share of these spending reductions will materialise on their own, as some of the budgeted funds regularly remain unspent.[2] The largest part, however, is not yet backed by concrete spending cuts or increases in revenue.

This paper measures fiscal pressure as a 'funding gap': the part of planned federal spending that is not covered by revenue including borrowing permitted under the debt brake, after allowing for the usual underspending of 1.5 % of total federal spending (*Bodensatz-GMA*). In 2030, the funding gap amounts to 62.6 bn euro, or 1.2 % of GDP.

Fiscal pressure, according to the federal government's financial plan, already increases in the next few years. Up to 2030, defence spending rises from 1.3 to about 3.5 % of GDP and interest spending from 0.7 to 1.6 % of GDP. Most of this increase is financed with debt under the exemption rule for defence spending. The resulting funding gap of 1.2 % of GDP is already considerable. After 2030, the development of key fiscal indicators depends on whether and how fast borrowing under the exemption rule is phased out. A phaseout has not yet been specified in the Basic Law and would have to be set by the legislator.[3] If the exemption rule were to be phased out, defence spending would have to be increasingly financed with regular revenue; if there is no phaseout, debt will continue to rise. In both cases, interest payments will grow further, as securities issued during the low-interest period are refinanced at current yields.

This paper projects the federal budget and general government debt up to 2040 in three scenarios starting in 2031: borrowing under the exemption rule for defence spending is phased out by 2037 (Scenario 1), phased out more slowly (Scenario 2) or used continuously at the scale of 2030 (Scenario 3). Macroeconomic projections are unchanged across scenarios. The federal government's spending and revenue are projected based on different assumptions detailed

[1] Related spending comprises spending on civil protection, intelligence services, protection of information technology systems and aid to states attacked in violation of international law.

[2] The government classifies 48 bn euro of the global spending reductions planned for 2030 (72.1 bn euro) as unresolved consolidation measures (*Handlungsbedarf*), which still have to be specified as concrete spending cuts or additional revenues.

[3] A phaseout of the exemption rule for defence could be implemented simply by reducing the amount of debt to be taken on in future budgets. However, enshrining a phaseout path in the Basic Law would place a stronger constraint on future policy and signify a stronger political self-commitment.

in Section 2.1. Possible output effects of additional debt-financed spending, as estimated by Ochsner and Zuber (2025) and used in chapter 2 of the GCEE's annual report 2025/26 (GCEE, 2025), are not modelled; they would mainly affect the debt ratio rather than the funding gap, see Section 5.

If borrowing under the exemption rule for defence spending is phased out (Scenario 1), the funding gap rises to 4.8 % of GDP in 2040, which corresponds to 42 % of the federal budget of 2026, while the general government debt ratio falls back to 77.5 % after peaking in the mid-2030s. More than four fifths of the increase in the funding gap after 2030 results from defence spending, which due to the phaseout needs to be financed with regular resources. In Scenario 2, the funding gap reaches 4.6 % of GDP and the debt ratio 85.4 %. If exemption rule borrowing continues (Scenario 3), the funding gap is smaller at 2.7 % of GDP, but the debt ratio rises to 97.6 %, the deficit remains above 3 % and rising interest payments become the main source of fiscal pressure. In Scenario 1, spending on social spending, defence, civil service pensions and interest alone exceeds all resources available under the debt brake from 2033 onwards. Results hold under alternative assumptions for growth and interest rates and also when defence spending is held constant in real terms. Once differences in assumptions are taken into account, they are also consistent with the debt projections of the Bundesbank (Deutsche Bundesbank, 2025a) and of the GCEE (2025).

The paper is structured as follows. Section 2 outlines the projection approach and the scenarios. Section 3 presents the results, including a decomposition of the funding gap, the total funding need, the share of committed spending and the implications for the European fiscal framework. Section 4 compares the general government results with the projections of the Bundesbank, Paetz et al. (2026), and of the GCEE's annual report 2025/26. Section 5 discusses the limitations of the approach and Section 6 concludes.

2 Projection approach

We project revenues and spending for the core federal budget (*Kernhaushalt des Bundes*), alongside federal net borrowing and debt, including special funds with their own borrowing allowance (*Sondervermögen*). Based on these projections, we derive the paper's key fiscal indicator — the funding gap — which is discussed in detail below. In addition, we make assumptions about the net borrowing of the states (*Länder*), the municipalities, and the social security funds. These debt stocks and net borrowing figures provide the basis for projections of the general government deficit and debt ratios. The projection starts in 2025, the latest year with outturn data, and ends in 2040. For 2026–2030, we follow the federal government's financial plan: for total spending, tax revenue, other revenue, and net borrowing we match the planned figures, with the planned global budget items (*Globalansätze*) closing any funding gap (Section 2.2). From 2031 onwards, all aggregates are projected based on our own assumptions.

2.1 Assumptions and modelling choices

Macroeconomic assumptions. Up to 2030, we use the federal government's macroeconomic spring projection, which served as the basis for the government's financial plan (BMWE and BMF, 2026). In this projection, the output gap narrows from −1.8 % of potential output in 2026 to −0.4 % in 2029 and is closed from 2030 onwards.[4] Thereafter, real GDP grows with real potential output according to the GCEE's medium-term projection, on average by 0.3 % per year from 2031 to 2040 (GCEE, 2026). Moreover, we assume that the GDP deflator rises by 2 % per year after 2030. Nominal GDP thus increases from 4 469 bn euro in 2025 to 6 558 bn euro in 2040.[5]

Spending. Federal spending is projected by function, using the categories reported in the federal financial plans. For a detailed discussion refer to Appendix A. Given their weight in the budget, three components warrant special attention. First, defence spending grows with nominal GDP of the previous year from its 2030 level onwards and thus remains at about 3.5 % of GDP.[6] Second, the federal grants to the pension, health and long-term care insurance follow the nominal path projected by Werding et al. (2026). Third, interest payments are derived from a portfolio model that tracks outstanding federal bonds and new issuances security by security. The coupons for newly issued bonds are based on the federal government's financing conditions as of 22 October 2026 and react to variations in government debt and economic growth (see Appendix A.3 for a detailed discussion). In what follows, interest payments refer to those of the core budget (Chapter 3205) and, from 2028 onward, include the interest on the special fund for the Bundeswehr. All other spending categories grow with nominal GDP of the previous year, mostly with an elasticity of one; for five categories, elasticities below one which were estimated with statistical significance are used (Appendix A.1).[7]

Revenue. The federal core budget has three main financing sources: tax revenue, net borrowing and other revenue. Tax revenue comprises nine separately projected tax components – i.e. income tax (*Einkommensteuer*), VAT (*Umsatzsteuer*), and federal taxes (*Bundessteuern*) – net of deductions such as transfers to the European Union (EU) and regionalisation funds. From 2031 onwards, the tax components are projected using category-specific elasticities with

[4] While macroeconomic projections have since changed, we deem it important to match the government's planned spending and resulting GDP ratios. We discuss sensitivity analyses for different growth paths in Appendix C.

[5] The spring projection does not incorporate the annual summer revision of the national accounts by the Federal Statistical Office; its figures may therefore differ from subsequently revised data.

[6] Defence spending is defined throughout this paper as spending under *Section 14* (Einzelplan 14) of the federal budget (Bundesregierung, 2026a).

[7] In addition to our estimates, there are fiscal and economic reasons why spending in these categories is likely to grow only modestly or even not at all in the future. Transport expenditures in the core budget could remain subdued, as the SVIK finances a substantial share of maintenance for the federal road, rail, and waterway networks until 2036. Defence-related infrastructure costs could be covered under Section 14. Outlays for development cooperation represent largely discretionary spending; given the substantial future consolidation burden and competing fiscal priorities, future governments are unlikely to prioritize increases therein. The housing construction premium will probably not rise without new legislation, since its subsidy rates, maximum eligible savings, and income thresholds are all fixed in nominal terms by law. Spending on social compensation is unlikely to increase as the number of beneficiary war victims continues to decline. Lastly, a major component of other social measures consists of reimbursements for the closed special pension schemes of the former GDR; because these schemes accept no new entrants, spending in this residual category is likely to decline.

respect to contemporaneous nominal GDP, calibrated consistent with OECD (2023), while the deductions are extrapolated with unit elasticities with respect to GDP (Appendix A.2). Our computations imply a tax revenue increase from 437.4 bn euro (8.4 % of GDP) in 2030 to 559.5 bn euro (8.5 % of GDP) in 2040.

Net borrowing, defined as gross borrowing less repayments of maturing debt, is subject to the debt brake (Article 115(2) of the Basic Law). The regular structural borrowing allowance of the federal government is 0.35 % of nominal GDP, measured against the GDP of the year preceding the preparation of the budget, that is, usually two years before the budget year. From 2031 onwards, this allowance is assumed to be fully used in each year. Unlike the routine refinancing of maturing debt, scheduled repayments of earlier emergency loans, such as those taken out during the pandemic, reduce the available net borrowing capacity. Since 2025, additional borrowing is permitted under the exemption rule for defence spending (*Bereichsausnahme*), which excludes eligible defence and security spending above 1 % of GDP from the regular borrowing limit. The government foresees net borrowing of 152 bn euro or 2.9 % of GDP under the exemption rule in 2030. For 2031 to 2040, we project net borrowing under different scenarios as detailed in Section 2.3. Admissible net borrowing in the core federal budget is thus the structural allowance minus repayments of emergency loans plus borrowing under the exemption rule (Appendix A.3). Borrowing by the special funds is modelled separately. The special fund for infrastructure and climate neutrality (SVIK), for instance, borrows according to the disbursement profile assumed by the GCEE (2025), peaking at 59.2 bn euro in 2029 and declining to almost zero by 2040.

The so-called other revenue comprises non-tax receipts, including administrative fees, interest income and income from federal enterprises and shareholdings. It is projected proportional to nominal GDP, with its ratio to GDP held constant at the average of 2025–2030 (realised values and financial plan).

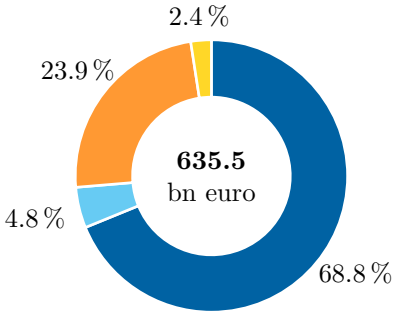
2.2 Funding gap, general government deficit and debt

Figure 1 shows the budget planned for 2030, the last year of the financial plan and the starting point of our own projection. Tax revenue accounts for 69 % of total revenue, while net borrowing contributes 26 %, with the vast majority of 23.9 % under the exemption rule for defence spending (151.8 bn euro). Three blocks dominate spending: social spending (38 % of spending, of which federal grants to the pension, health and long-term care insurance 25 %), defence spending (26 %) and interest payments (11 %). Together they amount to 533.6 bn euro or 75 % of total spending. These three spending blocks alone exceed the 468.2 bn euro of tax and other revenue.

Figure 1: Planned revenue and spending of the federal budget in 2030

Revenue

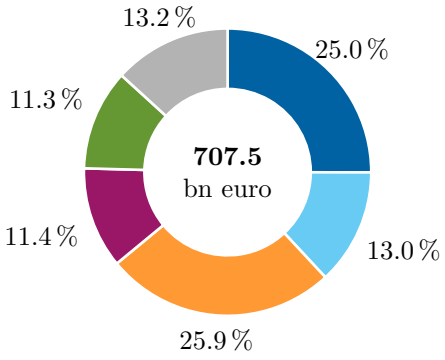
Shares in %



	bn euro
Tax revenue	437.4
Other revenue	30.8
Borrowing under the exemption rule	151.8
Other net borrowing	15.5

Spending before global spending reductions

Shares in %



	bn euro
Social insurance subsidies	177.1
Other social spending	92.3
Defence	183.6
Interest	80.7
Economy, transport, research	80.3
Other spending	93.6

Note: Federal core budget, 2030 values of the federal government's financial plan (Bundesregierung, 2026b). The area of each ring is proportional to its total. Borrowing under the exemption rule for defence spending is the debt-financed part of exemption-eligible spending above 1 % of GDP (Section 2.3); other net borrowing is borrowing under the regular rules of the debt brake. Spending is shown by function. Social insurance subsidies: federal grants and other payments to the pension, health and long-term care insurance. Other social spending: labour market, family benefits, old-age basic income support and other social spending. Defence: Section 14 of the federal budget. Economy, transport, research: economic promotion and energy, transport, and science, research and education. Other spending: civil service pensions outside Section 14, internal security, development cooperation, smaller functions and spending not assigned to a function (in particular Section 60).

The funding gap. In 2030, total spending exceeds the resources available under the debt brake by 72.1 bn euro, about 10 % of spending. In the financial plan, the core budget is nevertheless balanced: the plan books this difference as so-called global budget items (*Globalansätze*). These are lump-sum positions not yet assigned to individual revenue or spending items; on the spending side they comprise global increases (*globale Mehrausgaben*) and global reductions (*globale Minderausgaben*). In 2030 the reductions prevail and reduce total spending to 635.4 bn euro. Since net borrowing is limited by the debt brake in our projection, we follow the same logic in all later years: the difference between the projected spending and feasible spending (the sum of tax revenue, other revenue and admissible net borrowing) is equivalent to the closing item, which is a lump-sum spending reduction in every year and scenario (see below).

Not all of these reductions signal a spending cut. Federal budgeting distinguishes two kinds of global spending reductions. Underspending adjustments (*Bodensatz-GMA*) reflect the underspending that regularly arises when not all appropriated funds are disbursed; they are realised in the budget execution without specific measures.[8] Unresolved consolidation measures (*Handlungsbedarf-GMA*), by contrast, quantify a consolidation need that still has to be specified by concrete spending cuts or increases in revenue. While they may appear in the medium-term financial plan, their financing must be explicitly specified when the budget for the respective year is drafted. The *funding gap* of this paper is defined as the closing item minus underspending adjustments. We set underspending adjustments at their typical expected value of 1.5 % of total spending after cuts (Bundesregierung, 2022). This definition is applied in every year, including the financial plan period. For 2030 it treats 9.5 bn euro of the global spending reductions as underspending adjustments and yields a funding gap of 62.6 bn euro (1.2 % of GDP). This exceeds the unresolved consolidation measures of 48 bn euro reported by the government (Bundesregierung, 2026b), as the plan treats about a third of the global budget items as requiring no additional measures. If this split were applied to all later years the funding gap would be significantly smaller (Section 3.4).

The projection treats borrowing and spending asymmetrically. On the financing side, it assumes that the budget is consolidated every year, as the debt brake requires: the global spending reductions are realised, and the federal government borrows only what is admissible under the regular rule and the exemption rule for defence spending. Debt, interest spending and the general government deficit therefore follow a path that complies with the fiscal rules. On the spending side, by contrast, no consolidation is assumed. Each spending category is projected from its planned level under current policy, without lowering the base by the cuts of earlier years. The funding gap is therefore not a forecast of a future deficit. Because the budget must be closed every year, a gap cannot persist or accumulate. Instead, it shows the consolidation pressure implicit in the current fiscal policy path: the amount that revenue increases or spending cuts would have to achieve in a given year relative to current policy, assuming that no measures to reduce the funding gap have been taken in earlier years. Since measures that close the funding gap in one year also reduce it in later years if they are permanent, summing up gaps across years is not a meaningful exercise.

[8] Their size must be justified by realistically estimated unspent appropriations; otherwise their inclusion may be challenged as a violation of the parliamentary budget right, as a ruling of the constitutional court of Saxony-Anhalt illustrates (Landesverfassungsgericht Sachsen-Anhalt, 2025).

Deficit and debt. General government debt and deficit are computed in accordance with the Maastricht definitions. Starting from 2025, the debt stocks reported by the Federal Statistical Office (Statistisches Bundesamt, 2026a,b) and the Bundesbank (Deutsche Bundesbank, 2026a), the debt of the federal government including its special funds, the German states, the municipalities and the social security system is projected for the following years based on their respective net borrowing. The German states are assumed to fully use their structural borrowing allowance of 0.35 % of GDP. Municipalities are not subject to the debt brake; their debt is expected to rise in the upcoming years. We set municipal net borrowing at up to 29 bn euro up to 2029 and hold municipal debt constant as a share of GDP from 2030 onwards. Social security funds are assumed not to borrow, as they are not allowed to finance their spending through debt. These debt stocks are reconciled with the Maastricht definition by accounting for transactions of public institutions not captured in the budgetary figures (Deutsche Bundesbank, 2025b). The Maastricht deficit is the annual change in Maastricht debt less stock-flow adjustments, which account for transactions that affect debt without affecting the deficit. Debt and deficit dynamics as well as detailed assumptions are discussed in Appendix A.3. Since federal borrowing follows the scenario-specific paths and does not increase to cover the funding gap, the resulting debt and deficit paths are conditional on this gap being closed in each year.

2.3 Scenarios for a phaseout of the exemption rule for defence spending

The Basic Law allows defence and security spending above 1 % of GDP to be debt-financed. This rule is limited neither in terms of the amount of admissible debt nor in time. Therefore, how long defence spending continues to be financed by borrowing is a political decision. In the financial plan for 2026 to 2030, net borrowing due to the exemption rule is gradually scaled up to 151.8 bn euro or 2.9 % of GDP in 2030.[9] Consequently, 83 % of defence spending is financed by debt. This paper considers three scenarios, in which defence spending itself is identical and only its financing differs, due to different persistences of the exemption rule for defence spending:

- **Scenario 1 (rapid phaseout):** The threshold above which eligible spending may be debt-financed is raised by 0.5 percentage points of reference GDP per year from 2031. From 2037 onwards, defence spending is financed entirely from the regular budget.
- **Scenario 2 (gradual phaseout):** The threshold is raised by 0.25 percentage points of reference GDP per year from 2031; exemption rule borrowing amounts to 36.3 bn euro in 2040.
- **Scenario 3 (no phaseout):** Exemption rule borrowing is not phased out. Exemption rule-eligible spending above the threshold of 1 % of GDP continues to be fully debt-financed, so that exemption rule borrowing rises to 192.5 bn euro or 2.9 % of GDP in 2040.

[9] Under the Article 115 Act (*Artikel 115-Gesetz*), the threshold is calculated against the GDP of the year preceding budget preparation, typically two years before the budget year; this projection applies the same convention. For 2030, the financial plan projects defence spending at 3.5 % of that year's GDP (3.7 % of 2028 GDP). Additionally, 0.3 % of GDP (0.4 % of 2028 GDP) is allocated to other defence-related spending items eligible for debt-financing under the exemption rule. Consequently, out of the total 4.1 % of 2028 GDP (3.9 % of 2030 GDP) qualifying under the exemption, approximately 3.1 (2.9) percentage points are credit-financed on top of the core budget's structural net borrowing. These shares remain stable throughout the projection horizon.

The phaseout is implemented by raising the threshold above which eligible spending is debt-financed: in Scenarios 1 and 2, the threshold increases by 0.5 and 0.25 percentage points of reference GDP per year, so that, relative to Scenario 3, corresponding amounts of defence spending are shifted to regular budget financing. For example, in 2032, the second year of the phaseout, the threshold in Scenario 1 is 2 % of GDP, so that exemption rule borrowing is 1 percentage point of reference GDP lower than in Scenario 3. About 52 bn euro of defence spending is thus financed by the regular revenue rather than by additional debt. In Scenario 2, the threshold is 1.5 % of GDP, and about 26 bn euro are shifted. For a given defence spending path, a faster phaseout therefore requires a larger share of defence spending to be financed by regular budgetary resources. This widens the funding gap of the core budget but reduces debt accumulation and the associated interest spending (Section 3).

3 Results

3.1 Funding gap, deficit and debt

We project the current fiscal policy path for the funding gap and interest payments in the core budget as well as the Maastricht deficit and debt-to-GDP ratio. Figure 2 presents the main results; for underlying figures refer to Tables B.1 to B.3 in Appendix B.

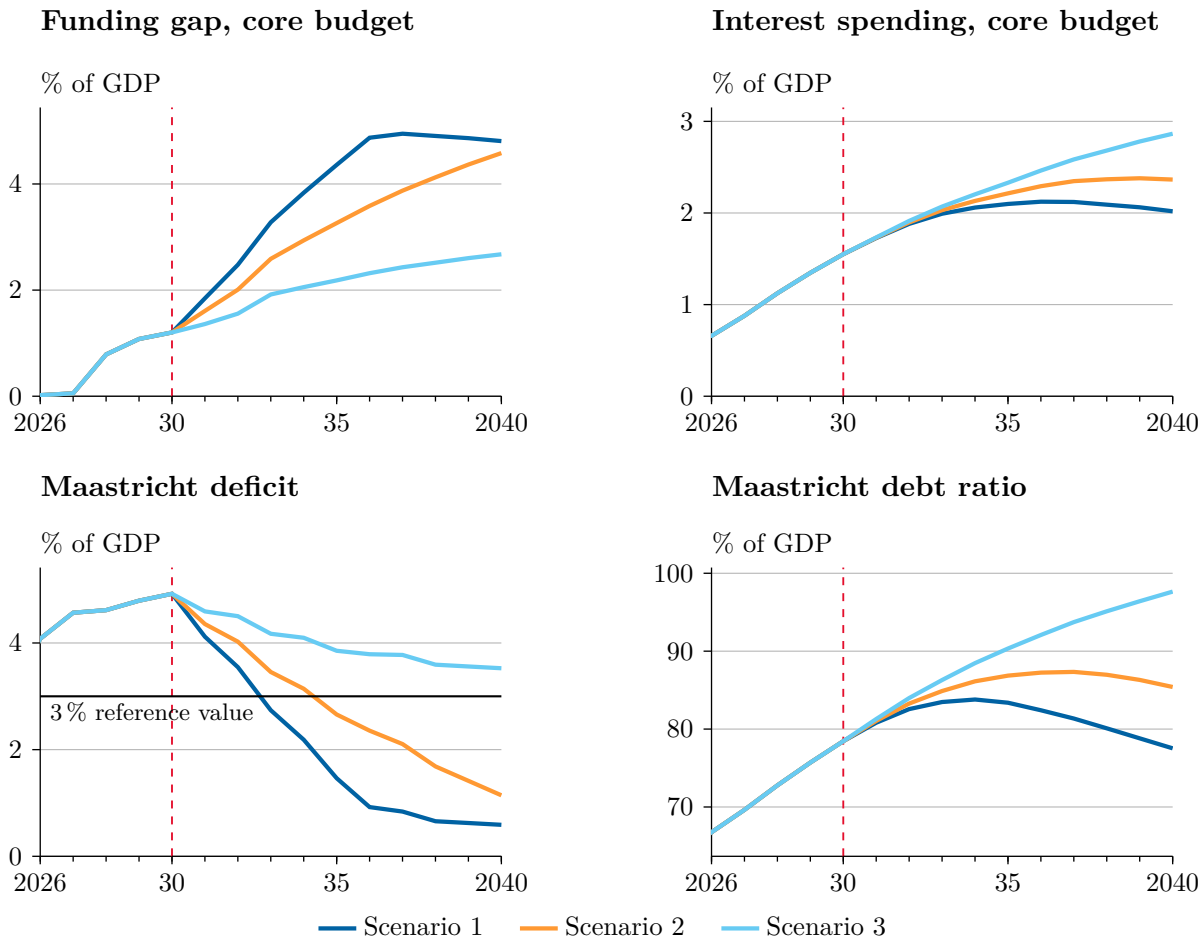
For the years 2026–2030, we replicate the government's financial plan. By the government's own projections, the budget is already under significant funding pressure by 2030. A significant funding gap emerges in 2028 and amounts to 62.6 bn euro, or 1.2 % of GDP, in 2030.

After 2030, the development of the funding gap (Figure 2, top left) depends on the chosen scenario for debt-financing of defence spending under the exemption rule. If exemption rule borrowing is phased out rapidly (Scenario 1), defence has to be financed from the regular budget, and the funding gap rapidly increases to 4.8 % of GDP: 315 bn euro in 2040, which accounts for more than half of federal tax revenue. A gradual phaseout (Scenario 2) delays this development. Although the funding gap by 2040 is of a similar magnitude (4.6 % of GDP) to that in Scenario 1, this scenario limits the near-term consolidation burden while stabilising the debt ratio before 2040 (see below). If the exemption rule continues to be used unchanged (Scenario 3), the funding gap increases much less, to 2.7 % of GDP.

This smaller gap, however, comes at a price, as the other three panels of Figure 2 show. In Scenario 3, general government debt-to-GDP increases to 97.6 % of GDP in 2040, the deficit consistently exceeds the Maastricht reference value of 3 % of GDP, and interest payments climb to 2.9 % of GDP. In Scenario 1, by contrast, the debt ratio peaks in 2034 and then falls, the deficit drops below 3 % after 2032, and interest spending stabilises at about 2.0 % of GDP. Scenario 2 lies in between: the debt-to-GDP ratio peaks later, in 2037, at 87.3 % of GDP and then falls, the deficit drops below 3 % after 2034, and interest spending levels off at about 2.4 % of GDP towards 2040. Since debt and interest payments in Scenario 3 are still increasing at the end of the projection period, this path, too, would sooner or later have to be corrected. Continued borrowing postpones consolidation but does not avoid it. The policy choice is therefore when defence spending is financed from regular budgetary resources: through more comprehensive consolidation in the coming years, or through later consolidation that the higher interest burden

makes larger.

Figure 2: Main projection results by scenario



Note: Scenario 1: rapid phaseout of borrowing under the exemption rule (by 2037); Scenario 2: gradual phaseout; Scenario 3: no phaseout (Section 2.3). Values up to 2030 follow the federal government's financial plan 2026–2030, projection thereafter; the red dashed line marks 2030, the last year of the financial plan. Funding gap: closing item of the federal core budget minus underspending adjustments of 1.5 % of total spending after cuts (positive = consolidation need). Maastricht deficit and debt: general government. The black line marks the 3 % reference value for the deficit under the EU fiscal rules. Interest spending: federal core budget.

3.2 Determinants of the funding gap

Figure 3 decomposes the change in the funding gap between 2030 and 2040 into the contributions of individual spending and revenue items, each measured as the change in the item's GDP ratio. The funding gaps in 2030 and in 2040 for each scenario are displayed as blue columns. The left panel shows the contributions of five budget items that develop identically across all three scenarios. The three remaining panels show how endogenous increases in interest payments as well as the shift in defence spending from debt-financing to regular financing contribute differently to the size of the funding gaps in 2040, depending on the scenario.

Across all scenarios, five items contribute identically to the change in the funding gap between 2030 and 2040. On balance, the items widen the funding gap by 0.15 percentage points. Three items narrow the funding gap by a total of 0.38 percentage points: tax revenue rises slightly faster than GDP as several tax elasticities exceed one, other revenue is assumed to return from

the low level planned for 2030 to its average ratio to GDP over 2025–2030 (Section 2.1), and other spending declines slightly relative to GDP because some items grow with elasticities below one (Section 2.1).

However, two other items increase the funding gap by an even larger amount. First, regular net borrowing declines relative to GDP, mainly because the repayment of the emergency loans taken out during the COVID-19 pandemic and the energy crisis of 2022/23 increases from 2033 and is deducted from admissible borrowing. This adds 0.15 percentage points to the funding gap. Second, increases in social spending raise the funding gap by 0.38 percentage points. Federal social spending is projected to grow from 269 bn euro (5.2 % of GDP) in 2030 to 364 bn euro (5.6 % of GDP) in 2040. Almost all of the increase comes from the federal grants to the pension, health and long-term care insurance systems, which amount to 250 bn euro or 3.8 % of GDP in 2040 (see Figure B.1). The largest single item is the grant to the statutory pension insurance, which rises from 3.2 to 3.4 % of GDP as the baby boomers retire in the 2030s; the grant to the health insurance increases from 12.5 to 26.1 bn euro. These paths follow the social insurance simulations of Werding et al. (2026) and therefore depend on the assumptions of that model, in particular on the pension adjustment rule and labour force participation. Most other social spending grows proportional to GDP.

The difference in the funding gap by 2040 between the scenarios arises from the financing source of defence spending and the resulting interest payments, presented in the three panels to the right.[10] The main determinant is the type of defence financing — defence spending itself grows in line with GDP after 2030. In 2030, 83 % of defence spending is financed by borrowing under the exemption rule. When this borrowing is phased out rapidly (Scenario 1), defence spending has to be financed by regular resources — i.e. tax and other revenue as well as net borrowing — which widens the funding gap by 3.0 percentage points of GDP. In a gradual phaseout (Scenario 2), the increase in the funding gap is smaller by 2040 (2.4 points), and in Scenario 3 with no phaseout of the exemption rule, it does not occur.

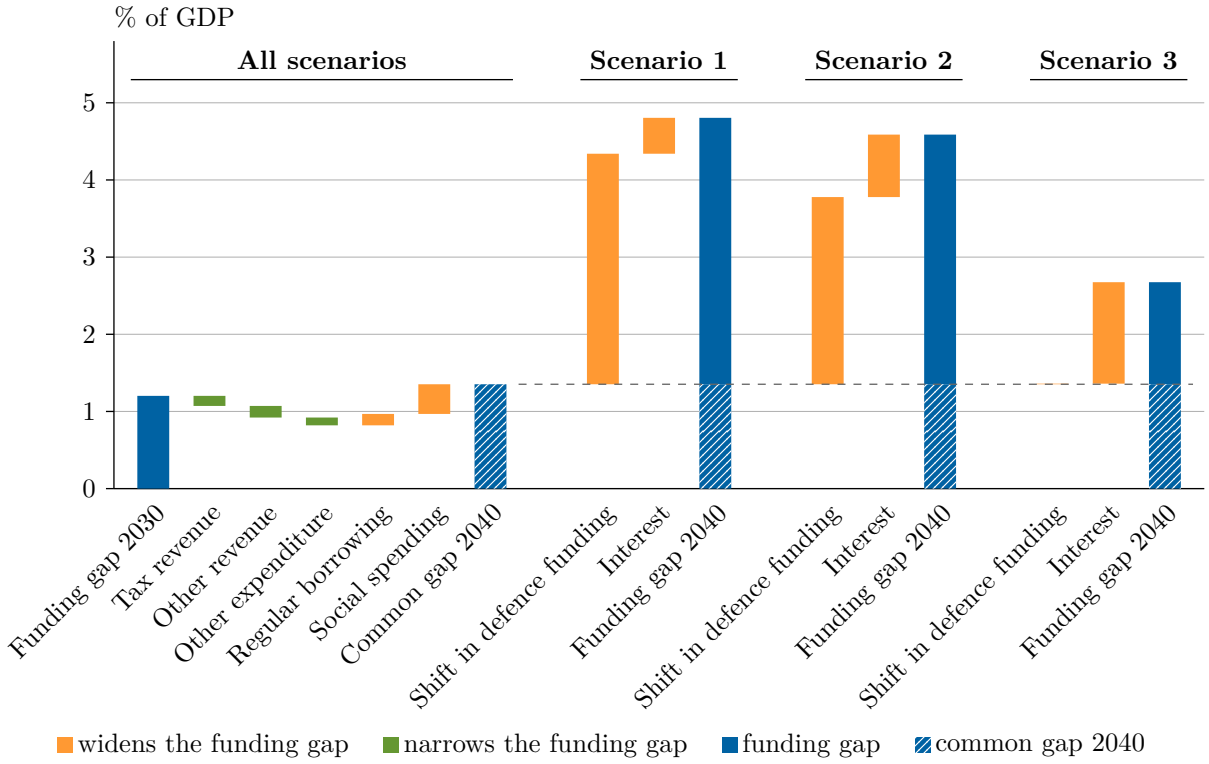
Interest is the second main driver of the funding gap: continued borrowing (Scenario 3) raises debt, and interest adds 1.3 points to the funding gap, compared to lower interest payments with 0.5 points when defence spending is no longer debt-financed (Scenario 1). Continued borrowing therefore does not remove the burden of defence. It converts part of it into interest spending.

3.3 Funding need and fiscal space

The scenarios differ not only in the size of the funding gaps but also in the total amount that the federal budget has to cover. We define the total funding need as the sum of the funding gap and borrowing under the exemption rule for defence spending (Figure 4, left panel). In 2040, it amounts to 315 bn euro (4.8 % of GDP) in Scenario 1, 337 bn euro (5.1 % of GDP) in Scenario 2 and 368 bn euro (5.6 % of GDP) in Scenario 3. The more the exemption rule for defence spending is used, the larger the need. The difference of 53 bn euro between Scenarios 3 and 1 reflects almost entirely the higher interest spending that results from continued exemption

[10] Up until 2030, defence spending rises steeply by 2.2 percentage points of GDP. However, almost all of this increase is debt-financed via the exemption rule for defence spending (2.3 points) and does not factor into the funding gap. The funding gap that nevertheless opens up by 2030 mainly stems from rising interest payments (0.9 points) and from revenue that declines relative to GDP.

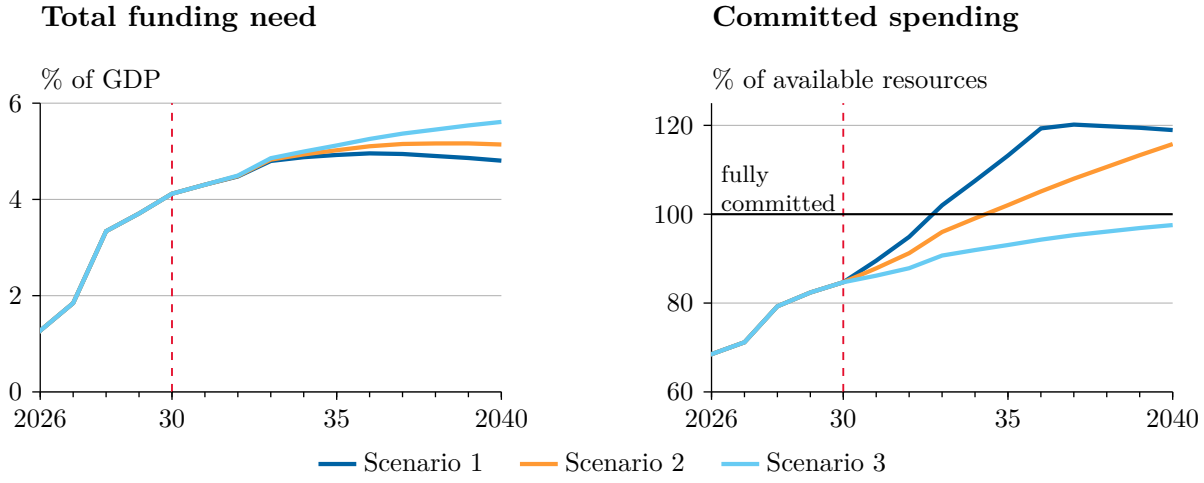
Figure 3: Decomposition of the change in the funding gap 2030–2040 by scenario



Note: Scenario 1: rapid phaseout of borrowing under the exemption rule for defence spending (by 2037); Scenario 2: gradual phaseout; Scenario 3: no phaseout (Section 2.3). Funding gap: spending of the federal core budget minus tax revenue, other revenue and admissible net borrowing, net of underspending adjustments of 1.5 % of total spending after cuts in % of GDP. The bars between the funding gap in 2030 and the common funding gap in 2040 show the contribution of each item to the change in the funding gap from 2030 to 2040, measured as the change in its ratio to GDP in percentage points. Items that develop identically in all scenarios are shown once on the left. Common funding gap 2040: the funding gap in 2040 that results from these items alone; each scenario block starts from this level (dashed line), and the dark blue, hatched part of each gap in 2040 marks it. Spending items widen the funding gap when they rise relative to GDP; revenue and borrowing items narrow it when they rise and include the underspending adjustments of 1.5 % of the spending they finance. Shift in defence funding: measured as spending in Section 14 of the federal budget, net of borrowing under the exemption rule for defence spending, i.e. the part of defence spending that has to be financed from regular resources. Since defence spending remains close to its 2030 GDP ratio, the item mainly reflects the phaseout of exemption rule borrowing.

rule borrowing: 56 bn euro in 2040 alone and 216 bn euro cumulated over the period 2031 to 2040. Continued use of the exemption rule therefore does not reduce the funding need. It converts a consolidation requirement into debt and adds the interest cost of that debt on top.

Figure 4: Total funding need and committed spending by scenario



Note: Scenario 1: rapid phaseout of borrowing under the exemption rule for defence spending (by 2037); Scenario 2: gradual phaseout; Scenario 3: no phaseout (Section 2.3). Values up to 2030 follow the federal government's financial plan 2026–2030, projection thereafter; the red dashed line marks 2030, the last year of the financial plan. Total funding need: funding gap plus net borrowing under the exemption rule for defence spending. Funding gap: closing item of the federal core budget minus underspending adjustments of 1.5 % of total spending after cuts. Committed spending: social spending, defence, civil service pensions and interest spending of the federal core budget, in % of available resources, i.e. tax revenue, other revenue and admissible net borrowing including the scenario-specific borrowing under the exemption rule for defence spending.

The same development is apparent in the ratio of committed spending to available resources. We define committed spending as social spending and spending on defence, civil service pensions and interest, as these can hardly be changed in the short term due to legal requirements. Available resources are defined as the sum of tax revenue, other revenue and admissible net borrowing including borrowing under the exemption rule for defence spending. If this ratio exceeds 100 %, spending on these four items alone exceeds the resource constraints set by fiscal rules, before any other federal task, from transport to education, is financed.

In 2025, committed spending absorbed 71 % of available resources, and 85 % in 2030 (Figure 4). In Scenario 1, the ratio exceeds 100 % from 2033 onwards and reaches 119 % in 2040. In Scenario 3, the ratio remains just below 100 % (98 % in 2040), solely because exemption rule borrowing counts towards available resources. Measured only against tax and other revenue, the committed spending amounts to 121 % in Scenario 1 and 130 % in Scenario 3 in 2040.

3.4 Robustness

The main results hold under alternative assumptions for growth and interest rates (Appendix C). Higher growth mainly reduces the projected debt-to-GDP ratio, but not the funding gap. 0.5 percentage points of additional potential growth per year lower the debt ratio in 2040 to 74.3 % in Scenario 1 and 94.0 % in Scenario 3. The funding gap, however, decreases in Scenario 1 from 4.8 to 4.5 % of GDP, as most spending items move with GDP. That it declines at all is partly due to the fact that the federal grants to the social insurance funds follow the nominal amounts

of Werding et al. (2026) and therefore fall relative to GDP when the economy grows faster (see a detailed discussion in Section 5). 0.5 percentage points less growth raise the funding gap to 5.1 % and the debt ratio to 80.9 % (Scenario 3: 101.5 %).

Interest rates affect the funding gap, but not deficit and debt, because by assumption borrowing is constrained by the fiscal rules. A parallel shift of issuance yields by ±0.5 percentage points changes the funding gap in 2040 by about a quarter of a percentage point of GDP in Scenario 1 and a third of a point in Scenario 3.

Next, we examine how strongly the development of the funding gap is tied to our assumption that most spending categories increase proportionally with GDP. Holding defence spending constant in real terms hardly changes the results. In the baseline, defence grows with nominal GDP after 2030; if it is instead frozen in real terms at its 2030 level, it reaches 3.4 instead of 3.5 % of GDP in 2040. The funding gap in 2040 is 0.16 percentage points of GDP lower in Scenario 1, in which exemption rule borrowing has ended by then. In Scenarios 2 and 3, it falls by only 0.03 points each, because exemption borrowing is tied to eligible spending above the threshold: lower defence spending mainly reduces exemption borrowing, in Scenario 3 to 183.3 bn euro in 2040, and thus debt (96.8 % instead of 97.6 % of GDP), but not the funding gap. The funding gap does not arise from a further increase in defence spending after 2030, but from the financing of the level already reached by 2030, which a freeze in real terms leaves unchanged. Even if all spending except the federal grants to the social insurance funds and interest is frozen at its nominal 2030 level — i.e. a real cut of almost a fifth by 2040 — a sizeable funding gap remains. The funding gap would amount to 3.1 % of GDP in Scenario 1 and 3.3 % in Scenario 2 in 2040 (Table C.1), as the phaseout of exemption rule borrowing and the higher interest burden outweigh the decline of the frozen items relative to GDP. In Scenario 2, the funding gap is even slightly larger than in Scenario 1: since frozen defence spending falls relative to GDP, the rising threshold ends exemption rule borrowing by 2040 in this scenario as well, while interest spending is higher due to the debt accumulated until then. In Scenario 3 the funding gap falls to 1.6 % of GDP; since the freeze also includes defence spending, exemption rule borrowing declines and the debt ratio reaches 93.6 instead of 97.6 % of GDP.

Finally, the definition of the funding gap, rather than any other assumption, is the most important determinant of its size. The projection counts all global budget items in the funding gap except underspending adjustments of 1.5 % of spending, which amount to about 9.5 bn euro in 2030. The financial plan, by contrast, classifies only 48 bn of the 72.1 bn euro (about two thirds) of global budget items in 2030 as unresolved consolidation measures, and thus treats the remaining 24 bn euro as underspending adjustments. If we take the 2030 share of two thirds as the annual funding gap, it amounts to 3.3 % of GDP in Scenario 1 in 2040 and 1.9 % in Scenario 3, instead of 4.8 and 2.7 %. However, we consider this calculation overly optimistic. It treats a third of the closing item as underspending that materialises without concrete measures, which in Scenario 1 corresponds to about 18 % of spending in 2040, far above the usual magnitude of underspending adjustments.

None of these robustness checks change our central finding. The funding gap is considerably larger when exemption rule borrowing is phased out, and continued borrowing reduces it only at the cost of higher debt and a larger interest burden.

4 Comparison with other projections

Three recent projections of German public debt are based on the reformed fiscal rules and cover a similar horizon: the Bundesbank's contribution to the reform debate of the debt brake (Deutsche Bundesbank, 2025a), a simulation of the exemption rule for defence spending and the SVIK with the macroeconometric model NiGEM by Paetz et al. (2026), and the simulation of the fiscal package in chapter 2 of the GCEE's annual report 2025/26 (GCEE, 2025), which builds on the multiplier estimates and the simulation framework of Ochsner and Zuber (2025). None of the three studies model the federal core budget line by line, so the comparison is limited to general government debt and deficits (Table 1). Our projection of a funding gap has no direct counterpart and is the core innovation of this paper.

Table 1: General government debt and deficit in 2040 in comparable projections

		2040, % of GDP	
Scenario	Treatment of the exemption rule for defence spending	Debt	Deficit
This paper			
Scenario 1	rapid phaseout by 2037	77.5	0.6
Scenario 2	gradual phaseout to 0.6 % of GDP in 2040	85.4	1.1
Scenario 3	no phaseout, continued at 2.9 % of GDP	97.6	3.5
Deutsche Bundesbank (2025a)[a]			
Current rules	no phaseout, continued at 2.5 % of GDP	~88	3.2
Reform proposal	rapid phaseout: threshold raised to 4 % of GDP by 2035	n.a.	~1
Paetz et al. (2026)[b]			
Exemption and SVIK	no phaseout, continued at 2.6 % of GDP from 2030	~91	~4
GCEE (2025), current policy scenario[c]			
Lower-bound multipliers	2.5 % of GDP in 2029, reduced to 0.5 % by 2034 and constant thereafter	82.6	n.a.
Mean multipliers	as above	82.3	n.a.

Note: (a) Deficit: structural deficit ratio. Current rules: debt ratio from Chart 2 of the study, based on a structural deficit of 4 % of GDP up to 2035 and ca. 3.2 % thereafter and nominal GDP growth of 2.6 %. (b) Scenario 1 of the study; values read from Figure 4. Additional interest spending is implicitly also financed by borrowing. (c) Debt ratio without emergency borrowing in the current policy scenario (Table 14 of chapter 2).

Under current rules, Deutsche Bundesbank (2025a) projects a structural deficit of about 4 % of GDP until the SVIK is exhausted in 2035 and of 3.2 % thereafter, with nominal GDP growth of 2.6 %. The debt ratio rises to about 88 % of GDP in 2040. This corresponds to Scenario 3 of this paper, in which the exemption is used in full and the debt ratio reaches 97.6 % in 2040. The difference of about 9 percentage points can be traced to five factors. First, exemption rule borrowing is higher after 2027: from 2030 onwards it amounts to about 2.9 % of GDP instead of the 2.5 % assumed by the Bundesbank, because the other exemption-eligible items of about 0.3 % of GDP are added to defence spending; this adds about 4.5 percentage points. Second, borrowing up to 2027 is higher, because this paper follows the financial plan 2026–2030 rather than the Bundesbank's forecast of June 2025; this adds about 3 percentage points. Third, municipal borrowing after 2027, which the Bundesbank's deficit path does not include, adds about 2 percentage points. Fourth, nominal GDP grows faster here up to 2030 but more slowly

thereafter, by about 2.3 % instead of 2.6 % per year, so that it is about 1.5 % lower in 2040; this raises the debt ratio by somewhat more than 1 percentage point. Fifth, the repayment of the emergency loans and of the special fund for the Bundeswehr from 2033 lowers the debt ratio by about 2 percentage points.

The Bundesbank's reform proposal raises the threshold above which defence spending may be debt-financed by 0.5 percentage points per year, from 1.5 % of GDP in 2030 to 4 % in 2035. From 2036 onwards, it allows additional borrowing of 0.8 % of GDP for investment, and the structural deficit amounts to about 1 % of GDP. Scenario 1 of this paper raises the threshold at the same speed; its deficit falls to 0.6 % of GDP in 2040. Applying the deficit path and growth assumption stated in the Bundesbank study yields about 70 % of GDP, compared with 77.5 % in Scenario 1. The difference of about 8 percentage points mainly reflects two factors. First, the same factors as under current rules apply (see above). Second, our phaseout starts later. The Bundesbank raises the threshold from 2030, so that exemption rule borrowing is already down to 2 % of GDP in 2030 and reaches zero in 2034, whereas in Scenario 1 it still amounts to 2.9 % of GDP in 2030 and ends only after 2036. The additional investment borrowing of the Bundesbank reform proposal from 2036 onwards partly offsets these differences.

Paetz et al. (2026) obtain a debt ratio of about 91 % of GDP in 2040 in their Scenario 1, which, like Scenario 3, continues exemption borrowing without a phaseout. Based on the values shown in their Figure 4, their deficits over 2031–2040 add up to roughly the same as here, although the paths differ: their deficit remains at about 4 % of GDP, which may partly reflect that additional interest spending is implicitly financed by borrowing in their simulation; here, borrowing follows the fiscal rules, higher interest spending widens the funding gap instead, and the deficit falls to 3.5 % by 2040. The difference in the debt ratio therefore appears to stem mainly from nominal growth: their deficit and debt paths imply nominal GDP growth of about 3.3 % per year over 2031–2040, compared with about 2.3 % here. Applied to the deficits of Scenario 3, this growth rate would also yield a debt ratio of about 91 %.

The GCEE (2025, chapter 2) simulates the general government debt ratio for two spending scenarios of the fiscal package. The indicator most comparable to this paper is the debt ratio without emergencies in the current policy scenario, evaluated at the lower bound of the fiscal multipliers estimated by Ochsner and Zuber (2025) (Table 14 of chapter 2). The annual report 2025/26 adds the output effects of the fiscal package from 2027 onwards to a reference path derived from the GCEE's projection of potential growth; this paper uses an updated version of the same projection from 2031 onwards. Among the scenarios of this paper, Scenario 1 is the closest counterpart. The annual report lowers exemption rule borrowing from 2.5 % of GDP in 2029 to 0.5 % in 2034 and holds it at that level thereafter, whereas Scenario 1 lowers it from 2.9 % in 2030 to zero in 2037. Cumulative exemption rule borrowing over 2030–2040 is therefore of similar size in both projections. Both also use the same spending path for the SVIK, which this paper takes from the annual report.

Until the mid-2030s, the two projections are close. The annual report puts the debt ratio at 76.8 % of GDP in 2030 and 83.6 % in 2035, compared with 78.4 and 83.4 % in Scenario 1. By 2040, however, the annual report reaches 82.6 % of GDP, whereas Scenario 1 reaches 77.5 %. This difference stems from the GDP deflator, which rises by 1.6 % per year in the annual report

2025/26 and by about 2 % here. Because most borrowing is set relative to GDP in both projections, higher inflation raises nominal borrowing broadly in proportion, but it lowers the ratio of the existing debt stock to GDP. Nominal GDP in 2040 is about 7 % higher in this paper, which reduces the weight of the debt inherited from 2025 accordingly. Recalculating Scenario 1 with a deflator of 1.6 % per year from 2026 onwards yields a debt ratio of 82.7 % of GDP in 2040, practically the same value as in the annual report.

The remaining differences largely offset each other over time. Up to 2035, two factors raise the debt ratio in this paper: it starts from 63.7 instead of 62.7 % of GDP (GCEE, 2025) in 2025, and borrowing is higher because it follows the financial plan, including municipal borrowing and stock-flow adjustments. Two factors work in the opposite direction. After 2035, borrowing is lower here, because exemption rule borrowing ends in Scenario 1 while the annual report keeps it at 0.5 % of GDP, and because the repayment of the emergency loans reduces admissible borrowing. In addition, real GDP grows somewhat faster here up to 2030, because this paper follows the federal government's spring projection; this lowers the debt ratio in 2040 by about 1.5 percentage points. Scenarios 2 and 3 lie above the values of the annual report, since they keep exemption rule borrowing above 0.5 % of GDP after 2035.

5 Limitations

The projection is a mechanical extrapolation under unchanged policies, and its results should be read with the following limitations in mind. First, fiscal policy change has no feedback on macroeconomic projections, since the fiscal multiplier is not modelled in the projection and is thus implicitly set to zero. Closing the funding gap via spending cuts or tax increases would dampen output in the short run, while SVIK spending may raise potential output. For the debt ratio, such feedback can be sizeable. Building on the multiplier estimates and the simulation framework of Ochsner and Zuber (2025), chapter 2 of the GCEE's annual report 2025/26 finds that an investment-oriented use of the fiscal package raises real GDP in 2040 by about 5 % above a path without output effects of the package and lowers the debt ratio by 7 to 11 percentage points relative to the current policy scenario, depending on the multiplier (GCEE, 2025). For the funding gap, however, such feedback is likely to matter much less, as the growth sensitivity check in Appendix C illustrates: 0.5 percentage points of additional potential growth per year raise GDP in 2040 by about 5 %, a gain of similar size, but lower the funding gap in Scenario 1 only from 4.8 to 4.5 % of GDP. Higher output would therefore mainly lower the debt ratio, but leave the consolidation pressure largely unchanged. This is because revenue and most spending items, including defence, are projected in proportion to GDP, so that higher output raises both sides of the budget almost in parallel. Only items that do not grow with GDP in our projections — mainly federal grants to the social insurance funds — decline relative to GDP.

Second, the federal grants to the social insurance funds follow the nominal amounts of a projection computed for a single growth path (Werding et al., 2026), so that they fall relative to GDP when growth is higher. In the pension insurance system, however, faster wage growth would raise pensions with a lag and the federal grants, which are partly indexed to wages, along with them. The growth sensitivity check therefore tends to overstate the decline of the funding gap under higher growth, which reinforces the previous point.

Third, almost all spending elasticities are set to one, because the estimated elasticities are rarely significantly different from one. A considerable share of the spending path is therefore a proportional extrapolation of the 2030 structure and does not reflect function-specific drivers such as demographic change, internal security or migration.

Fourth, issuance yields follow the financing conditions as of 22 October 2026 throughout the projection. Apart from a small premium that rises with the debt ratio and an adjustment for changes in potential growth, yields do not respond to the fiscal paths; Appendix C reports the effect of parallel shifts of the curve. Fifth, the funding gap is measured under the planned structure of the budget. Shifting spending into special funds or reclassifying items would reduce the funding gap without reducing the total funding need. Finally, the projection is based on the financial plan from July 2026 and tax estimates from May 2026. Later revisions of these sources change the starting level of the extrapolation, but not its mechanics.

6 Conclusion

This paper projects key fiscal indicators for Germany up to 2040. Its central measure is the funding gap — the amount by which projected federal spending exceeds revenue and borrowing allowed under the debt brake — which future governments will have to close through spending cuts or increases in revenue. The current financial plan already projects a considerable funding gap at 1.2 % of GDP in 2030, which will only grow more strongly in the years thereafter.

The size of the funding gap in the 2030s depends mainly on the use of the exemption rule for defence spending, which allows additional debt-financing of defence spending above 1 % of GDP. If the defence-spending exemption is phased out rapidly by 2037 (Scenario 1), the funding gap reaches 4.8 % of GDP in 2040, or about 315 bn euro. If it is phased out gradually (Scenario 2), the funding gap is at 4.6 % of GDP. If the exemption continues to be used at the planned scale of 2030 (Scenario 3), the funding gap is projected to be smaller, at 2.7 % of GDP. Instead, debt rises: the general government debt ratio reaches 97.6 % of GDP in 2040, compared to 77.5 % in Scenario 1. Continued borrowing therefore does not remove the government's funding problem. Rather, it shifts it into the future and increases it: including borrowing under the exemption, the total funding need in 2040 is 5.6 % of GDP in Scenario 3 compared to 4.8 % in Scenario 1.

The funding gap does not arise from plans for new spending. In Scenario 1, more than four fifths of its increase between 2030 and 2040 result from defence spending. By 2030, defence spending will rise, largely debt-financed, to about 3.5 % of GDP. As the exemption is phased out, defence spending increasingly has to be financed from regular income, fully so starting in 2037. If exemption rule borrowing is not phased out (Scenario 3), the pressure will shift to interest instead: interest spending of the federal budget would rise from 1.6 % of GDP in 2030 to 2.9 % in 2040, compared to 2.0 % in Scenario 1. Interest spending then accounts for most of the increase in the funding gap. The fiscal pressure starts soon. In 2028, the first year in which the financial plan relies on global savings that are not yet backed by concrete measures, the funding gap already amounts to about 0.8 % of GDP (38.7 bn euro). In Scenario 1, social spending and spending on defence, civil service pensions and interest alone exceed all income available under the fiscal rules from 2033 onwards. Higher economic growth would lower the debt ratio, but it would hardly reduce the funding gap.

References

BMF (2024). *Funktionenplan mit allgemeinen Vorschriften*. Stand: 12. November 2024. Berlin: Bundesministerium der Finanzen.

BMF (2025a). *Bundeshaushaltsplan 2026*. Anlage zum Haushaltsgesetz 2026 vom 22. Dezember 2025. Berlin: Bundesministerium der Finanzen.

BMF (2025b). *Einzelplan 32: Bundesschuld – Bundeshaushaltsplan 2025*. Berlin: Bundesministerium der Finanzen.

BMF (2025c). *Einzelplan 32: Bundesschuld – Bundeshaushaltsplan 2026*. Anlage zum Haushaltsgesetz 2026 vom 22. Dezember 2025. Berlin: Bundesministerium der Finanzen.

BMF (2025d). *Kreditbestand, Bruttokreditaufnahme, Tilgungen und Zinsen (Verzinsung) des Bundes. Zeitreihen seit 1996*. Berlin: Bundesministerium der Finanzen.

BMF (2026a). *Finanzbericht 2027: Stand und voraussichtliche Entwicklung der Finanzwirtschaft im gesamtwirtschaftlichen Zusammenhang*. Berlin: Bundesministerium der Finanzen.

BMF (2026b). *Haushalts- und Finanzpläne*. Website of the Bundesministerium der Finanzen.

BMF (2026c). *Kreditaufnahmebericht des Bundes 2025: Kreditaufnahme des Bundes und seiner Sondervermögen im Jahr 2025*. Berlin: Bundesministerium der Finanzen.

BMF (2026d). *Vorläufiger Abschluss von Bundeshaushalt, KTF und SVIK 2025*. Januar 2026. Berlin: Bundesministerium der Finanzen.

BMWE and BMF (2026). *Gesamtwirtschaftliches Produktionspotenzial und Konjunkturkomponenten: Datengrundlagen und Ergebnisse der Schätzungen der Bundesregierung*. Frühjahrsprojektion der Bundesregierung vom 22. April 2026. Berlin: Bundesministerium für Wirtschaft und Energie und Bundesministerium der Finanzen.

BRH (2025). *Information über die Entwicklung des Einzelplans 32 (Bundesschuld) für die Beratungen zum Bundeshaushalt 2026*. Bericht nach § 88 Absatz 2 BHO an den Haushaltsausschuss des Deutschen Bundestages. Bonn: Bundesrechnungshof.

Bundesregierung (2022). *Unterrichtung durch die Bundesregierung: Finanzplan des Bundes 2022 bis 2026*. Drucksache 20/3101. Berlin: Deutscher Bundestag.

Bundesregierung (2024). *Unterrichtung durch die Bundesregierung: Finanzplan des Bundes 2024 bis 2028*. Drucksache 20/12401. Berlin: Deutscher Bundestag.

Bundesregierung (2026a). *Entwurf eines Gesetzes über die Feststellung des Bundeshaushaltsplans für das Haushaltsjahr 2027 (Haushaltsgesetz 2027 – HG 2027)*. Drucksache 21/7300. Berlin: Deutscher Bundestag.

Bundesregierung (2026b). *Unterrichtung durch die Bundesregierung: Finanzplan des Bundes 2026 bis 2030*. Drucksache 21/7301. Berlin: Deutscher Bundestag.

Bundesrepublik Deutschland (2025a). *Gesetz zur Änderung des Grundgesetzes (Artikel 109, 115 und 143h)*.

Bundesrepublik Deutschland (2025b). *Gesetz zur Errichtung eines Sondervermögens Infrastruktur und Klimaneutralität (SVIKG)*. BGBl. 2025 I Nr. 230.

Deutsche Bundesbank (2018). "Die Maastricht-Schulden: methodische Grundlagen sowie die Ermittlung und Entwicklung in Deutschland". In: *Monatsbericht* April 2018, pp. 59–81.

Deutsche Bundesbank (2025a). *Wie die Schuldenbremse weiterentwickelt werden könnte – ein Beitrag der Bundesbank zur Reformdiskussion*. Frankfurt am Main.

Deutsche Bundesbank (2025b). "Wie sich die Maastricht-Schulden von den finanzstatistischen Schulden unterscheiden". In: *Monatsbericht* April 2025.

Deutsche Bundesbank (2026a). *Bruttogesamtschuldenstand des Staates (Maastricht-Abgrenzung) – Deutschland*. Zeitreihe BBGFS1/Q.BQ9059.

Deutsche Bundesbank (2026b). *Tägliche Zinsstruktur für börsennotierte Bundeswertpapiere: Svensson-Methode und abgeleitete Renditen für Restlaufzeiten von 1 bis 30 Jahren*.

Deutsche Finanzagentur (2023). *Bund stellt Programm für inflationsindexierte Anleihen ein*. Pressemitteilung 8/2023, 22. November 2023. Frankfurt am Main.

Deutsche Finanzagentur (2026). *Umlaufende Bundeswertpapiere*. Frankfurt am Main.

GCEE (2025). *Jahresgutachten 2025/26, Kapitel 2: Zusätzlichkeit und Investitionsorientierung des Sondervermögens verbessern*. Wiesbaden: Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung.

GCEE (2026). *Jahresgutachten 2026/27*. Medium-term projection. Berlin: Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung.

Landesverfassungsgericht Sachsen-Anhalt (2025). *Leitsätze zum Urteil vom 30. Juni 2025 – LVG 13/24*. Dessau-Roßlau.

Ochsner, Christian and Christopher Zuber (2025). *Output, prices and public debt under the new German fiscal consensus*. GCEE Working Paper 01/2025. Berlin: Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung.

OECD (2023). *Revenue Statistics 2023: Tax Revenue Buoyancy in OECD Countries 1965–2022*. Paris: OECD Publishing.

Paetz, Christoph, Katja Rietzler, and Sebastian Watzka (2026). *Durch Bereichsausnahme Verteidigung könnte deutsche Schuldenquote auf über 90 % des BIP steigen*. IMK Policy Brief 207. Düsseldorf: Institut für Makroökonomie und Konjunkturforschung (IMK) der Hans-Böckler-Stiftung.

Poghosyan, Tigran (2012). *Long-run and short-run determinants of sovereign bond yields in advanced economies*. IMF Working Paper WP/12/271. Washington, DC: International Monetary Fund.

Statistisches Bundesamt (2026a). *Einnahmen, Ausgaben und Schulden der Extrahaushalte der staatlichen Ebene 2022–2025*. Wiesbaden: Statistisches Bundesamt.

Statistisches Bundesamt (2026b). *Schulden des Öffentlichen Gesamthaushalts 2025*. Statistischer Bericht. Wiesbaden: Statistisches Bundesamt.

Unabhängiger Beirat des Stabilitätsrates (2026). *25. Stellungnahme zur Sitzung des Stabilitätsrats am 11. Mai 2026*. Stellungnahme. Berlin.

Werding, Martin, Anina Harter, Philipp Hauber, Tim Hermann, Lenard Holler, Peter Kreß, Theresa Neef, Christian Ochsner, Veronika Püschel, Charlotte Rochell, Benedikt Runschke, Milena Schwarz, and Christopher Zuber (2026). *Alterungsschub und Sozialbeiträge: Simulationen zu GKV und Pflegeversicherung*. GCEE Working Paper 01/2026. Berlin: Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung.

Appendix A Data and methodology

A.1 Spending

Spending in the core budget is projected using the functional classification (*Aufgabenbereiche*) of the federal budget plans (BMF, 2026b; e.g. Table 7 in Bundesregierung, 2024). This classification is based on the federal functional plan (BMF, 2024) and is partly aligned with, but not identical to, the departmental structure of the budget (Table A.3). Realised values for 2025 are taken from the financial report 2027 (BMF, 2026a). Unlike earlier plans, the financial plan 2026–2030 no longer contains a complete breakdown by function (Bundesregierung, 2026b). Spending up to 2027 is therefore allocated to functions on the basis of the budget plans; see Tables A.1 and A.2 (BMF, 2025a; Bundesregierung, 2026a). From 2028, the figures of the financial plan are used where available; functions for which the plan contains no information are extrapolated with nominal potential output and the respective elasticity.

Table A.1: Classification of federal expenditure (part 1 of 2)

No.	Category	Assignment	Exceptions and special rules
Social spending			
3.3.1.1	Pension insurance	Functions 221, 222, 226	
3.3.1.2	Labour market	Functions 225, 251–259	
3.3.1.3	Family benefits	Functions 231, 232, 235, 237, 263, 271–280	
3.3.1.4	Housing allowance	Function 233	
3.3.1.5	Housing construction premium	Function 412	
3.3.1.6	Social compensation	Function 241	
3.3.1.7	Compensation for victims of Nazi persecution	Functions 243, 244, 249	
3.3.1.8	Agricultural social policy	Chapter 1001	before 2012: Section 10 + keyword search
3.3.1.9	Statutory health insurance	Chapter 1501	
3.3.1.10	Long-term care insurance	Function 227	
3.3.1.11	Old-age basic income support and support for persons with reduced earning capacity	Function 282, title 63602	
3.3.1.12	Other social measures	Functions 211–299	excluding categories 3.3.1.1 to 3.3.1.11
Defence			
3.3.2.1	Military defence	Section 14	excluding functions 33, 38, 39
3.3.2.2	Other defence burdens	Function 33	
Food, agriculture and consumer health protection			
3.3.3.1	Consumer health protection and nutrition	Chapters 1002, 1017	
3.3.3.2	Agricultural structure and coastal protection[1]	Functions 521, 623, 625	
3.3.3.3	Sustainability, research and innovation	Section 10 + chapters 1005, 1013–1016; alternatively keyword search	excluding function 521
3.3.3.4	Other measures in agriculture and forestry	Section 10 + functions 522, 523, 531, 532; 511 and 512 only with keyword search	excluding function 521; excluding research, innovation and consumer protection items
Other functions			
3.3.4	Economic promotion and energy	Functions 631, 632, 634, 635, 638, 641–643, 649, 651, 652, 680–689, 691, 692; additionally Section 9 with function 165	
3.3.5	Transport	Section 12, functions from 600	
3.3.6	Construction and urban development[1]	Functions 411, 419, 421, 422, 423	

Note: (1) Values available from 2013. (2) Values available from 2008.

Table A.2: Classification of federal expenditure (part 2 of 2)

No.	Category	Assignment	Exceptions and special rules
Research, technology and space			
3.3.7.1	Science, research and development outside universities[1]	Functions 137, 162–165, 167; additionally Section 30 + keyword search	excluding Section 9 with function 165; excluding university, vocational training and student support items
3.3.7.2	Universities	Functions 132, 133, 134, 138, 139	
3.3.7.3	Student support and support for young researchers	Functions 141, 142	
3.3.7.4	Vocational training and other areas of education	Section 30 + functions 100–159; additionally functions 127–129, 144, 145, 152–155 and Section 30 + keyword search	defined exclusions within functions 100–159
Other functions			
3.3.9	Cultural affairs	Functions 24, 153, 181–188, 195	
3.3.10	Environmental protection (excl. KTF)	Functions 331, 332, 341, 342	excluding the Climate and Transformation Fund
3.3.11	Sport	Function 322	
3.3.12	Internal security and migration[1]	Functions 42, 45, 47, 219	
3.3.13	Economic cooperation and development	Section 23	excluding chapters 2311 and 2312
General financial administration			
3.3.14.1	Interest	Chapter 3205	
3.3.14.2	Civil service pensions (excl. railways and postal services)[2]	Functions 18, 38, 39, 48, 68	before 2006 excluding function 39, supplemented by keyword search; railway and postal items excluded
3.3.14.3	Successor institutions of the Treuhandanstalt	Keyword search	different search logic before and from 2012
3.3.15	Transfers to special funds from the core budget	Title 63401 in chapter 6002; additionally Section 60 + keyword search	

Note: (1) Values available from 2013. (2) Values available from 2008.

Spending not covered by the functional classification, mainly in Section 60 (general financial administration), is carried as a residual item. It equals total planned spending minus the listed functions and minus the global budget items. It amounts to 51 bn euro in 2030 and grows with lagged nominal GDP from 2031 ("other spending" in Table A.3). The global budget items themselves are not part of the spending path; they form the closing item. Some payments are not counted as spending at all: as in the federal budget, EU own resources and certain payments to the German states (regionalisation funds, supplementary federal grants, the compensation for the motor vehicle tax and consolidation aid) are deducted from tax revenue (Appendix A.2).

These large blocks are projected with item-specific assumptions. Defence spending grows with lagged nominal GDP from its 2030 level; other exemption rule-eligible items (civil protection, intelligence services, IT security and aid to states under attack) are projected in the same way. Federal grants to the pension, health and long-term care insurance systems follow the nominal path projected by Werding et al. (2026). Interest payments are derived from the bond portfolio model described in Appendix A.3. All other functions f are projected from 2031 with

$$G_{f,t} = G_{f,t-1} \left(\frac{Y_{t-1}}{Y_{t-2}} \right)^{\varepsilon_f}, \tag{1}$$

where $G_{f,t}$ denotes nominal spending of function f, Y_t nominal GDP and ε_f the spending elasticity. Since federal spending is planned one year in advance, spending growth is linked to GDP growth of the previous year. The elasticity is estimated from

$$\ln\left(\frac{G_{f,t}}{G_{f,t-1}} \right) = \varepsilon_f \ln\left(\frac{Y_{t-1}}{Y_{t-2}} \right) + u_t \tag{2}$$

without a constant. The starting point is an elasticity of one, i.e. spending grows in proportion to nominal GDP. An estimated coefficient replaces this value only if it differs significantly from one, i.e. if the p-value of the test of $\varepsilon_f = 1$ is below 0.1; otherwise $\varepsilon_f = 1$. To limit the influence of extreme estimates, elasticities are restricted to the interval $[0, 2]$. Five functions deviate from proportional growth. Transport (0.22) and economic cooperation and development (0.26) grow less than proportionally, and the housing construction premium, social compensation and other social measures are held constant in nominal terms. Table A.3 reports the projected spending by function.

We are not aware of a breakdown of the functional classification by investment. The projection therefore cannot track the investment ratio directly. In 2030 the financial plan provides for an adjusted investment ratio of 10.1 % (Bundesregierung, 2026b, Table 3). Since most categories grow in proportion to GDP from 2031, the composition of spending, and thus roughly also the investment ratio, stays close to its 2030 level.

Table A.3: Federal expenditure by function, Scenario 1 (bn euro)

	2025	2030	2040	Rule from 2031
Pension insurance	118.9	164.5	222.2	Werding et al. (2026)
Labour market	52.4	49.5	62.6	1.00
Family benefits	15.1	13.0	16.5	1.00
Housing allowance	2.5	1.4	1.7	1.00
Housing construction premium	0.2	0.2	0.2	0.00
Social compensation	0.4	0.4	0.4	0.00
Compensation for victims of Nazi persecution	2.4	1.1	1.5	1.00
Agricultural social policy	4.1	4.1	5.2	1.00
Statutory health insurance	18.3	12.5	26.1	Werding et al. (2026)
Long-term care insurance	0.5	0.1	1.4	Werding et al. (2026)
Old-age basic income support	11.8	15.8	19.9	1.00
Other social measures	9.2	6.9	6.9	0.00
Military defence	59.4	174.7	221.2	1.00 from 2030 level
Other defence burdens	10.5	0.0	0.0	1.00
Food, agriculture, consumer protection	1.7	2.7	3.4	1.00
Economic promotion and energy	27.7	27.1	34.4	1.00
Transport	31.2	24.7	26.0	0.22
Construction and urban development	4.4	5.1	6.4	1.00
Science, research and education	31.0	28.4	36.0	1.00
Cultural affairs	2.9	3.3	4.2	1.00
Environmental protection (excl. KTF)	2.5	3.1	3.9	1.00
Sport	0.3	0.4	0.5	1.00
Internal security, migration	15.8	14.1	17.9	1.00
Economic cooperation and development	10.2	9.2	9.7	0.26
Transfers to special funds	9.9	0.0	0.0	1.00
Interest (Chapter 3205)	29.9	80.7	132.2	portfolio model
Civil service pensions	12.9	13.4	17.0	1.00
Successor institutions of the Treuhandanstalt	0.5	0.0	0.0	1.00
Other expenditure	6.5	51.2	64.8	1.00

Numbers in the last column are expenditure elasticities with respect to lagged nominal GDP. 2025: actual outcome; 2030: financial plan; 2040: projection. Military defence follows the functional classification and excludes the civil service pensions booked in Section 14 (about 11.9 bn euro in 2040); the defence figures in the main text and in Appendix B include them.

A.2 Revenue and net borrowing

For the years up to 2030, the projection adopts the revenue figures of the financial plan (Bundesregierung, 2026b), which are based on the May 2026 tax estimate. Federal tax revenue consists of nine separately projected components (Table A.4): wage tax (*Lohnsteuer*), assessed income tax (*veranlagte Einkommensteuer*), non-assessed taxes on earnings (*nicht veranlagte Steuern vom Ertrag*), flat-rate withholding tax (*Abgeltungsteuer*), corporate income tax (*Körperschaftsteuer*), the global minimum tax (*Mindeststeuer*), VAT (*Umsatzsteuer*), the trade tax apportionment (*Gewerbesteuerumlage*) and federal taxes (*Bundessteuern*). As in the federal budget, EU own resources (*EU-Eigenmittel*), regionalisation funds, supplementary federal grants to the German states (*Bundesergänzungszuweisungen*), the compensation for the transfer of the motor vehicle tax (*Kompensation Kfz-Steuer*) and consolidation aid (*Konsolidierungshilfen*) are deducted, and the effects of planned tax law changes are included. Each component is projected with its own elasticity with respect to nominal GDP. Unlike spending, revenue is linked to GDP growth of the same year, because it largely depends on current economic activity. The elasticities are calibrated on OECD (2023): 1.11 for wage tax, assessed income tax and withholding tax, 1.21 for non-assessed taxes on earnings, corporate income tax and the trade tax apportionment, and zero for the minimum tax, whose revenue is held constant in nominal terms. VAT, federal taxes, the deductions and the planned tax law changes are projected with an elasticity of one. For VAT, a one-to-one relation with nominal GDP holds in theory as long as spending patterns do not change with income; the higher OECD estimate reflects past tax law changes and shifts in the composition of GDP, from which the projection abstracts. With an elasticity of one for all components, tax revenue in 2040 would be 551.1 bn euro instead of 559.5 bn euro, about 0.1 % of GDP lower.

Table A.4: Federal tax revenue by component, Scenario 1 (bn euro)

	2030	2040	Elasticity	% of GDP 2040
Wage tax	142.7	184.4	1.11[a]	2.81
Assessed income tax	39.5	51.0	1.11[a]	0.78
Non-assessed taxes on earnings	17.2	22.7	1.21[a]	0.35
Flat-rate withholding tax	11.1	14.3	1.11[a]	0.22
Corporate income tax	15.1	20.0	1.21[a]	0.30
Global minimum tax	0.1	0.1	0.00	0.00
Value added tax	180.4	227.3	1.00	3.47
Trade tax apportionment	3.1	4.1	1.21[a]	0.06
Federal taxes	107.8	135.8	1.00	2.07
Total federal taxes before deductions	517.0	659.7		10.06
Deductions (EU own resources, transfers to Länder)	-79.6	-100.3	1.00	-1.53
Tax revenue of the federal government	437.4	559.5		8.53

Note: Federal shares of shared taxes. Elasticities with respect to same-year nominal GDP. [a]Calibrated on OECD (2023); the other elasticities are set: the global minimum tax is held constant in nominal terms, and value added tax, federal taxes and the deductions grow in proportion to GDP. Deductions include planned tax law changes.

Admissible net borrowing of the core budget follows the components of the debt brake (Article 115(2) of the Basic Law; Appendix A.3). Up to 2030 the values of the financial plan are used. From 2031 the structural component of 0.35 % of the nominal GDP of two years earlier is

fully used, the cyclical component is zero because the output gap is closed, and the balance of financial transactions is set to zero. Admissible borrowing is reduced by the repayment of the emergency loans of the pandemic and the energy crisis, about 1.65 bn euro in 2031 and 2032 and about 11.8 bn euro per year from 2033 (BMF, 2026d), with the start of the repayment of the pandemic loans in 2033 taken from Bundesregierung (2026b). Borrowing under the exemption rule for defence spending is measured relative to the nominal GDP of two years earlier, the reference value of the threshold above which exemption rule-eligible spending may be debt-financed. In Scenario 3 the threshold remains at 1 %: eligible spending up to 1 % of GDP is financed from the regular budget and the excess is fully debt-financed. In Scenarios 1 and 2 the threshold is raised by 0.5 and 0.25 percentage points per year, respectively, from 2031 onwards. Exemption borrowing therefore falls from its 2030 value of 3.1 % of the GDP of two years earlier by roughly the same amount each year, to zero from 2037 in Scenario 1 and to 0.6 % in 2040 in Scenario 2, and a growing share of defence spending is financed from the regular budget.

The borrowing and repayment of the special funds and the other extra-budgetary entities are described in Appendix A.3.

A.3 Debt and interest

This subsection states the debt and interest block as implemented in the model. As before, years are indexed by t, nominal GDP is Y_t, and all stocks are end-of-year values in bn euro. Interest rates and coupons are in percent. Parameters are given with their baseline values. Up to 2030, all flows of the core budget are taken from the financial plan; the equations below describe the projection from 2031 onwards.

Net borrowing. Admissible net borrowing of the core budget follows the components of the debt brake in Article 115(2) of the Basic Law and the Article 115 Act (G 115):

$$N_t = 0.0035\, Y_{t-2} \;-\; 0.203\, G_t \;-\; F_t \;+\; B_t \;-\; R_t. \tag{3}$$

The first term is the structural component of 0.35 % of GDP. It refers to Y_{t-2} because Article 115-Law relates the limit to nominal GDP of the year preceding the preparation of the budget. G_t is the nominal output gap and 0.203 the budget semi-elasticity of the cyclical component, as in the federal government's cyclical adjustment procedure; since the output gap is assumed to be closed from 2030, this component is zero in the projection. F_t is the balance of financial transactions, which the Basic Law excludes from the debt brake; it is set to zero from 2031 because no financial transactions are planned beyond the financial plan. B_t is borrowing under the exemption rule for defence spending, and R_t the repayment of the emergency loans of the pandemic and the energy crisis under the repayment plans required by Article 115(2) of the Basic Law (1.65 bn euro in 2031 and 2032, 11.78 bn euro per year from 2033), which reduces admissible borrowing as in the financial plan. Borrowing under the defence exemption follows one of three scenarios, which differ in how much of the exemption-eligible spending is debt-financed after 2030 (Section 2.3). As in the reform proposal of Deutsche Bundesbank (2025a), the scenarios are defined as paths for the threshold above which eligible spending may be debt-financed. In Scenario 3 the threshold remains at 1 % of GDP, as under current law. In Scenario 2 it rises by

0.25 percentage points per year from 2031, and in Scenario 1 by 0.5 percentage points per year, so that in Scenario 1 it exceeds eligible spending from 2037 onwards and exemption borrowing ends.

Under Article 115(2) of the Basic Law, exemption-eligible spending E_t^{BA} comprises defence spending including the pensions booked in Section 14, civil protection, the intelligence services, the protection of IT systems and assistance to states attacked in violation of international law. Like the structural borrowing limit, the threshold refers to the GDP of the year preceding the budget preparation, Y_{t-2}. Borrowing under the exemption in scenario s is therefore

$$B_t^s = \max\bigl(0,\; E_t^{\mathrm{BA}} - \tau_t^s\, Y_{t-2}\bigr), \qquad \tau_t^s = 0.01 + \Delta^s \max(0,\, t - 2030), \tag{4}$$

where τ_t^s is the threshold, as a share of Y_{t-2}, above which eligible spending is debt-financed in scenario s, and Δ^s is its annual increase from 2031 onwards, with $\Delta^1 = 0.005$, $\Delta^2 = 0.0025$ and $\Delta^3 = 0$. In Scenario 3 the threshold thus remains at the legal 1 % of GDP, so that B_t grows with exemption-eligible spending.

For example, exemption-eligible spending in 2032 amounts to about 4.1 % of the GDP of 2030. With the threshold at 1 % in Scenario 3, 3.1 % of GDP is debt-financed; with 1.5 % in Scenario 2, 2.6 %; and with 2 % in Scenario 1, 2.1 %. With GDP of about 5 200 bn euro in 2030, this corresponds to about 160, 134 and 108 bn euro. The difference to Scenario 3 has to be financed from the regular budget.

Debt of the federal government. The debt of the core budget, D_t^K, and of the three special funds whose interest is modelled, D_t^j with $j \in \{\mathrm{SVIK}, \mathrm{BW}, \mathrm{KTF}\}$ (SVIK: special fund for infrastructure and climate neutrality, BW: special fund for the Bundeswehr, KTF: climate and transformation fund), evolve as

$$D_t^K = D_{t-1}^K + N_t + C_t + V_t, \tag{5}$$

$$D_t^j = D_{t-1}^j + L_t^j - R_t^j, \tag{6}$$

$$D_t^O = D_{t-1}^O - 0.39, \tag{7}$$

where D_t^O is the debt of the other extra-budgetary entities (Financial Market Stabilisation Fund, Economic Stabilisation Fund, Investment and Repayment Fund (ITF) and others). C_t and V_t capture changes in federal debt that do not result from net borrowing of the core budget. C_t is the change in cash loans from the non-public sector and in debt from various federal programmes, which the Federal Statistical Office counts as federal debt (Statistisches Bundesamt, 2026b); their ratio to GDP is assumed to decline by 0.02 percentage points per year. V_t is the change in reserves of the special funds recorded in the financial plan up to 2030. L_t^j and R_t^j are the borrowing and repayment of the special funds, which have their own credit authorisations outside the debt brake. The SVIK borrows in line with the outflow rates assumed by the GCEE (2025); its repayment begins in 2044 at the latest (§ 11(3) SVIKG; Bundesrepublik Deutschland, 2025b), outside the projection horizon. The Bundeswehr fund is assumed to borrow until 2027, almost exhausting its credit authorisation (BMF, 2026c), and to be repaid in equal annual instalments from 2033 (§ 8 BwFinSVermG; Bundesregierung, 2026b). The KTF has no debt of its own.

For lack of repayment plans, the debt of the other extra-budgetary entities is held constant in nominal terms, except for the ITF, which is assumed to be repaid at its historical average rate (BMF, 2025d; Statistisches Bundesamt, 2026a).

The model distinguishes three debt concepts. Federal debt in the budgetary definition, D_t^B, is the debt of the core budget and the special funds as reported in the budget statistics. Federal debt in the securities definition, D_t^S, is the nominal volume of all outstanding federal securities, including those retained by the Finance Agency; it is the stock on which coupons are paid and therefore the basis of the interest block. Maastricht debt, D_t^M, defined below, covers general government according to the European system of accounts. The first two are linked by

$$D_t^B = D_t^K + \sum_j D_t^j + D_t^O, \qquad D_t^S = D_t^B + \Delta^S, \qquad \Delta^S = 133.3, \tag{8}$$

where Δ^S is the difference between the nominal volume of outstanding federal securities at the end of 2025 (1 973.9 bn euro; Deutsche Finanzagentur, 2026) and federal debt as reported by the Federal Statistical Office (1 840.6 bn euro; Statistisches Bundesamt, 2026b). The difference mainly reflects the federal government's own holdings of securities, which the Federal Statistical Office does not count as debt, as well as cash advances and other definitional differences between the two statistics. Δ^S is held constant at its 2025 value.

General government. The debt of the German states (D^L), the municipalities (D^G) and the social security funds (D^{SV}) follows

$$D_t^L = D_{t-1}^L + 0.0035\, Y_{t-2}, \qquad D_t^G = 0.061\, Y_t \;\; (t \geq 2030), \qquad D_t^{SV} = D_{t-1}^{SV}. \tag{9}$$

The German states as a whole are assumed to fully use the structural borrowing allowance of 0.35 % of GDP that Article 109(3) of the Basic Law has granted them since 2025, consistent with the assumption for the federal government. Municipalities are not subject to the debt brake; their net borrowing is set at 29, 28, 27 and 26 bn euro in 2026–2029, and from 2030 their debt is held at its 2030 ratio to GDP. The social security funds finance themselves through contributions and federal grants and are assumed not to borrow. General government debt D_t, Maastricht debt D_t^M and the Maastricht deficit ratio def_t are

$$D_t = D_t^B + D_t^L + D_t^G + D_t^{SV}, \qquad D_t^M = D_t + K_t, \qquad \mathrm{def}_t = \frac{D_t^M - D_{t-1}^M - S_t}{Y_t}. \tag{10}$$

K_t is the correction to the Maastricht definition, which mainly reflects the rerouting of transactions of public institutions that are not directly classified to the general government sector (Deutsche Bundesbank, 2018) (184.4 bn euro in 2025). Its ratio to GDP is raised by about 0.2 percentage points above its 2025 level in 2026 and 2027 and from 2028 the level is held constant at 207.7 bn euro. S_t is the stock-flow adjustment, i.e. debt-financed transactions with a financial counterpart that raise debt but not the deficit (25, 35, 34.5, 26.1 and 11.3 bn euro in 2025–2029, zero thereafter). The values up to 2029 are lower than those in the Federal Ministry of Finance's fiscal projection, which are implausibly high (Unabhängiger Beirat des Stabilitätsrates, 2026). The Maastricht debt ratio in % is $d_t = 100\, D_t^M / Y_t$.

Issuance and yields. The bond portfolio consists of all outstanding federal securities and of the securities issued in each projection year. Each security i is described by its issue year a_i, its maturity year m_i, its nominal value n_i in bn euro and its coupon r_i in %. Modelling the portfolio security by security captures that higher yields affect interest spending only gradually, as maturing securities are refinanced.

The securities that mature in year t have to be repaid. Their nominal value, the redemptions of the year, is

$$M_t = \sum_{i:\, m_i = t,\; a_i < t} n_i, \tag{11}$$

i.e. the sum of the nominal values of all securities i whose maturity year is t and that were issued in an earlier year. To repay these securities and, in addition, raise the securities stock from D^S_{t-1} to D^S_t, the federal government issues new securities with a nominal value of

$$I_t = \max(0,\; D^S_t - D^S_{t-1} + M_t). \tag{12}$$

The lower bound of zero applies if the securities stock falls by more than the redemptions.

It is split into new securities with maturity $\ell \in \{1, 2, 5, 7, 10, 15, 30, 10^{\text{ILB}}\}$, where 10^{ILB} denotes ten-year inflation-linked securities, with nominal values $n_{t,\ell} = \omega_{\ell,t}\, I_t$. The issuance shares $\omega_{\ell,t}$ follow the observed structure in 2025 and 2026 and the issuance plan of the Finance Agency in 2027 and 2028, which places larger shares in one- and two-year securities (about 35 and 27 %); from 2029 they are 29, 21, 19, 3, 22, 0, 6 and 0 %, the last because inflation-linked securities are no longer issued (Deutsche Finanzagentur, 2023). Since federal securities are issued close to par, the coupon of a new nominal security is set to the par yield of its maturity in its issue year,

$$r_{t,\ell} = y(\ell, t) = s(\ell) + \delta_t + \gamma_t, \qquad t \geq 2027, \tag{13}$$

where $s(\ell)$ is the Bundesbank par-yield curve of 22 October 2026 (Deutsche Bundesbank, 2026b), which rises from 2.96 % at one year to 3.42 % at ten years and 3.71 % at thirty years (Figure A.1, left panel). The current curve is used for all future issue years, so that the projection contains no forecast of interest rates. δ_t and γ_t are two level adjustments that are the same for all maturities. The debt premium

$$\delta_t = 0.02 \, \max(0,\; d_t - d_{2026}) \tag{14}$$

raises yields by 2 basis points per percentage point by which the Maastricht debt ratio exceeds its 2026 level, the long-run effect of the debt ratio on sovereign bond yields in advanced economies estimated by Poghosyan (2012). Only the increase above 2026 is priced, because the current curve already reflects the current debt level. In 2040 the premium amounts to 0.22 percentage points in Scenario 1 and 0.62 percentage points in Scenario 3. The growth coupling

$$\gamma_t = \theta \left[\, 100 \, (g_t - g_{2026}) \,\right], \qquad \theta = 0.45, \tag{15}$$

where g_t is the real potential growth rate, links yields to potential growth. Following Poghosyan (2012), who estimates that a 1 percentage point higher potential growth raises long-run sovereign

bond yields by about 45 basis points, $\theta = 0.45$.[11] Only deviations from 2026 enter, because growth expectations at that time are already priced in the current curve. In the baseline, γ_t lies between -0.01 and -0.09 percentage points. For the 2025 and 2026 cohorts, the observed volume-weighted coupons of the respective cohort replace (13) for maturities of two years and more. One-year securities are treated like coupon securities with the one-year yield as coupon. This also captures the cost of Treasury discount paper (Bubills), which dominate this segment and pay no coupon but are issued at a discount. The coupon of inflation-linked securities is $\max(0,\ y(10,t) - 2)$, i.e. the nominal ten-year yield minus expected inflation at the ECB's target of 2 %. The interest rate scenarios add ± 0.25 or ± 0.5 percentage points to the coupons of all securities issued from 2027; the coupons of outstanding securities are fixed.

Interest payments. Coupon payments in year t include the full annual coupon of securities outstanding throughout the year and a fraction w of the coupon of securities issued in t; securities redeemed in t, i.e. those counted in M_t, contribute the fraction $1 - w$:

$$Z_t^c = \sum_{i:\, a_i < t < m_i} \frac{n_i r_i}{100} \;+\; w \sum_{i:\, a_i = t} \frac{n_i r_i}{100} \;+\; (1-w) \sum_{i:\, m_i = t,\, a_i < t} \frac{n_i r_i}{100}, \qquad w = 0.25. \tag{16}$$

Federal securities pay their coupons annually in arrears, and the budget books interest when it is paid. The first coupon of a new security is therefore mostly paid only in the year after issue; $w = 0.25$ approximates the small share that is already paid in the year of issue. In return, a maturing security contributes only the remaining share $1 - w$ of its annual coupon in its year of maturity. Over its lifetime, each security thus pays exactly as many annual coupons as its maturity in years; the weights only shift part of one coupon between its first and its last year. Total interest spending on the portfolio is

$$Z_t = Z_t^c + \pi_t\, D_{t-1}^{\mathrm{ILB}} + 0.002801\, I_t + \mu\, \Sigma_t, \tag{17}$$

with the following components. $\pi_t D_{t-1}^{\mathrm{ILB}}$ is the inflation compensation on the stock of inflation-linked securities at the beginning of the year, D_{t-1}^{ILB}. It is booked every year, because the budget makes annual allocations for the final payments on these securities instead of paying the compensation at maturity. π_t is the growth rate of the GDP deflator (2 % from 2031; 2.75 % up to 2030). The third term covers the other interest items (cash management, money market, equalisation claims). Since these costs scale with the volume of financing, they are set at 0.2801 % of gross issuance, the ratio of the planned spending under titles 575 21, 575 12 and 573 14 of Chapter 3205 to gross issuance in 2025 (BMF, 2025b,c). $\mu = 0.3237$ percentage points is the planning mark-up: the federal government budgets interest spending with a margin for fluctuations in interest rates. μ is calibrated by minimising the absolute deviations of the modelled interest spending from the figures of the financial plan up to 2030; it is therefore not an independently estimated risk premium. It applies to the securities issued from 2027, whose nominal value outstanding in year t, weighted as in (16) and divided by 100, is Σ_t.

[11] In the model, γ_t is additionally multiplied by the phase-in factor $1 - e^{-\lambda(t-2025)}$ with $\lambda = 0.15$.

Interest of the core budget. The interest spending of the core budget is derived in two steps. First, the stock inside the original perimeter of Chapter 3205, the debt of the core budget and of the SVIK, whose debt service is financed from the core budget, $P_t = D_t^K + D_t^{\text{SVIK}}$, is separated from the remaining stock, $Q_t = D_t^{\text{BW}} + D_t^{\text{KTF}} + D_t^O + \Delta^S$, with $P_t + Q_t = D_t^S$. Because the federal government finances all its debt through one securities portfolio, the interest on each part of the stock is not observed and is allocated in proportion to the stock. The interest attributed to the stock outside the perimeter is

$$Z_t^Q = Z_t^c \frac{Q_t - D_t^O}{D_t^S} + 0.007372\, D_t^O, \tag{18}$$

that is, the average portfolio coupon on the Bundeswehr fund, the KTF and the retained securities, and a fixed rate of 0.7372 % on the legacy debt of the other extra-budgetary entities (FMS, WSF, ITF). This rate is calibrated so that the interest on this stock matches the interest projected for these entities (BRH, 2025). Since this debt is no longer increased, it is not refinanced at current yields in the model. The interest on the stock inside the perimeter is total interest spending (17) minus the part attributed to the stock outside it,

$$Z_t^P = Z_t - Z_t^Q - \mu\, \Sigma_t \frac{Q_t}{D_t^S}. \tag{19}$$

Only the coupons and the planning mark-up are split between the two stocks; the inflation compensation and the other interest items are booked in full in Chapter 3205.

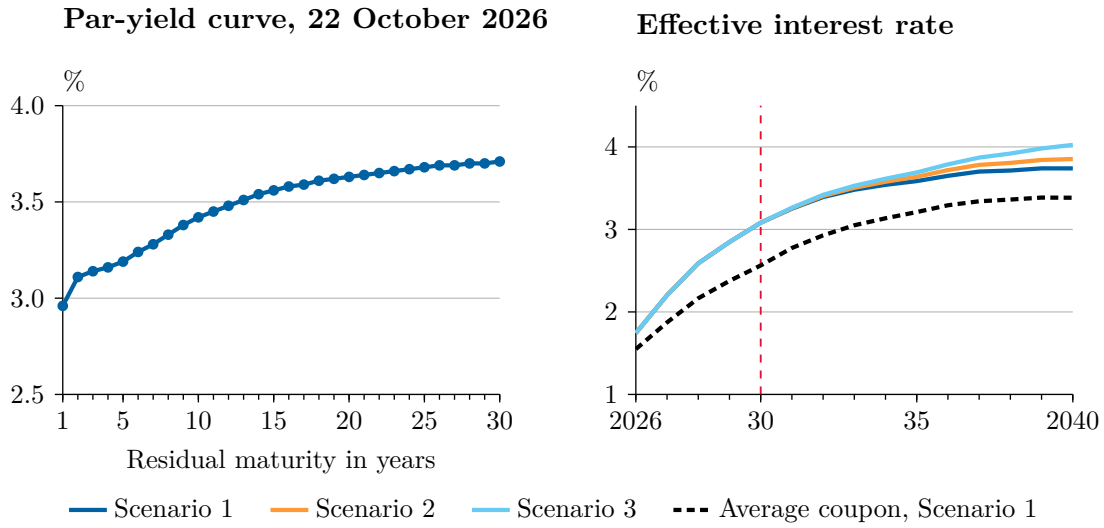
Second, from 2028 onwards, after the dissolution of the Bundeswehr fund, the financial plan books the interest on its debt in Chapter 3205 as well. The interest spending of the core budget reported in the tables and figures of this paper is therefore

$$Z_t^{3205} = \begin{cases} \text{actual outcome (2025) and financial plan (2026–2030)}, & t \le 2030, \\ Z_t^P + Z_t^c \dfrac{D_t^{\text{BW}}}{D_t^S}, & t \ge 2031, \end{cases} \tag{20}$$

where the planned figures include the interest on the Bundeswehr fund from 2028, and the projection adds it, allocated with the average portfolio coupon, in every year. The interest ratio in the tables and figures is Z_t^{3205}/Y_t. The effective interest rate, i.e. total interest spending on the portfolio relative to the securities stock of the previous year, Z_t/D_{t-1}^S, is not affected by this allocation (Figure A.1, right panel). It rises from 3.1 % in 2030 to 3.7 % in 2040 in Scenario 1 and 4.0 % in Scenario 3 as securities issued before 2022 mature; the difference between the scenarios reflects the debt premium and the larger issuance volume.

Since N_t in (3) does not depend on interest spending and the closing item of the core budget absorbs any change in Z_t^{3205}, the debt block and the interest block are recursive. This reflects the asymmetric treatment described in Section 2: higher interest raises the funding gap, not borrowing. The only feedback runs from the debt ratio to the yields through δ_t.

Figure A.1: Yield curve and effective interest rate on federal debt



Note: Left: par yields of federal securities estimated by the Deutsche Bundesbank (Svensson method) for residual maturities of one to 30 years, as of 22 October 2026. The curve determines the issuance yields of all new federal securities from 2027 in the projection, adjusted for the debt ratio, potential growth and a calibrated planning mark-up. Right: effective interest rate, i.e. total interest spending in % of the previous year's debt stock in the securities definition; besides coupon payments, it includes the planning mark-up, the indexation of inflation-linked securities, and other interest items. Average coupon: coupon interest in % of the end-of-year stock of federal securities, Scenario 1. The scenarios differ in the amount of new borrowing issued at current market yields. Scenario 1: rapid phaseout of borrowing under the exemption rule for defence spending (by 2037); Scenario 2: gradual phaseout; Scenario 3: no phaseout (Section 2.3). The red dashed line marks 2030, the last year of the financial plan.

Appendix B Detailed results by scenario

Tables B.1 to B.3 report the main projected figures for the three scenarios up to 2040, namely selected federal spending items, revenue, net borrowing, the funding gap, and general government deficit and debt ratios. Figure B.1 shows the composition of the spending path before consolidation.

Table B.1: Projection results, Scenario 1 (rapid phaseout of exemption borrowing)

	2026	2027	2028	2030	2032	2034	2036	2038	2040
Nominal GDP	4 596.4	4 768.9	4 910.2	5 205.4	5 445.1	5 695.7	5 961.3	6 249.1	6 557.6
Federal core budget, bn euro									
Expenditure path before consolidation	533.3	566.3	635.7	707.5	768.7	817.3	861.3	901.6	942.2
Defence (Section 14)	82.2	109.0	153.2	183.6	193.8	202.8	212.1	222.2	233.1
Other expenditure under the exemption	18.6	21.0	18.0	17.3	18.2	19.1	19.9	20.9	21.9
Interest (core budget)	30.3	41.9	55.2	80.7	102.4	117.2	126.4	130.5	132.2
Social spending	242.3	239.3	252.9	269.3	291.2	309.0	327.0	345.2	364.5
Available resources	524.5	555.4	588.2	635.4	623.5	589.1	561.7	586.5	617.8
Tax revenue	387.2	394.8	406.6	437.4	458.9	481.4	505.4	531.4	559.5
Net borrowing	98.0	118.7	148.8	167.4	124.5	65.7	12.4	9.1	10.1
of which under the defence exemption	57.6	85.4	125.3	151.8	108.0	58.5	4.2	0.0	0.0
Funding gap	0.9	2.6	38.7	62.6	135.8	219.4	291.2	306.3	315.1
Percent of GDP									
Funding gap	0.02	0.05	0.79	1.20	2.49	3.85	4.89	4.90	4.81
Interest (core budget)	0.66	0.88	1.12	1.55	1.88	2.06	2.12	2.09	2.02
Maastricht deficit (general government)	4.1	4.6	4.6	4.9	3.5	2.2	0.9	0.7	0.6
Maastricht debt (general government)	66.8	69.6	72.8	78.4	82.6	83.8	82.4	80.1	77.5

Note: Values up to 2030 follow the federal government's financial plan 2026–2030; from 2031 onwards projection. The funding gap is the global spending cut required to close the core budget net of underspending adjustments, i.e. the closing item minus underspending adjustments of 1.5 % of total expenditure after cuts (positive = consolidation need).

Table B.2: Projection results, Scenario 2 (gradual phaseout of exemption borrowing)

	2026	2027	2028	2030	2032	2034	2036	2038	2040
Nominal GDP	4 596.4	4 768.9	4 910.2	5 205.4	5 445.1	5 695.7	5 961.3	6 249.1	6 557.6
Federal core budget, bn euro									
Expenditure path before consolidation	533.3	566.3	635.7	707.5	769.6	821.4	871.4	918.9	964.8
Defence (Section 14)	82.2	109.0	153.2	183.6	193.8	202.8	212.1	222.2	233.1
Other expenditure under the exemption	18.6	21.0	18.0	17.3	18.2	19.1	19.9	20.9	21.9
Interest (core budget)	30.3	41.9	55.2	80.7	103.3	121.3	136.5	147.7	154.7
Social spending	242.3	239.3	252.9	269.3	291.2	309.0	327.0	345.2	364.5
Available resources	524.5	555.4	588.2	635.4	649.5	643.5	647.1	650.8	654.1
Tax revenue	387.2	394.8	406.6	437.4	458.9	481.4	505.4	531.4	559.5
Net borrowing	98.0	118.7	148.8	167.4	150.6	120.2	97.8	73.3	46.4
of which under the defence exemption	57.6	85.4	125.3	151.8	134.0	112.9	89.7	64.2	36.3
Funding gap	0.9	2.6	38.7	62.6	110.3	168.2	214.6	258.4	300.8
Percent of GDP									
Funding gap	0.02	0.05	0.79	1.20	2.03	2.95	3.60	4.14	4.59
Interest (core budget)	0.66	0.88	1.12	1.55	1.90	2.13	2.29	2.36	2.36
Maastricht deficit (general government)	4.1	4.6	4.6	4.9	4.0	3.1	2.4	1.7	1.1
Maastricht debt (general government)	66.8	69.6	72.8	78.4	83.3	86.1	87.2	87.0	85.4

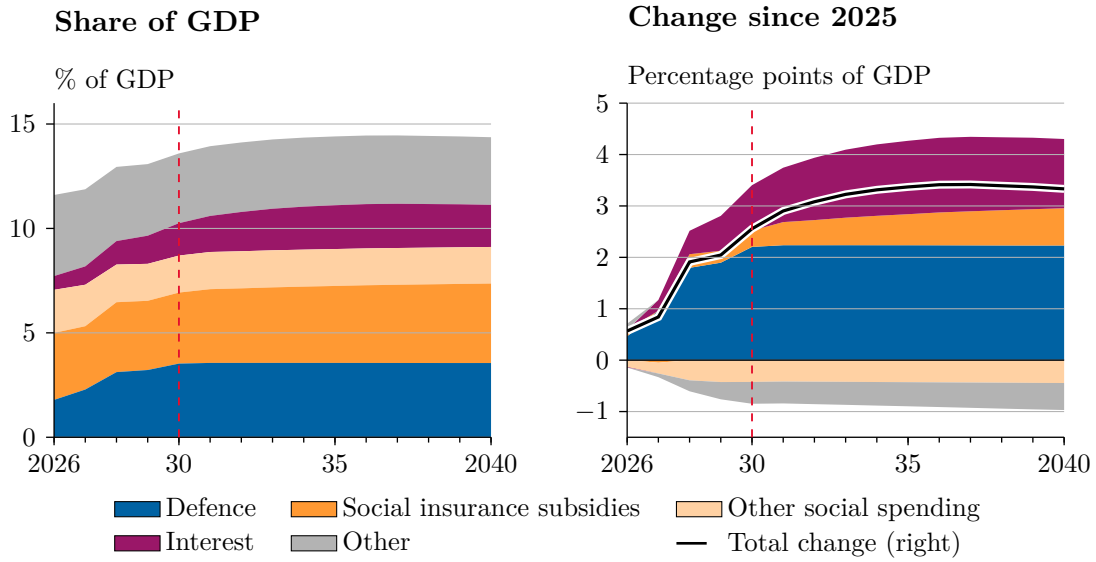
Note: Values up to 2030 follow the federal government's financial plan 2026–2030; from 2031 onwards projection. The funding gap is the global spending cut required to close the core budget net of underspending adjustments, i.e. the closing item minus underspending adjustments of 1.5 % of total expenditure after cuts (positive = consolidation need).

Table B.3: Projection results, Scenario 3 (no phaseout of exemption borrowing)

	2026	2027	2028	2030	2032	2034	2036	2038	2040
Nominal GDP	4 596.4	4 768.9	4 910.2	5 205.4	5 445.1	5 695.7	5 961.3	6 249.1	6 557.6
Federal core budget, bn euro									
Expenditure path before consolidation	533.3	566.3	635.7	707.5	770.4	825.6	881.8	938.8	997.9
Defence (Section 14)	82.2	109.0	153.2	183.6	193.8	202.8	212.1	222.2	233.1
Other expenditure under the exemption	18.6	21.0	18.0	17.3	18.2	19.1	19.9	20.9	21.9
Interest (core budget)	30.3	41.9	55.2	80.7	104.2	125.5	146.8	167.6	187.9
Social spending	242.3	239.3	252.9	269.3	291.2	309.0	327.0	345.2	364.5
Available resources	524.5	555.4	588.2	635.4	675.6	698.0	732.6	770.0	810.3
Tax revenue	387.2	394.8	406.6	437.4	458.9	481.4	505.4	531.4	559.5
Net borrowing	98.0	118.7	148.8	167.4	176.6	174.6	183.3	192.5	202.6
of which under the defence exemption	57.6	85.4	125.3	151.8	160.0	167.4	175.1	183.5	192.5
Funding gap	0.9	2.6	38.7	62.6	84.8	117.1	138.2	157.2	175.4
Percent of GDP									
Funding gap	0.02	0.05	0.79	1.20	1.56	2.06	2.32	2.52	2.67
Interest (core budget)	0.66	0.88	1.12	1.55	1.91	2.20	2.46	2.68	2.87
Maastricht deficit (general government)	4.1	4.6	4.6	4.9	4.5	4.1	3.8	3.6	3.5
Maastricht debt (general government)	66.8	69.6	72.8	78.4	84.0	88.5	92.1	95.1	97.6

Note: Values up to 2030 follow the federal government's financial plan 2026–2030; from 2031 onwards projection. The funding gap is the global spending cut required to close the core budget net of underspending adjustments, i.e. the closing item minus underspending adjustments of 1.5 % of total expenditure after cuts (positive = consolidation need).

Figure B.1: Federal spending before consolidation by block, Scenario 1



Note: Federal core budget spending before consolidation, i.e. before the global spending reductions that close the budget. Left: ratio of each block to GDP. Right: change in this ratio relative to 2025, in percentage points; total: change in total spending before consolidation. Defence: Section 14 of the federal budget including pensions. Social insurance subsidies: federal grants and other payments to the pension, health and long-term care insurance. Other social spending: labour market, family benefits, old-age basic income support and other social measures. Interest: interest spending of the federal core budget. Other: all remaining spending, including the remaining civil service pensions. Scenario 1: rapid phaseout of borrowing under the defence exemption (by 2037; Section 2.3); the composition differs across scenarios only in interest spending. Values up to 2030 follow the federal government's financial plan 2026–2030, projection thereafter; the red dashed line marks 2030, the last year of the financial plan.

Appendix C Sensitivity analyses

Figure C.1 and the upper panel of Table C.1 show sensitivity checks for assumptions on growth. Real potential growth is shifted by ±0.25 and ±0.50 percentage points per year from 2031; the path up to 2030 and the GDP deflator remain unchanged, so that nominal GDP in 2040 is about 2.5 or 5 % higher or lower than in the baseline. Revenue, most spending items and the borrowing limits move with GDP, whereas the federal grants to the social insurance funds follow the nominal amounts of Werding et al. (2026) and therefore fall relative to GDP when growth is higher. Through the growth coupling (see equation (15)), higher growth also raises issuance yields. 0.5 percentage points of growth therefore changes the funding gap in 2040 by only about 0.3 percentage points of GDP, but the debt ratio by 3.2 to 3.9 points. The deficit ratio hardly changes; it even rises slightly with higher growth, because municipal debt is held at a constant ratio to GDP and the repayments are fixed in nominal terms.

To assess the sensitivity to interest rates, issuance yields are shifted in parallel by ±0.25 and ±0.50 percentage points for all cohorts from 2027. Since interest spending of the core budget is fixed at the financial plan figures up to 2030, the shift appears in the core budget from 2031, with the accumulated effect of all shifted cohorts since 2027. A change in yields affects only the interest ratio and the funding gap; deficit and debt remain unchanged because they are determined by the given net borrowing.

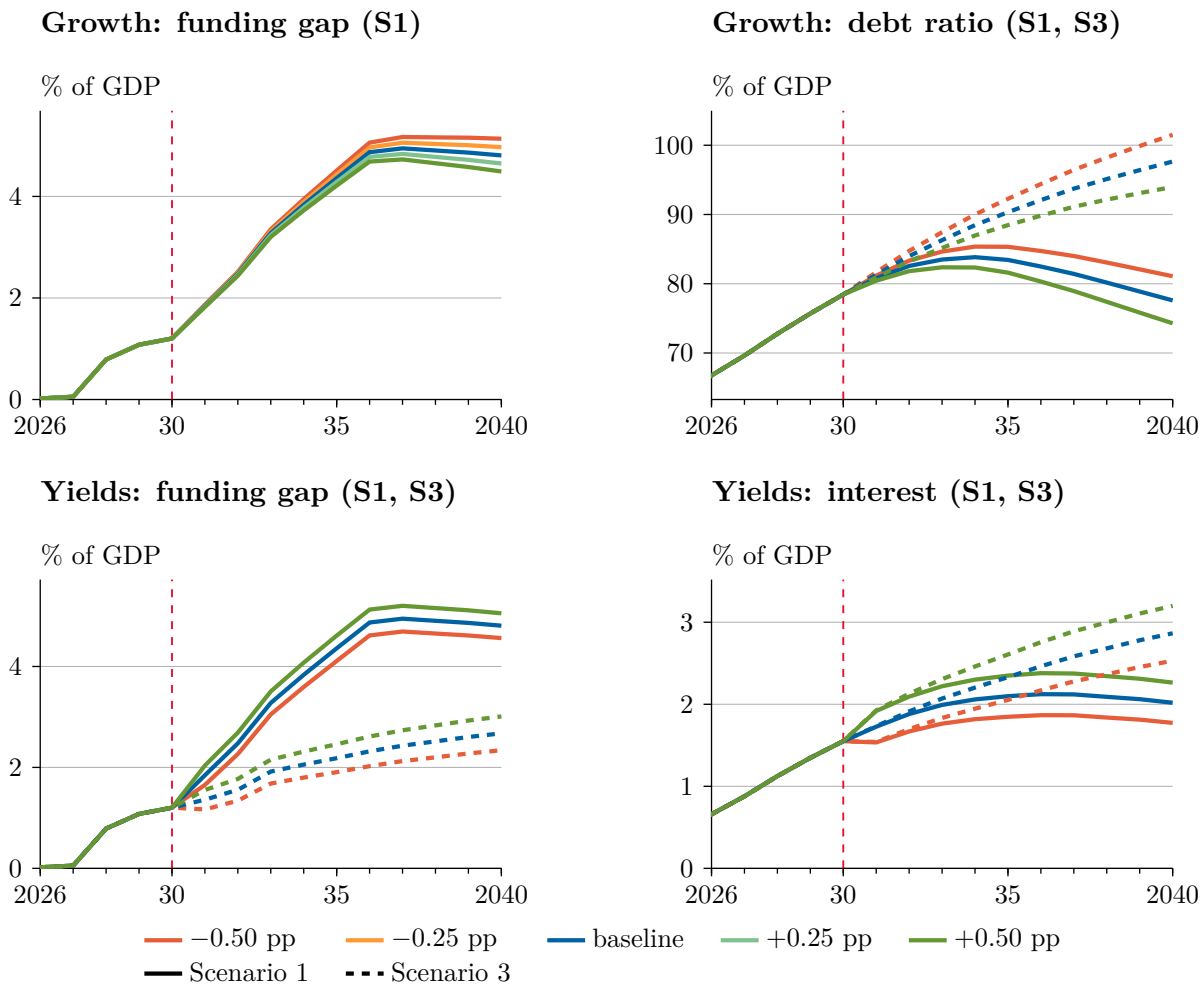
We conduct three additional checks for variations in defence spending, a freeze of most spending items and the definition of the funding gap. If defence spending is held constant in real terms at its 2030 level from 2031, i.e. grows with the GDP deflator instead of nominal GDP, defence spending in 2040 is 9.2 bn euro lower, and the funding gap falls by 0.16 percentage points of GDP in Scenario 1 and by 0.03 points each in Scenarios 2 and 3. Since exemption rule borrowing declines with the lower eligible spending, the deficit and the debt ratio in 2040 fall to 1.0 and 84.6 % of GDP in Scenario 2 and to 3.4 and 96.8 % in Scenario 3; in Scenario 1, the debt ratio falls slightly to 77.2 %. If all federal spending except the federal grants to the social insurance funds and interest is frozen at its nominal 2030 level from 2031, including defence, the funding gap in 2040 amounts to 3.1 % of GDP in Scenario 1, 3.3 % in Scenario 2 and 1.6 % in Scenario 3. Since exemption rule borrowing declines with the frozen eligible spending in all scenarios and ends by 2040 in Scenario 2, the deficit and the debt ratio in 2040 fall to 0.6 and 81.6 % of GDP in Scenario 2 and to 2.8 and 93.6 % in Scenario 3; in Scenario 1, the debt ratio falls to 76.4 %, while the deficit is unchanged. If, as in the financial plan for 2030, two thirds of the closing item are counted as the funding gap in every year from 2031 instead of deducting underspending adjustments of 1.5 % of spending, the funding gap falls to 3.3 and 1.9 % of GDP in Scenarios 1 and 3. Like the yield shifts, this variant leaves deficit and debt unchanged (Table C.1).

Table C.1: Sensitivity of the 2040 results to growth, interest rates, defence spending and the definition of the gap

	Scenario 1			Scenario 2			Scenario 3		
	Gap	Def.	Debt	Gap	Def.	Debt	Gap	Def.	Debt
Potential growth p.a., deviation from baseline in pp									
−0.50	5.13	0.55	80.9	4.93	1.09	89.0	2.99	3.50	101.5
−0.25	4.97	0.57	79.2	4.76	1.12	87.2	2.83	3.51	99.6
baseline	4.81	0.59	77.5	4.59	1.14	85.4	2.67	3.53	97.6
+0.25	4.65	0.61	75.9	4.42	1.17	83.7	2.52	3.54	95.8
+0.50	4.49	0.63	74.3	4.26	1.19	82.0	2.37	3.55	94.0
Issuance yields, parallel shift in pp									
−0.50	4.56	0.59	77.5	4.31	1.14	85.4	2.34	3.53	97.6
−0.25	4.68	0.59	77.5	4.45	1.14	85.4	2.51	3.53	97.6
baseline	4.81	0.59	77.5	4.59	1.14	85.4	2.67	3.53	97.6
+0.25	4.93	0.59	77.5	4.73	1.14	85.4	2.84	3.53	97.6
+0.50	5.05	0.59	77.5	4.87	1.14	85.4	3.01	3.53	97.6
Defence from 2031									
with nominal GDP (baseline)	4.81	0.59	77.5	4.59	1.14	85.4	2.67	3.53	97.6
fixed in real terms (2030 level)	4.65	0.59	77.2	4.56	1.00	84.6	2.64	3.39	96.8
Spending except federal grants to social insurance and interest from 2031									
baseline	4.81	0.59	77.5	4.59	1.14	85.4	2.67	3.53	97.6
frozen in nominal terms (2030 level)	3.06	0.59	76.4	3.30	0.59	81.6	1.58	2.78	93.6
Definition of the funding gap from 2031									
Baseline: 1.5 % underspending adjustments	4.81	0.59	77.5	4.59	1.14	85.4	2.67	3.53	97.6
Plan's split: 2/3 of closing item	3.29	0.59	77.5	3.15	1.14	85.4	1.90	3.53	97.6

Note: All values in % of GDP in 2040. Gap: funding gap of the federal core budget (positive = consolidation need). Def. and debt: general government deficit and debt, Maastricht definition. Baseline: closing item minus residual cuts of 1.5 % of total expenditure after cuts. Plan's split: two thirds of the closing item are counted as the gap, the share of unresolved consolidation measures in the global budget items of the 2030 financial plan (48 of 72.1 bn euro). Yield shifts and the definition of the gap leave deficit and debt unchanged because net borrowing is set by the fiscal rules. Fixing defence in real terms lowers debt in all scenarios and the deficit in Scenarios 2 and 3, because exemption borrowing is limited to exemption-eligible spending above the threshold and falls with defence spending. Frozen: all federal spending except the federal grants to the social insurance funds and interest held at its nominal 2030 level from 2031, including defence, which lowers exemption borrowing in all scenarios.

Figure C.1: Sensitivity to potential growth and issuance yields



Note: Top: real potential growth shifted from 2031 by the indicated percentage points per year; the path up to 2030 is unchanged. Bottom: parallel shift of the yields on newly issued federal securities by the indicated percentage points. The funding gap panel for growth shows all four variants for Scenario 1; the other panels show −0.50 pp, baseline and +0.50 pp for Scenario 1 (solid) and Scenario 3 (dashed). Scenario 1: rapid phaseout of borrowing under the exemption rule for defence spending (by 2037); Scenario 3: no phaseout (Section 2.3). Funding gap: closing item of the federal core budget minus underspending adjustments of 1.5 % of total spending after cuts. Debt ratio: Maastricht debt of general government. Interest: interest spending of the federal core budget. A shift in yields leaves deficit and debt unchanged because net borrowing is set by the fiscal rules. The red dashed line marks 2030, the last year of the financial plan.