# 5

# POPULATION AGEING SURGE AND PENSION REFORMS

This is a translated version of the original German-language chapter "Alterungs-schub und Rentenreformen", which is the sole authoritative text. Please cite the original German-language chapter if any reference is made to this text.

# KEY MESSAGES

↘ Due to demographic ageing, pension policy must urgently address the trade-off between adequate retirement provision and its sustainable financing, in order to prevent a constantly increasing burden on working-age people in young and future generations.

↘ The financial burden involved in German statutory pension insurance (GRV) can be reduced by linking the retirement age to further life expectancy, and by introducing a new type of funded pension plans; however, both will only have an effect in the long term.

↘ In order to reduce financial burdens in the short term, further reforms would have to be bundled, e.g. an increase in the sustainability factor, or a price indexation of pensions after award, combined with a progressive assessment of pension benefits.

# SUMMARY

In Germany, **demographic ageing is entering** an acute phase with the retirement of the baby boomers. Under the current law, there is a risk of a **reduction in the benefit level** and a **sharp increase in contribution rates to statutory pension insurance** ('Gesetzliche Rentenversicherung', GRV). The rising burden of pensions for civil servants is also increasingly narrowing the financial scope in public budgets. No single measure will be enough to overcome the GRV's pronounced financing problems. Rather, a bundling of several reform options is required, and in each case, questions arise concerning the inter- and intragenerational distribution of the demographically induced financial burdens, to which policy-makers must find answers.

The first core element of a reform of the GRV should be to **link the statutory retirement age to further life expectancy.** In the case of such an extension of working lives, targeted hardship rules should ensure that due consideration is given to insured people whose health is impaired. Introducing a new form of **supplementary funded pensions outside the GRV** is a **second core element.** Only in this way can retirement provision be partially detached from persistently unfavourable demographic developments. Both reform options would improve the financial viability of pensions in a sustainable fashion, but only have an effect in the long term. In the **short term, sizeable effects for unburdening the GRV** can be achieved by **strengthening the sustainability factor** applying to annual benefit upratings or by introducing price indexation for pensions after award. A combination of these reforms with a graduated assessment of pension entitlements according to income (**progressive benefit assessment**) **can cushion social hardship.** Higher levels of immigration and an increase in employment, e.g. among women, temporarily ease the burden on the GRV. A **reform of widow's and widower's pensions** can increase work incentives for second earners and take some of the pressure off pension funds.

**Expanding the group of insured people** by including **civil servants** in the GRV cannot solve its financing problems. However, it would have the advantage of making the financial burdens associated with civil servants' pensions **more transparent** and ensuring that **reforms of the GRV are always passed on with the same effect. Compulsory insurance for the self-employed** involving a free choice of instruments can contribute to relieving pressures on the GRV in the short to medium term, and close pension gaps for the self-employed. However, the unburdening effects will decline as soon as the first cohorts reach retirement age.
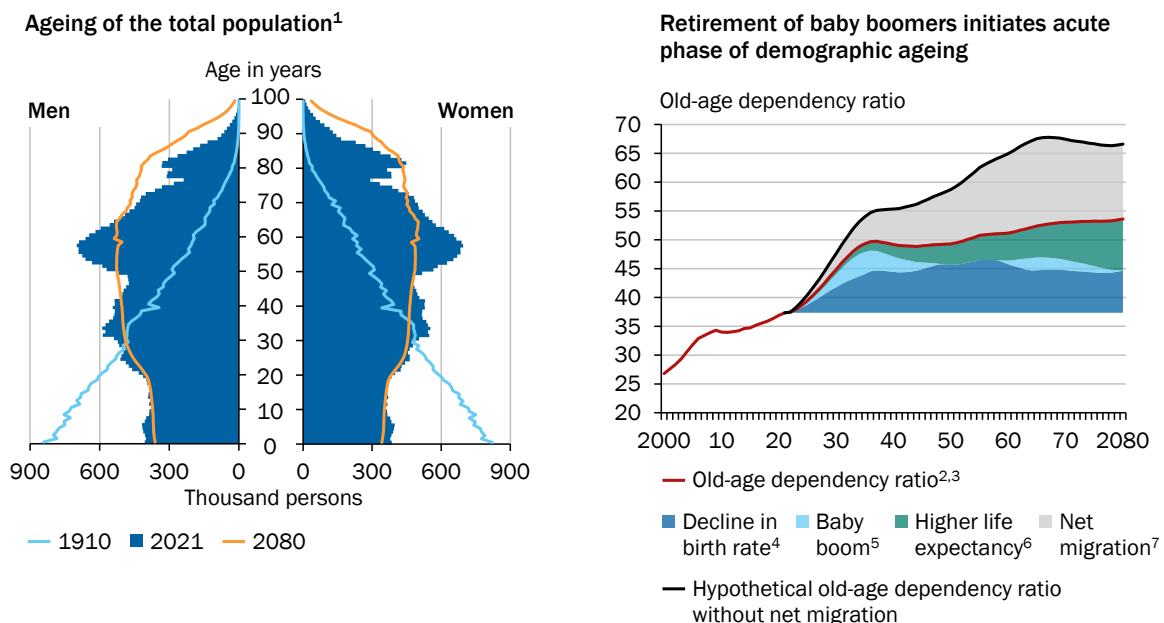
# I. INTRODUCTION: AGEING PUTS PENSION FINANCES UNDER PRESSURE

359. Lower birth rates and rising life expectancy are leading to a **surge in population ageing in many advanced economies**. This is putting pressure on pay-as-you-go pension systems. **In Germany, demographic ageing has paused in the past decade**. In addition, the increase in the retirement age since 2012 and the positive development on the labour market provided some financial relief for statutory pension insurance (GRV). This temporary **improvement in the GRV's financial situation was used to expand GRV benefits**. Key elements were the old-age pensions for the long-term insured ↘ ITEM 369 and the Mothers' Pension I (GCEE Annual Report 2020 items 678 ff.). The 2018 pension package introduced a 'double stop line' ↘ ITEM 368 and the Mothers' Pension II. These reforms have put a strain on pension finances (Werding, 2016; Werding and Läpple, 2022).

After the demographic respite has come to an end, ↘ GLOSSARY an **acute phase of demographic ageing is now beginning in Germany**. The baby boomers of the 1950s and 1960s are reaching retirement age, while the war and post-war cohorts before them were small. This **poses a fast-growing financing problem**

↘ CHART 109

**Age pyramid and decomposition of the development of the old-age dependency ratio**

**Ageing of the total population[1]**

Age in years

Men          Women



900  600  300  0    0  300  600  900
Thousand persons

— 1910   ■ 2021   — 2080

**Retirement of baby boomers initiates acute phase of demographic ageing**

Old-age dependency ratio



2000  10  20  30  40  50  60  70  2080

— Old-age dependency ratio[2,3]

■ Decline in birth rate[4]   ■ Baby boom[5]   ■ Higher life expectancy[6]   ■ Net migration[7]

— Hypothetical old-age dependency ratio without net migration

1 – Reference date 31.12.  2 – The old-age dependency ratio is the ratio of people aged 65 and older to 100 people aged 20 to 64.  3 – Reference scenario based on the composition of the population in 2022 and assumptions of the medium variant on birth rate (G2), life expectancy (L2) and net migration (W2 with 293,000 persons on average for all years in the projection period) based on the 15th Coordinated Population Projection.  4 – Effect of the decline in the birth rate in the 1970s.  5 – Additional effect of baby boom. First spike represents additional population due to baby boom, and second spike represents their offspring.  6 – Effect of the increase in life expectancy at birth.  7 – Effect of net immigration.

Sources: Federal Statistical Office, Human Mortality Database, SIM.21, own calculations
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**for the** pay-as-you-go **GRV**. ↘ ITEM 367 This problem is not mainly a result of the amounts of future pension expenditure, either in absolute terms or in relation to gross domestic product (GDP). Rather, it arises from the pay-as-you-go method of financing this expenditure, with ever-growing tensions between the contribution rates required and the benefit entitlements accrued. This leads to strong effects for the intergenerational distribution and to major risks for the development of employment, as well as for the future economic dynamics in Germany.

360. The **age structure of Germany's population is shifting as a result of low birth rates and increasing life expectancy** (Statistisches Bundesamt, 2023a). In Germany, the total fertility rate ↘ GLOSSARY has been below the population maintenance level of 2.1 children per woman since 1970. Life expectancy at birth has risen from 50 years in 1910 to 81 years today. As a result, the proportion of people of retirement age is rising steadily, even though the statutory retirement age is currently being raised. ↘ CHART 109 LEFT While 50.3 million people were of working age (between 20 and 65 years and 10 months) in 2021, simulations indicate that in 2080, only 45.5 million people will be of this age (by then: 20 to under 67 years). ↘ CHART 109 LEFT In 2021, the number of people of statutory retirement age was 17.6 million and, according to the 15th coordinated population forecast, this will rise to about 20.0 million people between 2022 and 2035 and continue to grow to 21.3 million by 2080.

361. The **old-age dependency ratio** ↘ GLOSSARY **in Germany**, which is the ratio of the number of people aged 65 and older to those aged between 20 and 64 (with fixed age limits), **will** approximately **double between 2000 and 2035**. ↘ CHART 110 In 2022, there were about three people aged 20 to 64 in Germany for every person aged 65 and over. From about 2040 onwards, this figure is likely to be only two. Prolonged low birth rates and rising life expectancy contribute to this increase to varying degrees at different points in time. ↘ CHART 109 RIGHT Over the

↘ CHART 110
**Old-age dependency ratios[1] in international comparison[2]**
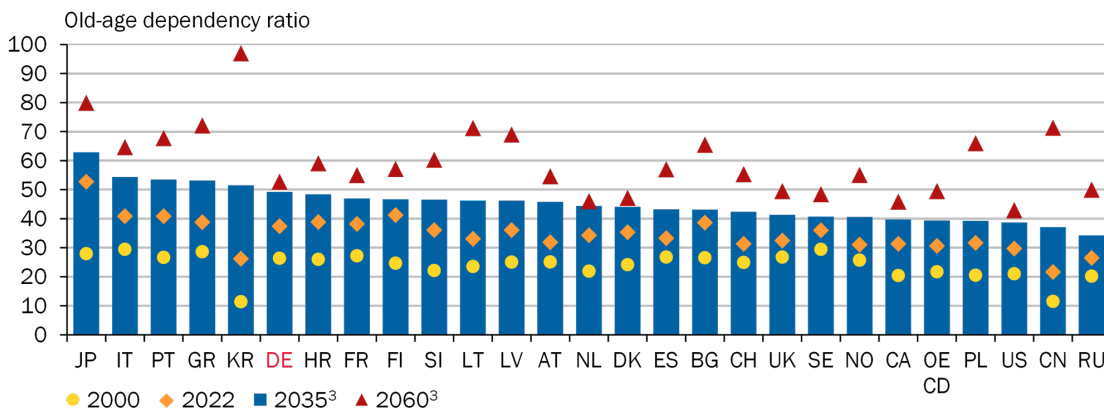


1 – The old-age dependency ratio is the ratio of people aged 65 and older to 100 people aged 20 to 64.  2 – JP-Japan, IT-Italy, PT-Portugal, GR-Greece, KR-Republic of Korea, DE-Germany, HR-Croatia, FR-France, FI-Finland, SI-Slovenia, LT-Lithuania, LV-Latvia, AT-Austria, NL-Netherlands, DK-Denmark, ES-Spain, BG-Bulgaria, CH-Switzerland, UK-United Kingdom, SE-Sweden, NO-Norway, CA-Canada, PL-Poland, US-USA, CN-China, RU-Russia.  3 – OECD population projection.

Source: OECD
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next two decades, the rise in the old-age dependency ratio can be attributed largely to the decline in the birth rate in the 1970s. Over the next ten years, the rise will be accelerated by the impending retirement of workers from the baby boomer cohorts, leading to an acute ageing phase. The main reason for the further increase in the old-age dependency ratio from the 2060s onwards will be the increase in life expectancy. The two phases of **demographic change require different policy responses** (Board of Academic Advisors to the BMWi, 2021). ↘ ITEM 461 In the short term, the financial burdens arising from the retirement of the baby boomer cohorts will have to be distributed inter- and intragenerationally. In the long term, the pension system must be adapted to the further rising life expectancy and a low birth rate.

362. Most advanced economies face a similar demographic challenge as Germany. By international comparison, Japan has the oldest population, as measured by the projected old-age dependency ratio, both currently and in 2035. In 2060, the Republic of Korea in particular will have a very aged population. **The age structure in Germany will change much faster than the OECD average over the next 15 years**. In 2035, Germany will have one of the highest old-age dependency ratios of the OECD countries. In the following years up until 2060, Germany will continue to age comparatively moderately, but will retain a permanently aged population.

363. The rising ratio of pensioners to contributors exacerbates the conflict of objectives between adequate pensions and their sustainability in the pay-as-you-go GRV. In the context of the GRV, **financial sustainability** can be measured by the extent to which the pension level provided for under current law ↘ GLOSSARY can be maintained over the long term with the current contribution rates ↘ GLOSSARY without needing to increase compensation from the federal budget (federal subsidies ↘ GLOSSARY) (Fall, 2019). **Adequacy** means that pensions contribute to securing the standard of living in old age (European Commission, 2021, p. 22). In particular, pension reforms should not have a negative impact on the risk of poverty in old age. In spite of the trade-off, pension systems should meet both objectives (European Commission, 2021; OECD, 2021).

The goal of financial sustainability does not rule out **increases in contribution rates**. Rather, they are one of the ways in which a lack of sustainability can be contained. However, the need to raise contributions is a simple but clear **indicator of a failure to achieve the sustainability goal**. This is because contribution-rate increases, like the introduction of a pay-as-you-go pension system, generate introductory gains for pensioners and cohorts close to retirement who did not have to pay correspondingly high contributions for their pensions throughout their employment phase; they also place a burden on all younger and future people in employment (Sinn, 2000). It is more difficult to determine how large an **adequate contribution of pensions to the standard of living in old age** needs to be. However, the objective that statutory pensions should **fully** secure people's standard of living in old age was **abandoned** in Germany already in the course of the pension reforms of 1997, 2001 and 2005 (Schmähl, 2007). In all three reforms, the German Bundestag adopted rules for annual upratings of

pensions intended to slowly reduce the benefit level they offer in the course of demographic ageing.

364. According to recent simulations, the demographically induced strain on pension finances will continue to increase. Under the current pension law, this leads to a reduction in the benefit level and a large increase in contribution rates in the GRV. ↘ ITEM 372 **Rising contributions burden the active population by increasing labour costs and/or reducing net wages, and therefore have an unfavourable impact on Germany's attractiveness as a business location** (Alesina and Perotti, 1997; Bayraktar-Sağlam and Sayek Böke, 2017). Moreover, under current rules, rising contribution rates in the GRV automatically lead to an increase in federal subsidies. ↘ BACKGROUND INFO 17 These already account for a considerable share of the federal budget today. ↘ ITEM 370 Overall therefore, financing the GRV increasingly burdens both contributors and public budgets. Although the required payments are rising, the benefits to be expected from the GRV are falling: the return on contributions paid will be markedly worse for younger cohorts than for the current generation of pensioners. ↘ ITEM 367 The foreseeable decline in the benefit level offered has an unfavourable effect on the at-risk-of-poverty rate in old age. ↘ BOX 25 This could also lead to a further increase in the number of recipients of basic income support ('Grundsicherung') and place an additional burden on public budgets elsewhere. On the other hand, stabilising the benefit level involves an additional increase in both contributions and federal subsidies and exacerbates the existing conflict of objectives.

365. **As a way out** of this dilemma, this chapter discusses **various reform options for stabilising the GRV**: increasing employment, expanding the group of insured persons, raising the statutory retirement age, ↘ GLOSSARY changes in benefit upratings, redistribution in the GRV and a reform of funded pension provision. ↘ ITEM 387 Any of these options can be used to reduce the GRV's financing problems to a greater or lesser extent. However, **no single reform option will be sufficient** to solve these problems. ↘ ITEM 461 In addition, the reform options have specific advantages and disadvantages. Some of them relieve the GRV only temporarily (e.g. increasing employment ↘ ITEM 388) or have a delayed effect (e.g. raising the statutory retirement age ↘ ITEM 403); others have an unfavourable effect on the benefit level (e.g. adjusting the sustainability factor ↘ GLOSSARY ↘ ITEM 421). **By bundling measures, disadvantages** can be **compensated for** and social hardship can be reduced, which could raise the acceptance of reforms.

In particular, **linking the retirement age to life expectancy**, combined with a new form of funded pension plans, will **have a lasting, favourable effect on the GRV**. If these measures are linked with a reduction of the benefit level (by adjusting the sustainability factor), the relief effect sets in earlier. An assessment of benefit entitlements graduated according to the level of lifetime income or the annual income subject to contributions (progressive benefit assessment) coupled with expenditure containment ↘ ITEM 432 can offset the unfavourable effects for the benefit level.

# II. STARTING POINT: FINANCING PROBLEMS IN RETIREMENT PROVISION

**366.** Various reforms of pension law have been implemented over the past 25 years. They have partially improved the long-term financing situation of the GRV, but they have also exacerbated problems in some areas (Werding, 2016; GCEE Annual Report 2020 items 657 ff.). There are thus **still foreseeable financing problems and a need for reform in the GRV**. Civil servants' pensions will also increasingly burden public budgets and create a need for action, which will be discussed below.

## 1. Current legal framework of the GRV

**367.** The **risks insured** by the GRV are **a long post-employment phase** and a premature **reduction in earnings capacity**. It also provides compensation for **survivors** to cover maintenance in the event of death in the form of survivors' pensions. The GRV is essentially financed via the pay-as-you-go system: ongoing pension payments are financed directly from current contributions. Contributors thus do not build up a capital stock for their own pensions, but **finance the payments to current benefit recipients**. In return, contributors acquire an entitlement to their own pension at a later date which is financed by the next generation of contributors. In a pay-as-you-go system, the return on contributions is determined by the sum of wage and population growth (Aaron, 1966), adjusted by any changes in the contribution rate. ⬊ BACKGROUND INFO 17 As there is a shrinking and ageing population, the returns from GRV tend to decline over time and become lower and lower the younger the cohort under observation. The GRV's return is therefore highly dependent on demographic change. If the number of pensioners rises more quickly than the number of contributors, this leads to a deficit in the GRV if contribution rates and the benefit level remain constant. The annual budget balance can only be achieved if either the benefit level is lowered or the contribution rate or the federal subsidies are increased. ⬊ BACKGROUND INFO 17

➕

⬊ BACKGROUND INFO 17

**Background: revenues and expenditure of the GRV**

As a pay-as-you-go pension system, the GRV's annual expenditure is covered by annual revenues (pension contributions and federal subsidies). Surpluses of revenues flow into the **sustainability reserve** ⬊ GLOSSARY. The latter can be used to offset deficits in the short term. If, at the end of the year, this reserve falls short of 0.2 times the average expenditure of the GRV for a calendar month (minimum reserve), the contribution rate is raised. If it exceeds 1.5 times the GRV's average expenditure for a calendar month (maximum sustainability reserve) at the end of the year, the contribution rate is reduced at the beginning of the following year (section 158 of SGB VI). In years with **contribution rate adjustments**, the federal subsidy additionally changes by the same percentage as the contribution rate (section 213 of SGB VI). Otherwise, the **general federal subsidy** is adjusted in line with gross wages.

Furthermore, there are other federal funds, such as the **additional federal subsidy**, which are increased according to various adjustment rules. The increase is not necessarily related to the purpose of these subsidies.

368. As part of the 2018 pension reform, the federal government introduced a **double stop line** in the GRV. This **limits the benefit level** of pension recipients to a minimum of at least 48 % of average wages subject to contributions, **and the contribution rates** to a maximum of 20 % of individual wages subject to contributions. ↘ BACKGROUND INFO 18 These stop lines initially applied until 2025, after which the current federal government now plans to stabilise the pension level at 48 % (SPD, Bündnis 90/Die Grünen and FDP, 2021; BMAS, 2022a). A corresponding bill is currently being prepared. In contrast, the stop line for the contribution rate is to be abandoned. The majority of the Pension Commission in the last legislative period advocated a continuation of stop lines for both the pension level and the contribution rate beyond 2025, but could not reach a consensus on their exact level (KVG, 2020).

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↘ BACKGROUND INFO 18

**Background: important terms in statutory pension insurance**

Insured people acquire benefit entitlements for the pension contributions they have made, which are measured in the form of **earnings points** ↘ GLOSSARY. A person who has earned exactly the average income in a year recieves one earnings point for his or her contributions. The assessment of individual benefits is based on the **equivalence principle** ↘ GLOSSARY. This is intended to ensure that the amount of pension payments in old age is proportional to the pension contributions made. **The standard pensioner** is defined as a statistical person who has paid contributions on an average income for 45 years. The **standard pension** ↘ GLOSSARY is the amount of the standard pensioner's monthly pension benefit. The benefit level (before taxes) describes the ratio between the standard pension and the salary of an average earner (minus social insurance contributions that are payable). The benefit level is determined by the **current pension value** (monthly pension payment in euros per earnings point). This value is adjusted annually and basically follows the development of gross wages (**wage factor**). However, annual benefit upratings are reduced in years when pension contributions are raised (**contribution rate factor**) or the ratio of pension expenditure ↘ GLOSSARY to pension contributions rises (**sustainability factor**; GCEE Annual Report 2020, Box 15). Due to a protective clause introduced in 2004, the current pension value cannot fall in nominal terms. Any pension cuts omitted as a result are made up for by the **compensation factor ('catch-up factor')** applied to subsequent benefit upratings.

369. In Germany, despite rising life expectancy, the **statutory retirement age** ↘ GLOSSARY ↘ CHART 111 remained unchanged at 65 for a hundred years after 1911 (DRV Bund, 2022a) ↘ ITEM 360. Since 2012, the retirement age is **gradually increased and will reach 67 in 2031**. The statutory retirement age is flexible in the sense that people who have been insured for many years (with at least 35 years of contributions) have the option of drawing an old-age pension early – with deductions – from the age of 63. Those insured for a particularly long time (with at least 45 years of contributions) have the option of drawing a pension without deductions

**Statutory and actual retirement age over time**[1]
Average retirement age in Germany is below the statutory retirement age
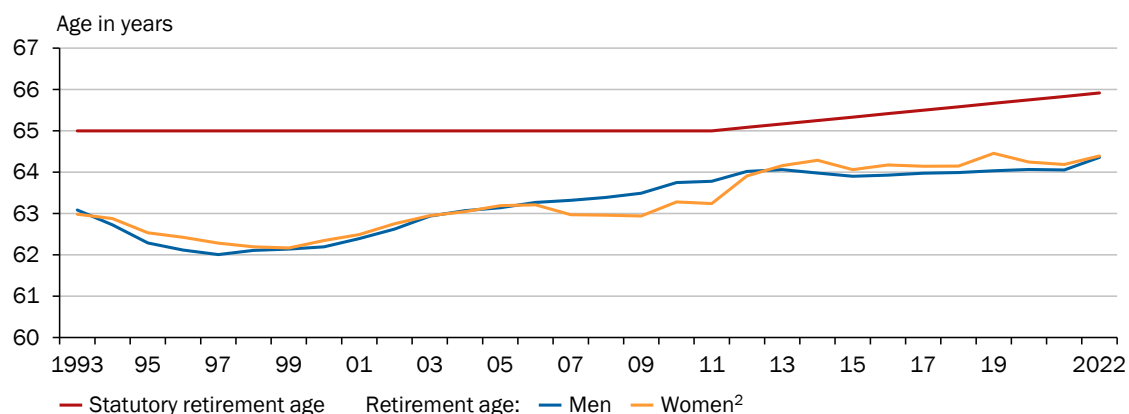


1 – Retirement due to old age.  2 – 2014/15: Excluding special effects due to the introduction of the maternity pension.

Source: Deutsche Rentenversicherung
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two years before the statutory retirement age (DRV Bund, 2023a; GCEE Annual Report 2020 items 657 ff.).

The average **actual retirement age** ↘ GLOSSARY in Germany **has been well below the statutory retirement age** over the last 30 years. ↘ CHART 111 It has risen by about two years since the late 1990s as a result of various pension reforms. In 2021, men received their first retirement provision at an average age of 64.1 years, women at 64.2 years.

370. **Financing the GRV** by means of **contribution revenues** is **supplemented by federal subsidies** from general tax revenues. The federal subsidies have several functions: on the one hand, they are intended to limit the contribution rate (DRV Bund, 2021). ↘ ITEM 367 On the other hand, the additional federal subsidy introduced in 1998 serves particularly as a lump-sum **settlement for non-contributory benefits (NBL) provided by the GRV**. ↘ BOX 23

The **federal subsidies** to the general pension insurance (GRV without miners' pension insurance) amounting to around €78.9 billion corresponded to about **23 % of pension expenditure** or around **2.2 % of GDP** in 2021. ↘ CHART 112 The federal subsidies are adjusted annually. ↘ BACKGROUND INFO 17 Between 1991 and 2003, the level of federal subsidies rose from 1.2 % to 2.4 % of GDP. The percentage has declined slightly since then. In addition to these subsidies, the federal government makes further payments to the GRV (e.g. contributions for child-rearing periods). The total of federal subsidies and other federal payments to the pension system amounts to €111.9 billion in the 2023 federal budget (BMF, 2022a). That corresponds to 23.5 % of the federal budget.

↘ CHART 112

**Federal subsidies to the general pension insurance[1]**

Federal subsidies rose sharply relative to GDP until 2003 and has since declined slightly
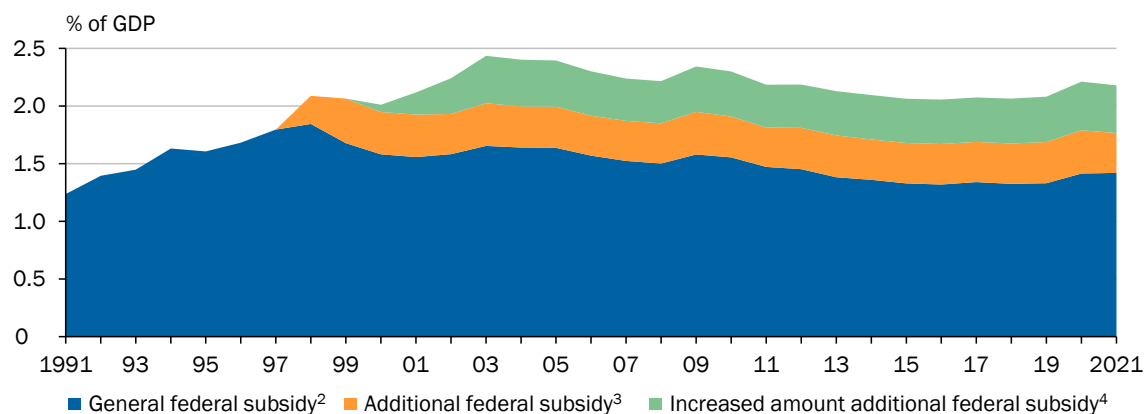


1 – Federal subsidies to the Statutory Pension Scheme (GRV) excluding subsidy to the miner's guild pension insurance.
2 – § 213 para. 2 and 2a SGB VI.  3 – § 213 para. 2 SGB VI. Since 1998, the federal government has paid an additional federal subsidy each calendar year to the general pension insurance scheme to cover non-contributory benefits. This was financed by the increase in VAT from 15 % to 16 % on 1 April 1998 and has since been dynamised in line with the increase in VAT revenue.  4 – § 213 para. 4 SGB VI. With the additional revenue from the continuation of the ecological tax reform from 2000 to 2003, an increase amount in the additional federal subsidy was introduced. Since then, the higher federal payments to the pension insurance scheme have been adjusted in line with the change in gross wages and salaries.

Sources: Deutsche Rentenversicherung, Federal Statistical Office, own calculations
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↘ BOX 23

**Background: non-contributory benefits (NBL) in the GRV**

Non-contributory benefits (NBLs) include all pension payments that are not provided as a quid pro quo for contributions paid. In some cases, these benefits are referred to as 'non-insurance' or 'extraneous' benefits (Sozialbeirat, 2019). The **insurance principle is strengthened if** benefits linked to earlier contributions **are financed** from current contributions, while **extraneous benefits** desired by society as a whole are financed from general tax revenues. However, there are controversies regarding how exactly to distinguish contributory benefits from NBLs (Deutscher Bundestag, 2016; DRV Bund, 2021). NBLs, according to the original (in brackets: extended) definition, increased continuously by a total of €6.3 billion (€18.5 billion) between 2003 and 2020. The NBLs' share in pension expenditure has fallen in parallel (remained at a relatively constant level). ↘ TABLE 22

According to the **1995 definition of the GRV institutions** (original definition), relevant societal tasks include, in particular, **family benefits** (e.g. child-rearing periods), benefits for other **non-contributory periods**, benefits under the Foreign Pensions Act (for displaced people and ethnic German repatriates) and extra-benefits for **low-income earners** (e.g. pensions based on minimum income, VDR, 2004). According to this definition, the largest NBLs in 2020 were the granting of benefits after early-retirement without deductions (€12.4 billion) and child-rearing periods for births before 1992 (€19 billion). ↘ TABLE 22 As a result of the reforms to the Mothers' Pension, the earnings points per child linked to child-rearing periods for these births have risen from 1 to 2.5 (GCEE Annual Report 2020 items 678 ff.). In the course of this expansion of payments, the NBL for child-rearing periods increased significantly between 2009 and 2017. ↘ TABLE 22 Since 1999, the federal government has been paying contributions for child-rearing periods for children born in 1992 and later.

↘ TABLE 22
**Non-contributory benefits[1] in the statutory pension scheme (GRV)**
€ billion

| | 2003 | 2009 | 2017 | 2020 |
|---|---|---|---|---|
| **According to VDR[2] definition 1995** | **57.0** | **47.3** | **55.7** | **63.3** |
| Replacement periods and periods of employment in a ghetto (ZRBG[3]) | 4.1 | 1.9 | 1.1 | 0.7 |
| FRG periods (periods under the Foreign Pension Act) | 5.6 | 5.1 | 5.9 | 6.5 |
| Credit periods (due to incapacity for work, unemployment, maternity, school education) | 8.9 | 8.4 | 8.2 | 8.2 |
| Old-age pension before the statutory retirement age (without full deduction) | 14.0 | 11.3 | 11.5 | 12.4 |
| Child-rearing periods (births before 1992) | 5.2 | 6.0 | 13.6 | 19.0 |
| Child-rearing benefits (KLG[4], for „Trümmerfrauen") | 0.8 | 0.3 | 0.1 | 0.0 |
| Additional EP[5] for periods of consideration due to rearing children (from 1992) | | | 0.3 | 0.5 |
| Child-rearing periods (births from 1992 to May 1999) | | | 0.3 | 0.5 |
| Unification-related benefits (e. g. top-up amounts, 2. SED-Unr.BerG[6]) | | | 0.1 | 0.1 |
| Reduced earnings capacity pensions due to labour market situation (full instead of half pension) | 1.5 | 0.6 | 0.9 | 0.9 |
| Pensions according to minimum income/minimum earnings points | 3.3 | 3.0 | 3.3 | 3.3 |
| Higher valuation of vocational training | 4.7 | 3.8 | 2.7 | 2.5 |
| Compensation to the miners' pension insurance scheme | 1.7 | 2.0 | 2.7 | 2.9 |
| Contributions to the KVdR (+ PVdR until 2004)[7] | 4.1 | 3.0 | 3.6 | 4.4 |
| Benefits from back-paid contributions (e. g. marriage refunds) | 1.3 | 1.0 | 0.6 | 0.5 |
| Other benefits, such as pro rata administrative and procedural costs | 1.8 | 0.9 | 0.8 | 0.9 |
| **After extended definition** | **20.4** | **23.4** | **43.4** | **49.1** |
| West-East transfers, from 2017 „higher valuation" of Eastern wages | 13.6 | 14.3 | 29.1 | 32.1 |
| Share of widows'/widowers' pension exceeding splitting | 6.0 | 8.3 | 13.5 | 16.2 |
| Orphan's pension | 0.8 | 0.8 | 0.8 | 0.8 |
| **Total** | **77.4** | **70.7** | **99.1** | **112.4** |

1 – Approximated estimate using available structural information. 2 – Association of German Pension Insurance Institutions. 3 – Act on the payment of pensions from employment in a ghetto. 4 – Child-rearing Benefits Act. 5 – Earnings points. 6 – SED Injustice Resolving Act. 7 – KVdR-Health insurance for pensioners, PVdR-Nursing care insurance for pensioners.

Source: DRV Bund
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According to the extended definition, West-East transfers (€32.1 billion), **parts of** the **widow's and widower's pension** (€16.2 billion) **and the orphan's pension** (€0.8 billion) are also to be regarded as a task of society as a whole and thus as NBLs (VDR, 2004). However, the classification of West-East transfers as NBLs is controversial (Bundesrechnungshof, 2022). The classification follows the logic that the pension insurance deficit in the new Länder results from massive structural problems in Eastern Germany and should not be borne by GRV members only (VDR, 2004). However, the redistribution of contributions from regions with financing surpluses to those with financing deficits within the GRV can also be seen as a regional equalisation pursuant to the solidarity principle inherent in the system (Deutsche Bundesbank, 2008; Fichte, 2011; GCEE Annual Report 2005 items 554 ff.).

The **widow's and widower's pension** itself is not classified as an NBL, since this benefit is not based on survivors' own contributions, but nevertheless on contributions attributable to the insurance system – namely those of the deceased insured person (VDR, 2004). The GCEE, on the other hand, has come to the conclusion in the past that the widow's and widower's pension is a **predominantly welfare-motivated benefit** (GCEE Annual Report 2005 item 553). Pension splitting, which can be chosen by an insured person as an alternative to the derived widow's or widower's benefit entitlements, is to be assessed differently. Splitting is based on the fundamental idea of marriage as a lifelong community of needs and the obligation to provide for and support each other arising from this. If pension splitting is not chosen, survivors acquire entitlements which are not covered by corresponding contribution payments. ↘ ITEM 446 Those **payments that exceed the effects of pension splitting are** thus **clearly to be classified as extraneous,** and amounted to €16.2 billion in 2020. ↘ TABLE 22

According to the original definition, NBLs totalled €63.3 billion in 2020, which is €12 billion less than the tax-financed federal subsidies to the GRV. According to the extended definition, they amounted to €112.4 billion (DRV Bund, 2021), resulting in a shortfall of around €37 billion in 2020.

371. There is a discussion on whether the financial situation of the GRV is strained because NBLs are not fully tax-financed. However, there is a lack of transparency both on the amount of federal funding actually provided to compensate for NBLs, and on how NBLs are defined and what amount is involved (Bundesrechnungshof, 2022). Due to unclear definitions, it is therefore **difficult to assess whether the size of NBLs is out of proportion compared to the level of the federal subsidies** (DRV Bund, 2021; Bundesrechnungshof, 2022). Furthermore, the **undercoverage** of NBLs in the GRV according to the extended definition ↘ BOX 23 **does not necessarily justify a congruent increase in federal subsidies**. Alternatively, the usefulness of some NBLs could be questioned and, where appropriate, reduced or abolished. For example, a reform of the widow's and widower's pension ↘ ITEM 446 and of the rules for accessing early retirement without deductions ↘ ITEM 417 could significantly reduce the NBLs in the long term. The federal subsidies could then be reduced accordingly. Overall, it would be appropriate to systematically link the uprating of federal subsidies to the size of the NBLs in future. ↘ BACKGROUND INFO 17

## 2. The financial situation of the GRV under current law

372. In order to estimate the effects of demographic ageing on the budget of the pension system, this section discusses the development of pension financing under the current law and under currently discussed amendments to current law. **Simulations of the long-term development** of pension finances are by their very nature **subject to many uncertainties**, which become greater the further the projections extend into the future. However, demographic development is determined by strong long-term trends and is a process that can be easily projected (Werding and Läpple, 2019; Board of Academic Advisors to the Federal Minister for Economic Affairs and Energy, 2021). **Several sensitivity analyses** have been carried out to test the responsiveness of the baseline scenario results to

changes in selected assumptions. These **demonstrate** that **the direction and magnitude of the resulting long-term effects** are robust (Werding, 2023).

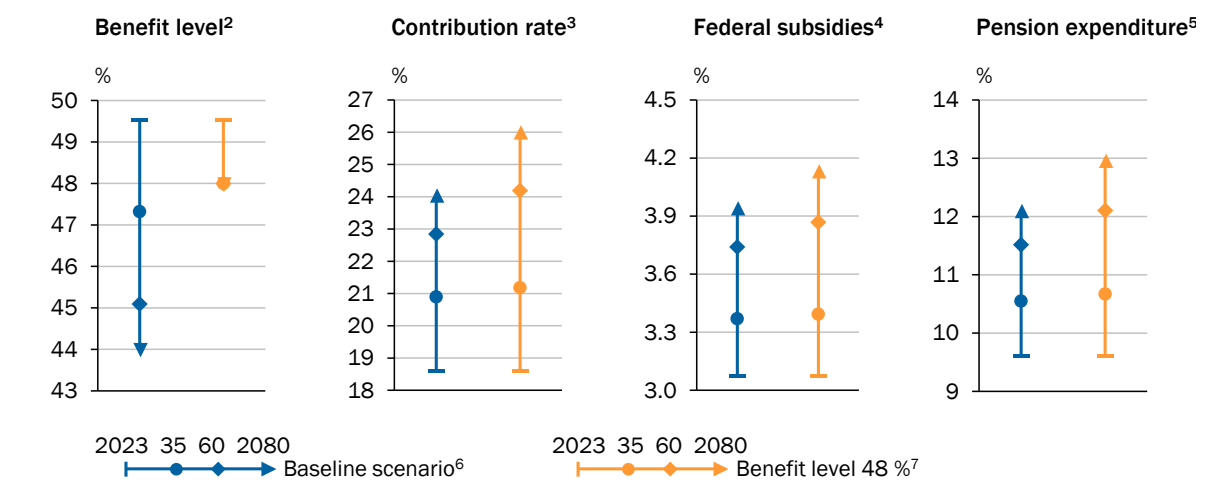373. For the **baseline scenario, the consequences of the current law** for various key figures are simulated up to 2080 and presented for the short (2035), medium (2060) and long (2080) term. ↘ CHART 113 It is assumed here that, after 2025, i.e. when current stop lines expire, the contribution rate and the benefit level ↘ BACKGROUND INFO 18 will be adjusted again according to the latest applicable provisions. ↘ BACKGROUND INFO 17 Current law also provides for less strict stop lines up until 2030. According to these, legislators have to propose suitable measures if, in a 15-year projection, the contribution rate is expected to exceed 22 % or the

↘ CHART 113

**Simulations of the long-term development of pension finances[1]**



1 – Starting point in 2023: Benefit level 49.5 %, contribution rate to the statutory pension insurance 18.6 %, federal subsidies 3.1 % of GDP, pension expenditure 9.6 % of GDP. 2 – Net before taxes, ratio of standard pension (45 earnings points) to average income of contributors. 3 – Contribution rate to the statutory pension scheme as a percentage of the gross wage. Half of this is paid by employers, the other half by employees. 4 – Federal subsidies in relation to nominal GDP. 5 – Expenditure of the statutory pension scheme in relation to nominal GDP. 6 – Double stop line ends in 2026: Contribution rate and benefit level will then move again according to current law and baseline assumptions. 7 – Pension adjustment according to minimum benefit level.

Sources: Federal Statistical Office, SIM.21, own calculations
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benefit level to fall below 43 %. According to the simulations **in the baseline scenario, the pension level will fall** from 49.5 % at present to 47.3 % in 2035. ↘ CHART 113 TOP LEFT The **contribution rate** will rise from 18.6 % to 20.9 % in the same period. ↘ CHART 113 MIDDLE LEFT By 2080, the contribution rate will rise further to 24.1 %. Under current law, the benefit level will fall to 44.0 % by 2080. **Federal subsidies will rise** from 3.1 % at present to 3.9 % by 2080, and **pension expenditure as a percentage of GDP** from 9.6 % to 12.1 %. ↘ CHART 113 MIDDLE RIGHT AND RIGHT

374. **If**, as currently planned by the federal government, ↘ ITEM 368 the **benefit level is stabilised at 48 % starting from 2026**, the contribution rate will subsequently rise significantly – to 26.0 % by 2080. This clearly shows how closely the benefit level and contribution rates – or sustainable financing and adequacy of benefits – are linked to each other in a pay-as-you-go pension system. Improvements in one dimension generally lead to deteriorations in the other dimension. ↘ ITEM 364 The federal subsidies will also increase more relative to GDP than in the baseline scenario, since an increase in the contribution rate is always accompanied by an extra increase in federal funding. ↘ BACKGROUND INFO 17

**With** such **benefit upratings according to a minimum benefit level**, the **formula for benefit upratings** ↘ GLOSSARY in its present form would **de facto be abolished**. In particular, the stabilising mechanisms for adjusting the GRV to demographic developments would disappear. Under the current law, the pension level could fall below 48 % for the first time as early as 2026 (Board of Academic Advisors to the BMWi, 2021; BMAS, 2022b). From this point on, the annual benefit upratings would only follow the development of wages. An increase in the contribution rate would only have an indirect influence on the assessment of benefits via rising social insurance contributions and their effect on wage growth (BMAS, 2022a). ↘ BACKGROUND INFO 18 Apart from the plans for a stock-market fund ("Generationenkapital") included in the statutory pension insurance, ↘ BOX 28 there is no alternative on the political agenda for financing the stop line for the benefit level without higher contribution rates and higher federal subsidies (BMAS, 2022a; Bundesrechnungshof, 2022).

## 3. Structure of civil servants' pensions

375. Civil servants' pensions are faced with similar challenges as the GRV. The **advanced ageing of civil servants** and their higher life expectancy are **increasingly narrowing the fiscal space in public budgets**. At the same time, these burdens are not very transparent, as they are financed mainly from tax revenues as there is a lack of sufficient reserves. This section first discusses the demographic starting position and the legal framework of civil servants' pensions. It will then analyse how the expenditure of civil servants' pensions has developed at different levels of government and what pension reserves ↘ GLOSSARY exist to cover the burdens.

## Demographic starting point

376.  The largest age cohorts of civil servants are currently already retired or about to retire. ↘ CHART 114 LEFT According to the Federal Statistical Office, around 1.8 million people in Germany received civil servants' pensions ↘ GLOSSARY in 2022. The **number of recipients of civil servants' pensions (retirees and their survivors) will continue to increase over the next ten years**. The retirees include former civil servants, judges and soldiers (summarised below as 'civil servants'). According to the Federal Statistical Office, the average retirement age of civil servants in 2021 was 62.5 (including people who retired due to incapacity). The current large number of pensioners is mainly due to the increase in the number of teachers and police in the 1960s and 1970s and mainly affects the Länder. The middle of the age pyramid also reflects the freeze on civil servants at the federal level following the privatisation of Deutsche Bahn and Post in the mid-1990s and the cautious recruitment policy of the following decade.

377.  Because of the renewed increase in the number of teachers, police and financial administrators since 2008, the **number of civil servants,** especially at the **Länder level**, is **rising again,** ↘ CHART 115 LEFT **mainly in part-time employment**. This is likely to lead to a renewed increase in pension recipients from the 2050s onwards. The number of civil servants at the **federal level** has also increased since 2016. At the **municipal level**, however, the number of civil servants has remained almost **constant** over the past ten years. In all areas, the number of part-time employees in particular has risen significantly. In 2022, the total number of civil servants in Germany was 1.9 million, of whom around 450,000 were employed part-time.

↘ CHART 114

**Age distribution of civil servants and recipients of civil servants' pensions**



Heavily staffed civil servant cohorts already retired or about to retire[1]

More even age distribution in 2080

■ Civil servants[2]  ■ Pension recipients[3]

1 – Reference date for civil servants 30 June 2021; for pension recipients 1 January 2022.  2 – Civil servants also include judges and professional soldiers. Furthermore, staff on leave are also taken into account, whereas civil servants in preparatory service and staff with a temporary contract are not taken into account.  3 – Pension recipients include recipients of pensions and survivors' benefits.

Sources: Federal Statistical Office, SIM.21, own calculations
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↘ CHART 115

**Development of the number of pension recipients and civil servants by territorial authorities**



Number of civil servants increases at federal and Länder level[1]

Increase in the number of pension recipients, especially in the Länder[2]

Federation — Municipalities — Länder (right-hand scale)

Federation — Federation excluding former civil servants at Deutsche Bundesbahn and Deutsche Post — Länder — Municipalities
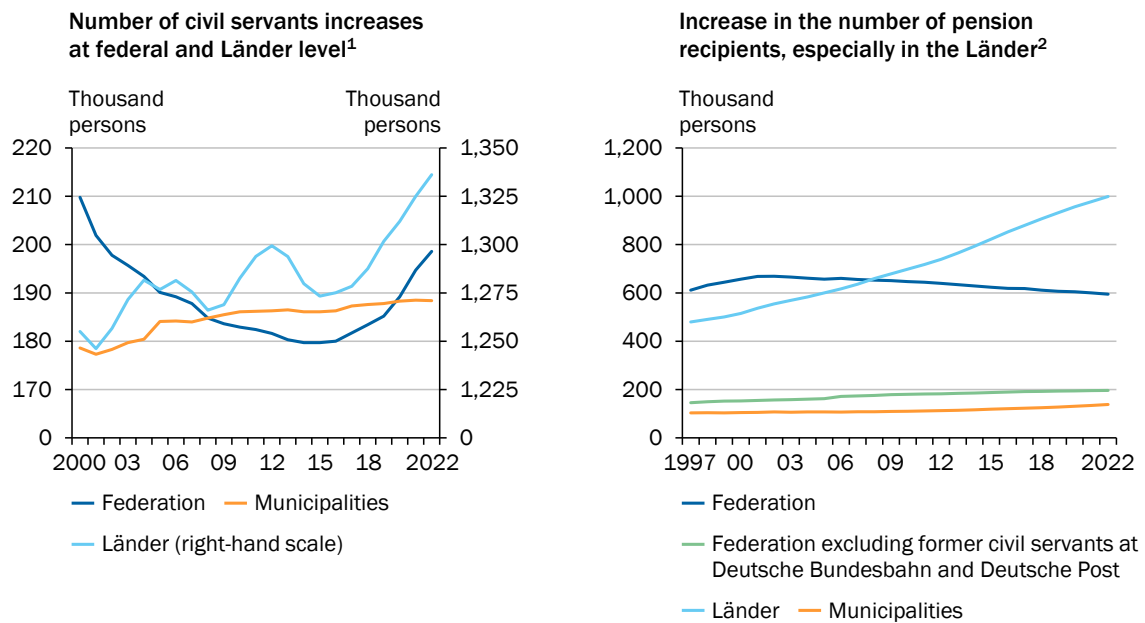
1 – As of 30 June of the respective year. Civil servants and judges. Excluding soldiers. Excluding civil servants in social security funds.  2 – As of 1 January of the respective year.

Source: Federal Statistical Office
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378. Differentiated by regional authorities, it can be seen that the **number of pension recipients has increased significantly** since 1997, especially **at the Länder level**, while at **federal level it has been declining** continuously since 2002 due to the privatisation of Deutsche Bahn and Post. ↘ CHART 115 RIGHT Former civil servants of Deutsche Bahn and Post and their survivors still make up the majority of pension recipients at the federal level. Excluding this group, **the number of** pension recipients **at the federal level**, as well as in the **municipalities**, is **rising slightly**.

379. The **peak in the number of pension recipients** is expected to be reached in **2029**, as the largest cohorts of civil servants will then have reached retirement age. ↘ CHART 114 LEFT Because fewer civil servants were appointed later on, the number of pension recipients is expected to fall from that year onwards and only to start rising again in the mid-2050s due to the increase in staff in the 2010s. At the end of the forecast period, In 2080, there are expected to be around 1.7 million civil servants and 1.7 million recipients of civil servants' pensions. ↘ CHART 114 RIGHT This is based on the assumption that current practices of appointing civil servants will be continued.

## Legal framework

380. In addition to expenditure on old-age pensions, expenditure on civil servants' pensions includes survivors' benefits as well as other payments (such as allowances for illness, nursing care and accident care). Of the three pillars of the German system of old-age provision (statutory, occupational and private provisions),

civil servants' pensions cover the functions of the first and second pillar. There is no separate occupational pension scheme (bAV) for civil servants, while there is one for public-sector employees subject to social insurance contributions. The **civil servants' pensions** are therefore **not directly comparable with pensions provided by the GRV**. ⭨ BACKGROUND INFO 20

Civil servants' pensions are financed from current tax revenues accruing in the relevant budget. In the **Länder, the high number of pension recipients** leads to a **high pensions-tax ratio** ⭨ GLOSSARY, while it is significantly lower at the federal level (Holtemöller and Zeddies, 2021). In addition, the average life expectancy of civil servants, which is around two years higher than that of the population as a whole, creates a longer-lasting burden on public budgets (zur Nieden and Altis, 2017; Haan and Schaller, 2021).
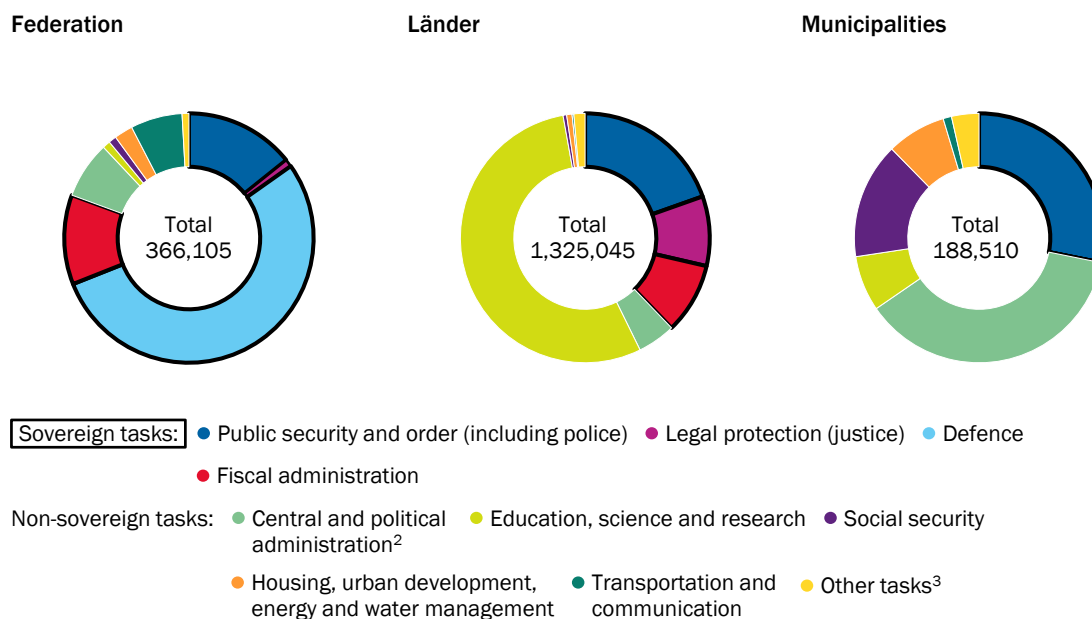
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⭨ BACKGROUND INFO 20

**Definition: level of civil servants' pensions**

**Civil servants' pensions** ⭨ GLOSSARY are **based on the** pensionable **period of service and** rise by 1.79 % every year to a minimum of 35 % and a maximum of 71.75 % of the **remuneration in the two years of service prior to retirement** (excluding allowances and supplements). The **principle of alimentation** ⭨ GLOSSARY **guarantees** civil servants a standard of living in line with their office in order to ensure their **independence** (BMI, 2020). Indicators such as collective wage agreements in the public sector, the development of the nominal wage index and the consumer price index are used to check whether the level of alimentation is sufficiently high. Furthermore, there is a requirement to maintain a certain distance between the salary groups. The salaries are checked for regional differences. In addition, a certain minimum distance from basic income support should be maintained for low-paid civil servants (Kohlstruck, 2023, p. 13 f.).

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381. Since 1989, legislators have been striving to **transfer** reforms of the GRV to civil servants' pensions aiming at **the same effect**. The aim is to transfer budget-relieving effects of pension reforms to public budgets (Deutscher Bundestag, 2001, p. 30). Over the past decades, reforms such as raising the statutory retirement age have been transferred to civil servants' pensions. The implementation over time has been very slow. The federal state of Berlin, for example, will only start gradually increasing the standard retirement age for civil servants to 67 in 2024, although this was already started in the GRV in 2012. ⭨ ITEM 369 For lack of data it is **difficult to assess** whether all reforms enacted in the GRV have been transferred to civil servants' pensions (Janda et al., 2016, p. 131). Uniform reporting also ceased to exist with the unbundling of responsibilities for civil servants' pensions between the federal level and the Länder (whose rules also apply to municipal employees) in 2006.

382. Article 33 section 4 of the Basic Law states that persons exercising **sovereign powers** must always be civil servants ('special reservation to civil servants of the exercise of sovereign powers'). However, this does not exclude the possibility that persons who do not perform sovereign tasks may also become civil servants. The delimitation of sovereign tasks depends on the interpretation of the special

↘ CHART 116

**Civil servants by areas of responsibility and employment in 2021[1]**

| Federation | Länder | Municipalities |
|---|---|---|



Total
366,105

Total
1,325,045

Total
188,510

Sovereign tasks:  ● Public security and order (including police)  ● Legal protection (justice)  ● Defence
● Fiscal administration

Non-sovereign tasks: ● Central and political     ● Education, science and research   ● Social security
administration[2]

● Housing, urban development,   ● Transportation and   ● Other tasks[3]
energy and water management    communication

1 – As of 30 June 2021. For reasons of simplification, the term civil servants also includes judges and soldiers. The areas of employment also include the social insurance funds, which are not presented here.  2 – Political leadership and central administration; foreign affairs.  3 – Financial management; food, agriculture and forestry; health, environment, sport and recreation.

Source: Federal Statistical Office
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reservation, which can be interpreted narrowly or broadly (Brosius-Gersdorf, 2015; Bickenbach, 2021). If a narrow interpretation were applied, following Brosius-Gersdorf (2015), only public security, justice, defence and financial administration would be considered domains for civil servants. **Almost 81 %** of federal civil servants work in these areas of responsibility. ↘ CHART 116 **In the Länder**, the proportion is **only around 38 %**, while **in the municipalities only around 28 %** of civil servants perform sovereign tasks according to this interpretation. In addition to these sovereign tasks, civil servants currently also perform non-sovereign tasks, for example in the areas of education, social insurance and housing.

## Development of pension reserves and expenses

383. To supplement the financing of civil servants' pensions from current tax revenues, the Federation created an obligation to **set up pension reserves** in 1998 ↘ GLOSSARY (Bundesbesoldungsgesetz, BBesG). In 2006, the law for civil servants at the Länder and municipal levels became the responsibility of the Länder. As a result, the commitment to the pension reserve previously introduced by the Federation expired. The Länder used this autonomy to set up their own reserve instruments, with different structures, investment strategies, volumes and coverage targets (Kulawik et al., 2017; Platter, 2019). **Only** the Land of **Saxony** enshrined the pension fund in its constitution in 2013, thereby **guaranteeing a full pre-funding** for all new civil servants from 1997 onwards. **Other Länder** (such as Lower

Saxony), on the other hand, **made early withdrawals from their pension reserves or dissolved the pension fund** ↘ GLOSSAR **in favour of the budget** (Rhineland-Palatinate). These circumventions of earmarking lead to insufficient reserves. A reduced allocation of funds to the **pension funds** can also be **observed** during tight budgetary situations and before state elections (Kulawik et al., 2017).

For some Länder, the Bundesbank takes over the management of pension reserves and funds. Here, a **security and yield-oriented investment strategy** is pursued. Some Länder realise equity shares of up to 50 %, which results in opportunities to ease the burden civil servants' pensions are imposing on public budgets.

384. **In 2020, total pension reserves and funds comprised assets of** around €52 billion for the Länder and about €25 billion for the Federation. In 2021, the annual expenditure for old-age pensions and benefits for survivors amounted to €17.1 billion for the Federation and €42.7 billion for the Länder and municipalities. Compared to this, **the level of reserves is completely insufficient** to cover existing pension entitlements. In addition to pensions, health and long-term care costs must also be borne by the employers in the form of special allowances (Beihilfe). These are becoming increasingly relevant considering the continued ageing and the higher life expectancy of civil servants. In 2020, these expenses totalled €10.9 billion (Kohlstruck, 2023, p. 156).

385. The fact that there is no obligation to build up reserves for the future pensions of **civil servants**, while they are exempted from paying GRV contributions, implies that **current labour costs** are lower compared to other public-sector employees who are not civil servants. The budgets of all levels of government benefit from this relief in the short term, creating an incentive to save personnel costs in the present by appointing civil servants and postponing financial burdens into the future.

↘ CHART 117
**Development of expenditure[1] for civil servants' pensions by levels of government**
Rising financial burden hits Länder and municipalities
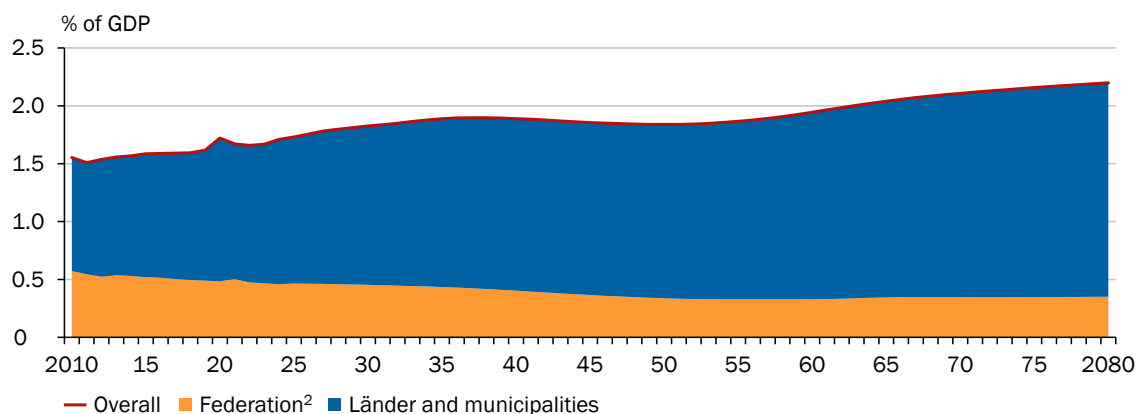


1 – Expenditure includes pensions and survivors' benefits.  2 – Including former civil servants at Deutsche Bundesbahn and Deutsche Post.

Sources: Federal Statistical Office, SIM.21
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386. **Expenditure on civil servants' pensions** has risen **continuously over the past ten years**. Expenditure on civil servants' pensions constituted 1.7 % of GDP in 2022 and will rise to 2.2 % of GDP by 2080 according to the simulations. ↘ CHART 117 The main burden is borne by the Länder and municipalities, whose share of total pension expenditure was around 72 % in 2022 and will rise to around 85 % by 2080.

# III. MEASURES: REFORM OPTIONS FOR STATUTORY PENSION INSURANCE

387. **This section** discusses **various reform options** that can contribute to **a sustainable financing of the GRV, while taking into account the adequacy of pensions**, and shows **their advantages and disadvantages.** First, approaches are discussed that are intended to reduce the ratio of pensioners to contributors, e.g. through an increase in employment, an expansion of the group of insured people and an increase in the statutory retirement age. Subsequently, potential solutions are discussed that redistribute (intergenerationally) some of the burdens from contributors to pensioners. The possibility of a progressive benefit assessment and thus an (intragenerational) redistribution of benefit entitlements within the pensioner generation is also analysed. **Finally,** the **expansion of fully funded retirement provisions supplementing the GRV**, i.e. outside the first pillar of retirement provision, is presented.
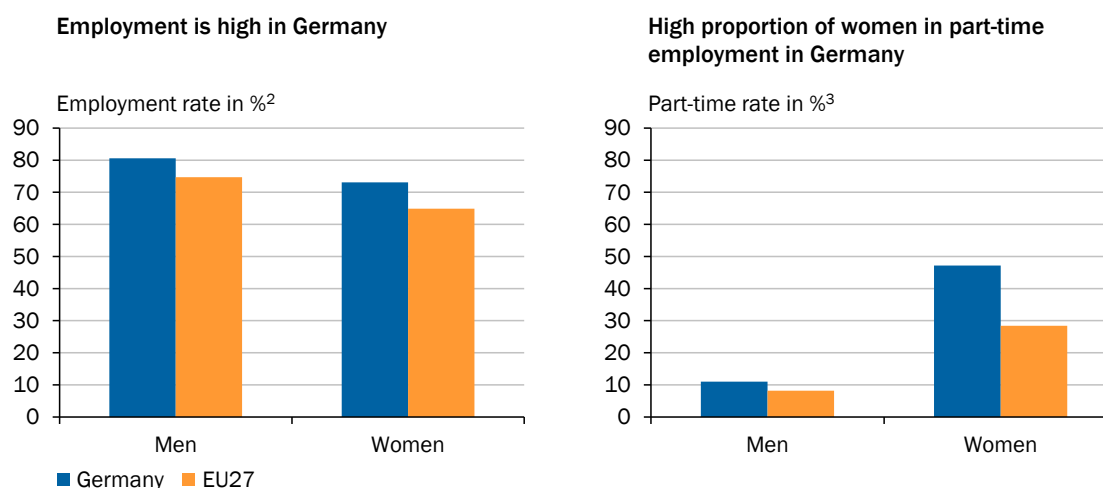
## 1. Increase in employment subject to social insurance contributions

388. The amount of **revenues from contributions for the GRV is highly dependent** on the performance of the labour market. An **increase in the number of employees subject to social insurance contributions** would make additional contributors and thus additional funds available for financing expenditure on pensions. Both an increase in the intensity of work, i.e. the number of hours worked (intensive margin), and new employment (extensive margin) **increase the GRV's current revenues**. An increase in working hours with a constant number of employees increases average annual income and thus annual benefit upratings. As a result, the upward pressure on contribution rates will not be removed. An increase in the number of contributors does have a **temporary, positive effect on the financing situation** of the GRV. However, when the additional contributors retire, pension expenditure rises more strongly. Nevertheless, the additional revenue could help to bridge the phase of strong expenditure growth as the baby-boomer cohorts retire.

**Three strategies** are likely to have a particular potential for **increasing the employment** of people living in Germany: first, combating (long-term) unemployment (GCEE Annual Report 2016 items 738 ff.), second, increasing the

**Employment in 2022 in Germany and the EU in comparison[1]**

**Employment is high in Germany**

Employment rate in %[2]

**High proportion of women in part-time employment in Germany**

Part-time rate in %[3]



■ Germany ■ EU27

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1 – Persons aged 15 to 64.  2 – Employment as a share of total population in the same age group.  3 – Part-time employment as a share of total employment.
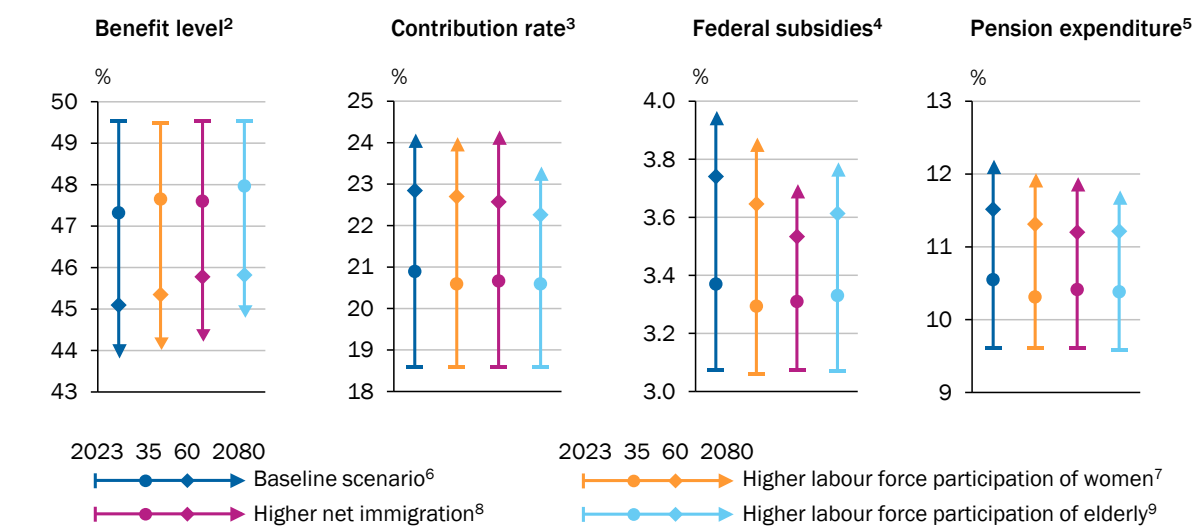
Source: Eurostat
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labour-force participation of women (Lembcke et al., 2021; GCEE Annual Report 2021 items 319 ff.), and third, increasing the labour-force participation of older people. **Furthermore, labour immigration** can boost the number of people in the labour force in Germany (GCEE Annual Report 2022 item 359). An increase in employment also leads to an increase in macroeconomic output.

## Female labour-force participation

389. According to Eurostat, the employment rate ↘ GLOSSARY among 15-64-year-old Germans in 2022 was high by international standards, amounting 73.1 % for women and 80.6 % for men. ↘CHART 118 LEFT However, there is still **potential for increasing work intensity**, especially **among women**, with a part-time employment rate ↘ GLOSSARY of 47.2 % (men: 11.0 %). ↘ CHART 118 RIGHT Disincentives involved in the tax and transfer system, e.g. income-tax splitting for married couples, the current design of widows' and widowers' pensions, a lack of childcare options and the non-contributory co-insurance of spouses in health insurance, inhibit the expansion of the labour supply among second earners (Lembcke et al., 2021; GCEE Annual Report 2021 items 319 ff.). ↘ ITEMS 337 AND 444

390. Simulation results show that an **increase in female labour-force participation** to 97.5 % of male labour-force participation by 2030 and a further increase to 99.0 % by 2060 would have a **stabilising effect on the GRV**. ↘ CHART 119 This is reflected in the development of the benefit level and the contribution rate, as well as in lower federal subsidies.

↘ CHART 119

**Simulations of the effects of increasing employment subject to social insurance contributions[1]**



Benefit level[2]  Contribution rate[3]  Federal subsidies[4]  Pension expenditure[5]

2023 35 60 2080

→ Baseline scenario[6]

→ Higher net immigration[8]

2023 35 60 2080

→ Higher labour force participation of women[7]

→ Higher labour force participation of elderly[9]

1 – Starting point in 2023: Benefit level 49.5 %, contribution rate to the statutory pension insurance 18.6 %, federal subsidies 3.1 % of GDP, pension expenditure 9.6 % of GDP. 2 – Net before taxes, ratio of standard pension (45 earnings points) to average income of contributors. 3 – Contribution rate to the statutory pension scheme as a percentage of the gross wage. Half of this is paid by employers, the other half by employees. 4 – Federal subsidies in relation to nominal GDP. 5 – Expenditure of the statutory pension scheme in relation to nominal GDP. 6 – Double stop line ends in 2026: Contribution rate and benefit level will then move again according to current law and baseline assumptions. 7 – Increase of female labour force participation to 97.5 % of male labour force participation by 2030 and further increase to 99.0 % by 2060. 8 – Net immigration of 350,000 persons, 250,000 in the baseline scenario. 9 – Higher labour force participation of older persons. Increase of the actual retirement age from currently 64 to 67 years by 2060.

Sources: Federal Statistical Office, SIM.21, own calculations

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## Labour-force participation of older people

391. **Older people** in Germany are becoming **increasingly active in the labour market**, but still have significant scope for increased employment (Fitzenberger et al., 2023). The labour-force participation of 60-64-year-olds rose from 47 % in 2012 to 63 % in 2022, more than in any other age group. In 2022, highly qualified people with an employment rate of 74 % were much more likely to be in employment than low-skilled people with an employment rate of 50 % (Federal Statistical Office, 2023b). The share of people in employment above the statutory retirement age also rose sharply over the same period from 11 % to 19 % among 65-69-year-olds (Federal Statistical Office, 2023b). In both age groups, the rise in employment was driven primarily by employees subject to social insurance contributions. The importance of marginal employment has fallen significantly since the 2010s (Fitzenberger et al., 2023). At the same time, according to Eurostat, the share of part-time employment in the 55-64 age group has risen slightly from 29.1 % in 2012 to 31.0 % in 2022, and was thus 4.3 percentage points higher than in the 25-54 age group. This indicates that some of the additional employment is part-time. There could be further potential here for increasing labour supply at the intensive margin. Since the level of education is steadily rising and the statutory retirement age will be further raised until 2031, an increase in the employment of older people can also be expected in the coming years. The institutional framework for

labour supply in old age was recently strengthened with the abolition of the limit for additional income while receiving early-retirement pensions in January 2023.

392. In a scenario in which the actual retirement age would rise from a current 64 to 67 by 2060, there would be clearly positive effects for the GRV. ↘ CHART 119 **Older people in employment contribute to the financing of the GRV** through their contributions and delayed pension take-up. Due to the much more favourable ratio between revenues and expenditure, a higher benefit level can be realised ↘ ITEM 421, while the development of the contribution rate is more moderate at the same time. ↘ BACKGROUND INFO 17 Since older people in employment contribute to economic output, the ratio of pension payments to GDP further decreases. This is also reflected in the more favourable development of federal subsidies.

## Higher net immigration

393. Higher net immigration ↘ GLOSSARY can also help cushion the impact of demographic trends on the labour market and pension finances (Hellwagner et al., 2023; Werding and Lembcke, 2023; GCEE Annual Report 2022 items 356 ff.). Without immigration, the population in Germany would already have been shrinking for some time, as the number of deaths has exceeded the number of births every year since 1972 (Federal Statistical Office, 2023c). According to the Federal Statistical Office, **net immigration has averaged about 578,000 people per year over the past 10 years**. This figure was **greatly influenced by refugee immigration** in 2015/2016 and 2022. In the previous ten years, it was significantly lower at an average of 108,000 people per year. The Federal Statistical Office's current population forecast assumes in the medium scenario that net immigration will be around 250,000 people per year up until 2070. Although **higher inflows** are likely to have a favourable impact on demographic ageing, they **will not be sufficient to offset the effects of reduced birth rates and the retirement of the baby-boomer cohorts**. ↘ CHART 109 RIGHT Even with rising net immigration, the contribution rate and federal subsidy will increase markedly over the coming decades (Werding and Läpple, 2019). Hurdles, for example in the recognition of foreign qualifications, should be lowered to ensure the successful integration of immigrants into the labour market (GCEE Annual Report 2022 items 412 ff.).

394. A net immigration of 250,000 people per year is assumed in the baseline scenario of the simulation calculation. If **annual net immigration is** 100,000 people higher, the **benefit level can be higher** by 0.3 percentage-points in 2035 and by 0.4 percentage points in 2080 compared to the baseline scenario. ↘ CHART 119 This is due to a less steeply declining ratio between contributions and pension payments. As pension entitlements increase with rising labour-force participation, **the beneficial effects on the financing of the GRV will erode in the long term**. This can be seen in the development of the contribution rate, will be 0.2 percentage points below the baseline value which in 2035. In the long term, however, there will be slightly upward effects on the contribution rate. Since greater immigration has a positive impact on economic performance, federal subsidies relative to GDP will decrease in both the short and the long term.
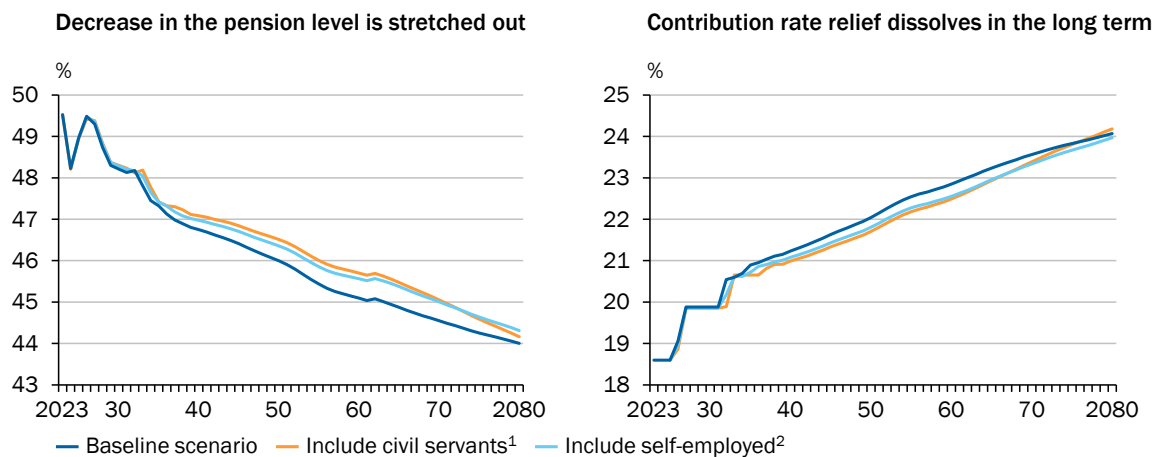
# 2. Expanding the group of insured people

## Inclusion of civil servants in the GRV

395. An expansion of the group of insured people through the inclusion of future **civil servants could ease the financial burden on the GRV in the short to medium term**, if initially only contributors are included, but no additional pensions accrue. The simulations shows that such a reform would lead to lower contribution rates from 2024 onwards compared to the baseline scenario. At the same time, a higher benefit level would be achieved in the GRV during this period. ⌍ CHART 120 However, the **positive effect on the contribution rate is** likely to be **reversed from the mid-2070s.** Due to higher pension payments, the contribution rate will then rise above the baseline scenario in the long term and the benefit level will fall almost to the same level as in the baseline scenario. Due to their higher life expectancy, civil servants have a higher ratio between the duration of their pension receipts and that of their working lives, which worsens the ratio between contributors and pensioners in the long term.

396. The integration of civil servants into the GRV would also place an **additional burden on the public budgets as a whole in the short to medium term**, as financing must be provided for new GRV contributions (employees' and employers' contributions), expenditure on new occupational pensions for future civil servants, and ongoing pension payments for all earlier cohorts of civil servants at the same time. ⌍ CHART 121 LEFT Furthermore, financing civil servants' pensions would not become more sustainable in this way because pension contributions are immediately spent in the GRV, so that the financing of the additional pension entitlements resulting from an integration of civil servants is postponed without any alteration to the future.

**Effects of integrating civil servants and self-employed persons into the GRV**



Decrease in the pension level is stretched out

Contribution rate relief dissolves in the long term

— Baseline scenario — Include civil servants[1] — Include self-employed[2]

1 – Integration of all new civil servants from 2024 onwards. 2 – Integration of all new self-employed persons without compulsory old-age provision from 2024 onwards, assuming that 50 % opt for an alternative old-age provision to the GRV (right to choose).

Sources: Deutsche Rentenversicherung, SIM.21
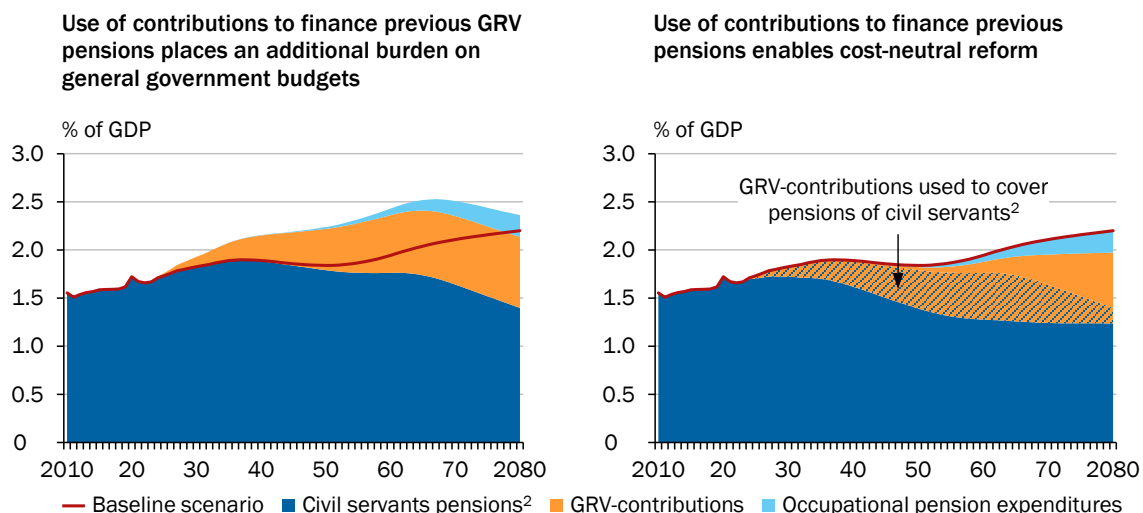© Sachverständigenrat | 23-263-01

397. On the other hand, **integrating civil servants into the GRV** could be implemented in a cost-neutral manner **with separate pension funds**. ↘ CHART 121 RIGHT To achieve this, it would have to be ensured that the GRV contributions paid by the employers of civil servants can be used to finance current expenditure on civil servants' pensions, and cannot be spent elsewhere in the GRV. From the mid-2040s onwards, these contributions will increasingly be needed to finance incapacity and, later, old-age pensions for the newly appointed civil servants. This would result in a more transparent form of old-age provision for civil servants.

Occupational retirement provisions additionally granted to new civil servants then offer scope for a pension scheme that reflects the special role of civil servants and makes employment in the civil service sufficiently attractive. At the same time, the level of occupational pensions could be used as a starting point for reducing the financial burden involved in civil servants' pensions. **Reserves should be consistently accumulated during the period of active service** for the occupational pension scheme, just as the state of Saxony has laid down in its financial constitution. This would, in turn, lead to a frontloading of expenditure on occupational pensions in favour of long-term relief, and would further raise the level of transparency. In the short to medium term, however, the burden on the public budgets would be higher than in the baseline scenario.

398. The integration of civil servants into the GRV and the formation of reserves for their occupational pensions have the **positive side effect** that hidden **future burdens for pension obligations are brought forward to the present**. This can contribute to **reducing disincentives** that arise from lower current labour costs of civil servants compared to other public-sector employees. ↘ ITEM 385 At the same time, a uniform old-age pension system would improve political

↘ CHART 121

**Development of civil servant pension expenditure under two reform scenarios[1]**



Use of contributions to finance previous GRV pensions places an additional burden on general government budgets

Use of contributions to finance previous pensions enables cost-neutral reform

GRV-contributions used to cover pensions of civil servants[2]

— Baseline scenario   ■ Civil servants pensions[2]   ■ GRV-contributions   ■ Occupational pension expenditures

1 – Simulations ensure the benefit level for civil servants according to current law. The expenditure on occupational pensions is determined in such a way that this benefit level is achieved given the development of the benefit level in the GRV. The GRV contribution rates correspond to the baseline scenario and are fully borne by the respective employer.
2 – Including survivors' benefits.

Sources: Federal Statistical Office, SIM.21
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controllability and **automatically ensure that reforms of the GRV are applied to civil servants' pensions with the same effects**, which has been an aim since 1989. ↘ ITEM 381 The reforms of the GRV discussed in this chapter would thus also have a direct effect on civil servants.

399. **Other European countries have also undertaken reforms of civil servants' pensions**. Austria, for example, has comprehensively reformed its civil-servants' pension system with the financial participation of employers, civil servants and pensioners. ↘ BOX 24 Switzerland abolished the status of civil servants in 2002. In Germany, the options for adjusting civil servants' pensions are limited by constitutional law (Kohlstruck, 2023, pp. 237 f.). ↘ ITEM 380

A comprehensive reform of civil servants' pensions must be decided individually by the federal level and the Länder. For political reasons, the implementation of such a reform may therefore prove difficult. Alternatively, a reduction in future pension expenditure could also be achieved by **adjusting the current civil servant appointment policy in Germany**. In doing so, civil servants' could be limited to tasks in the areas of public safety and order, defence and justice, following the Austrian model. Almost half of the occupational groups with civil servant status in Germany do not perform sovereign tasks. ↘ CHART 116 Hiring regular employees instead of civil servants' for these areas of responsibility would place a greater burden on the budgets of the federal government, Länder and municipalities governments in the short to medium term, due to the payments of contributions to the GRV and occupational pensions. **In the long term,** however, **expenditure on pensions** would be reduced and public budgets relieved. Such a reform would also have to be coordinated between the federal level, the Länder and the municipalities, and become binding for all, so that federal competition does not lead to divergent behaviour, as was observed in the past, for example, with the appointment of tenured teachers as civil servants. Some Länder abolished it, but later reintroduced it in order to prevent a possible migration of teachers to other Länder and to counteract emerging personnel shortages (Gehrke and Bruno-Latocha, 2013).

↘ BOX 24

Focus: reforms of civil servants' pensions in Austria

Several reforms **of** civil servants' pensions have been implemented in Austria since the late 1990s. The aim was to increase flexibility and mobility in the labour market and to create more transparency and efficiency in the public administration (Kucsko-Stadlmayer, 2010, p. 3). In 1997, 'politicians' pensions' were initially abolished – over long transition periods – so that politicians became part of the regular system of retirement provisions. Furthermore, since the 'pragmatisation stop' (stop of the appointment of civil servants) in 2003, the appointment of civil servants in Austria has been more restrictive than in Germany. ↘ TABLE 23 Since then, occupational groups with a 'contractual alternative' to public service have no longer become civil servants (BMKÖS Austria, 2022).

While in 2021 pension expenditure for civil servants in Austria was larger at 2.55 % of GDP compared to Germany (1.68 %), ↘ TABLE 23 the 'pragmatisation stop' is likely to lead to **significant savings in the future,** as the **number of civil servants** has been **declining since 2003**

(BMKÖS Austria, 2022). According to projections, pension expenditure will decline by 58 % between 2020 and 2070 and reach 0.7 % of GDP (BMF Austria, 2021).

The General Pension Act (APG) transferred civil servants' pensions to the uniform pension system for employed people (APG 2005). According to the Austrian Parliament, this reform is expected to save a cumulative €563 million between 2005 and 2030 (Parlament Österreich, 2004). **Despite the harmonisation of the pension systems, civil servants pay contributions to a separate fund** (Blank et al., 2016). Comprehensive transitional arrangements were created, depending on the date of birth and the date on which a person was appointed to the civil service. ↘ ITEM 522 APPENDIX

↘ TABLE 23

**Key figures for civil servants' pensions in Germany and Austria in 2021**

| | Germany | Austria |
|---|---|---|
| Occupational groups with the status of civil servant | – Public security and order (including police) | – Public security and order (including police) |
| | – Legal protection (justice) | – Legal protection (justice) |
| | – Defence | – Defence |
| | – Fiscal administration | |
| | – Central and political administration[1] | |
| | – Education, science and research | |
| | – Social security | |
| | – Housing, urban development, energy and water management | |
| | – Transportation and communication | |
| | – Other occupational groups[2] | |
| Civil servants' pensioners (share of total pensioners[3] in %) | 1,737,280 (6.36) | 328,078 (11.74) |
| Civil servants, judges, soldiers[4] (share of people in employment in %) | 1,906,100 (4.24) | 67,779 (1.49) |
| Pension expenses in € billion (share of GDP in %) | 60.7 (1.68) | 10.3 (2.55) |

1 – Political leadership, central administration, foreign affairs.  2 – Financial management, food, agriculture and forestry, health, environment, sport and recreation.  3 – For Germany: Sum of civil servants' pensioners and insured pensioners in the statutory pension scheme (GRV), including widow's/widower's, orphan's and child-raising pensions. For Austria: Sum of recipients of retirement or pension benefits, of pension benefits for widows/widowers and orphans, of retirement and pension benefits for widows/widowers, of pension under insurance law or a combination thereof.  4 – Professional and temporary soldiers.

Sources: Audit Office Austria (2022), BMKÖS Austria (2022), DRV Bund (2022c), Eurostat, Federal Statistical Office, Statistics Austria, own calculations

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## Inclusion of self-employed people into the GRV

400. The **federal government's coalition agreement announces the introduction of compulsory retirement provisions for the self-employed** (SPD, Bündnis 90/Die Grünen and FDP, 2021). It is to be applied to all self-employed people who are not already subject to a compulsory old-age pension

scheme and become self-employed for the first time. As a default solution, non-compulsorily insured people would be included as contributors into the GRV. Alternatively, they can choose a private pension product. Assuming that this reform is implemented from 2024 for newly self-employed people and that half of the self-employed opt for the GRV, this reform option, similar to the inclusion of civil servants without separate pension funds, leads to a short- to medium-term financial relief for the GRV. In the 2030s, there will be **small but favourable effects on the benefit level and the contribution rate**. ↘ CHART 120 How much financial relief the GRV will ultimately experience will depend largely on how the right to choose is exercised, and is therefore subject to uncertainty (Werding and Läpple, 2022). When the first cohorts included in the GRV reach retirement age, the relief effects will decline again. Even in 2080, however, the inclusion of the self-employed will still have slightly favourable effects on the benefit level and the contribution rate. Since more people will be insured in the GRV overall, pension expenditure will rise in the medium and long term. However, some pressure will be taken from the federal subsidies due to the higher contribution payments.

401. In addition to a temporary financial relief for the GRV, there are two other reasons for integrating the **self-employed into the GRV**. In 2021, there were around 3.0 million people in Germany who **were not compulsorily insured** and had no occupational retirement provision (BMAS, 2021). Marked pension gaps can be assumed among these self-employed people (Werding, 2016). Integration could ease the burden on the welfare state in other areas, such as basic income support for the elderly. At the same time, integration would avoid free rider behaviour. Self-employed people who have not made private provisions and only reach a low pension level due to low incomes run the risk of having to apply for basic income support in old age. Those who are not compulsorily insured are entitled to this benefit without having to pay contributions, while statutory pensions are set off against basic income support (GCEE Annual Report 2020 item 636).

402. It would be conceivable to lay down an age limit by which people who are already self-employed would also become subject to compulsory insurance (Werding and Läpple, 2022). A high **age limit** would expand the group of people subject to compulsory insurance, thus increasing contributions to the GRV and contributing to a stronger short- to medium-term financial relief for the GRV. At the same time, however, the favourable effects for pension finances will be reversed more quickly because additional pension entitlements take effect earlier (Werding and Läpple, 2022).

## 3. Raising the statutory retirement age

403. Because of rising life expectancy, the **period during which pensions are paid out is lengthening relative to the duration of the employment phase**. This is contributing to the growing financial strain on the GRV. For example, between 1980 and 2012 the remaining life expectancy (further life expectancy) ↘ GLOSSARY for 65-year-olds, which then measured the years of life still to be expected at the retirement age, rose by 4.5 years for men and 4.0 years for women. During the same period, the statutory retirement age remained at 65. ↘ CHART 122

**Life expectancy and retirement age for old-age pensions**
The average period during which pensions are paid out has increased significantly in recent years



| | |
|---|---|
| Life expectancy at birth: ■ Men ■ Women | → Further life expectancy for 65-year-olds |
| Retirement age: ● Actual[2] ● Statutory[3] | □ Average period during which pensions are paid out in years[4] |
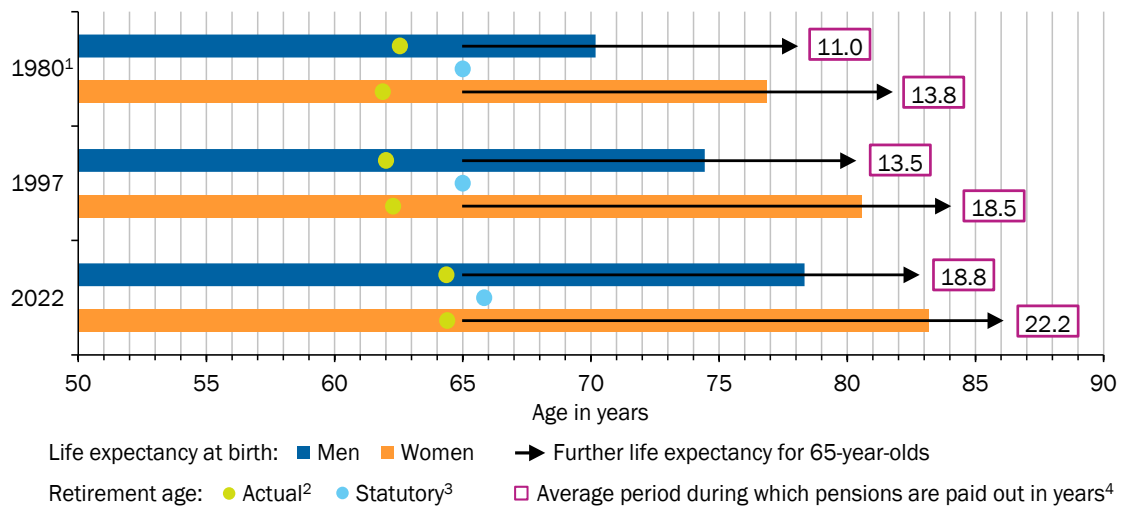
1 – Former West Germany.  2 – Retirement due to old age.  3 – Women could retire at age 60 in the years 1980 and 1997. The statutory retirement age is to gradually be raised from 65 to 67. The retirement age of 65 years and 10 months for 2022 applies to those born in 1956 who reached retirement age in that year. The retirement age of 67 years applies to all those born after 1963.  4 – For all kinds of GRV pensions.

Sources: Deutsche Rentenversicherung, Federal Statistical Office
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Up to 2031, the statutory retirement age is to be gradually raised to 67. This partially takes the increase in life expectancy into account. ↘ CHART 122 However, it can be assumed that further life expectancy will continue to rise in the future. ↘ CHART 109 This makes it likely that the retirement age will be raised further.

It would be important to communicate such an increase in the statutory retirement age at an early stage. **Statutory retirement ages** are often perceived as psychological **reference points** for the **socially accepted time of retirement** (Seibold, 2021; Reck and Seibold, 2022). Raising statutory retirement ages therefore has an impact on the actual retirement age. By announcing them early, future age limits are established as new reference points. Furthermore, people retiring in the 2030s have planning reliability. The current increase in the retirement age was announced in 2007 with a lead time of five years (GCEE Annual Report 2007 item 263).

404. Because of various options for drawing pensions early, the actual retirement age has on average been below the statutory retirement age since the 1970s. ↘ ITEM 369 However, the actual retirement age has approached the statutory retirement age by about 1.5 years over the past 25 years (DRV Bund, 2022b, p. 131, 2023b, p. 65). ↘ CHART 369 Empirical evidence shows that many employees retire at the earliest possible moment, although continued employment beyond this date would often be particularly attractive financially (Seibold, 2021; Reck and Seibold, 2022). In order to achieve longer actual labour-force participation, in addition to raising the statutory retirement age, the reasons for **early retirement should** therefore **be** better understood at the same time, and the incentives **reviewed**. ↘ ITEMS 417 FF.

405. The statutory **retirement age could be gradually raised further** following the current increase up to 2031 and **linked to further life expectancy** (von Weizsäcker and Werding, 2002; Börsch-Supan, 2007; Deutsche Bundesbank, 2016, 2019; Board of Academic Advisers to the Federal Minister for Economic Affairs and Energy, 2021; GCEE Annual Report 2020 item 639). Various options are available here. For example, the statutory retirement age can be raised in predefined steps, as is currently the case, or it can be linked via simple rules to the development of further life expectancy. Automatic links between parameters of the pension system and macroeconomic or demographic indicators are also a widespread approach internationally (OECD, 2021, Chapter 2). For example, several countries regularly adjust the statutory retirement age to match the development of life expectancy (completely in Denmark and Italy, partially in the Netherlands and Portugal).

International comparisons show that the timing varies for setting a new retirement age and for when it becomes effective. For example, Estonia, Finland and Portugal evaluate the development of life expectancy annually, Italy every two years. The increase in the statutory retirement age then takes effect two or three years later. The maximum increase in the retirement age is limited to two to three months per revision (OECD, 2021, p. 95). In Sweden, a new target retirement age is set annually and applied six years later. Projections of the development of the target age are made for younger cohorts (Pensionsmyndigheten, 2023a). ↘ ITEM 525 APPENDIX Once an automatic mechanism has been established, political discussions on adjustments to the retirement age do not have to be repeated on a regular basis. Rather, adjustments would be linked to demographic facts (Werding, 2016; Board of Academic Advisors to the BMWi, 2021).
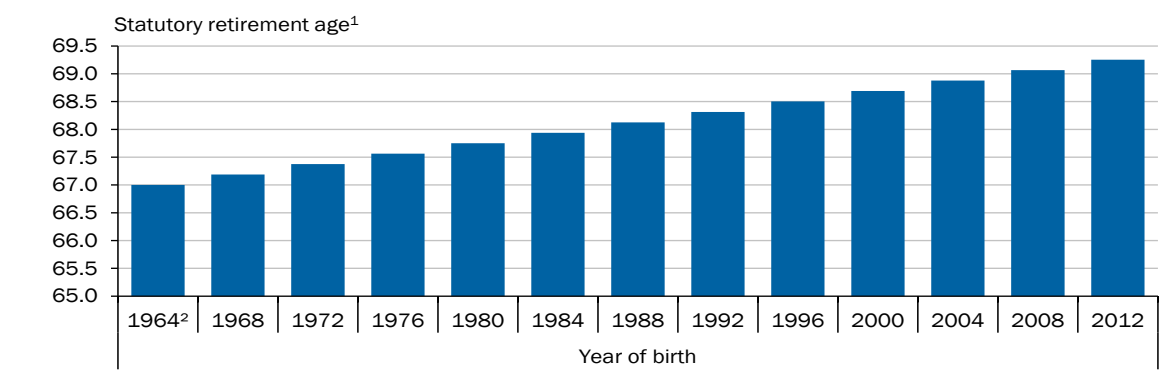
406. By dividing an additional year of life expectancy in old age according to a 2:1 rule (two-thirds as a longer employment phase and one-third as a longer retirement phase; see Börsch-Supan, 2007; Börsch-Supan and Rausch, 2020), today's **relation between the average duration of pension receipt** (20 years) and **the average length of the employment phase** (40 years) **could be kept roughly constant** (Board of Academic Advisors to the BMWi, 2021; DRV Bund, 2022b, pp. 125, 147). This proposal can be considered moderate compared to other European countries. In Denmark and Italy, for example, an increase in life expectancy is fully matched by a corresponding rise in the retirement age. ↘ ITEM 525 APPENDIX In the middle variant of the 15th coordinated population forecast, the increase in the long-term life expectancy of 67-year-olds is assumed to be about 8.4 months per decade. According to the 2:1 rule, the statutory retirement age should correspondingly rise by just under six months every 10 years from 2031 onwards (Werding, 2023). ↘ CHART 123

**Compared to other projections, the increase in the retirement age** is lower according to the 2:1 rule (Werding, 2016; Board of Academic Advisors to the BMWi, 2021). The reason for this is that all of these studies took the increase in life expectancy at birth as a basis. This increase is higher than the increase in further life expectancy at the age of 67. In a study by the Bundesbank (2019), in which the statutory retirement age is also linked to the development of further life expectancy, a longer duration of the employment phase is assumed, which is why

**Statutory retirement age by birth cohorts when applying the 2:1 rule**
The statutory retirement age increases by just under 6 months every 10 years

Statutory retirement age[1]

| Year of birth | 1964[2] | 1968 | 1972 | 1976 | 1980 | 1984 | 1988 | 1992 | 1996 | 2000 | 2004 | 2008 | 2012 |

1 – Assuming an increase in the further life expectancy of 67-year-olds of 8.4 months per decade from 2031 onwards.
2 – In 2031, persons born in 1964 will reach the statutory retirement age of 67 years (current legal status).

Sources: Federal Statistical Office, own calculations
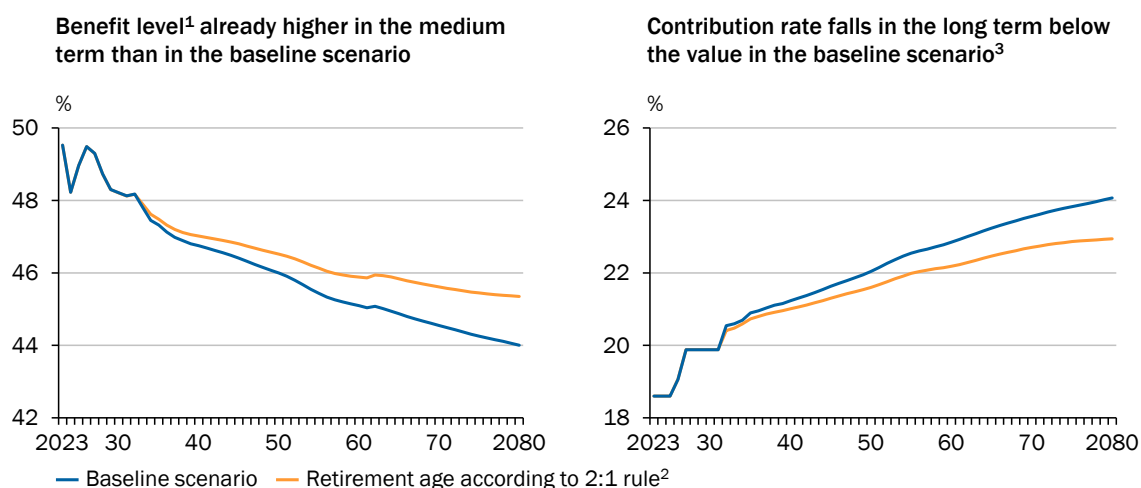© Sachverständigenrat | 23-418-01

the calculation is also different. Specifically, not the average years of insurance are defined as the employment phase but the statutory retirement age minus 20 years. According to this study, an additional year of life would have to be divided according to a 7:3 rule in order to keep the relative length of the retirement period stable. According to the study, this would lead to an increase in the retirement age of 7.5 months per decade.

407. **Simulation results** for the implementation of the 2:1 rule show that with a **dynamisation of the statutory retirement age** from 2031, the **first favourable effects** will already be visible in 2035. ↘ CHART 124 However, the longer-term effects are much stronger. In 2060 the benefit level will be 0.8 percentage points higher and in 2080 1.3 percentage points higher than the baseline values. Furthermore, there will be marked contribution-reducing effects up to 2080. Under the current law for annual benefit upratings, the 2:1 rule has a beneficial effect on both the contribution rate and the benefit level. On the one hand, with a higher statutory retirement age fewer resources have to be spent on the GRV. On the other, there are also positive effects on GDP, which reduces the percentage of federal subsidies in GDP.

408. The lack of acceptance among the population for raising the statutory retirement age is often based on the notion that older employees are not able to work beyond the age threshold that is currently applicable. Studies show that the **health of people of retirement age is good on average** (Board of Academic Advisors to the BMWi, 2021). According to Eurostat, expected remaining "healthy life years at age 65" averaged 10.8 years in Germany in 2021. Nevertheless, it should be noted that people's state of health is very heterogeneous. According to data from the Robert Koch Institute (2015, p. 150), more than 60 % of women over 64 with a low socioeconomic status rate their health status as moderate to very poor. Among women with a high socioeconomic status, this figure is significantly lower at around 30 %. These differences are somewhat smaller among men.

↘ CHART 124

**Effects of raising the statutory retirement age by applying the 2:1 rule**



Benefit level[1] already higher in the medium term than in the baseline scenario

Contribution rate falls in the long term below the value in the baseline scenario[3]

— Baseline scenario   — Retirement age according to 2:1 rule[2]

1 – Net before tax, ratio of the standard pension (45 earnings points) to the average income of contributors.  2 – Increase of the retirement age in accordance with the 2:1 rule in relation to the further life expectancy at the age of 67.  3 – Contribution rate to the GRV as a percentage of the gross wage. Half of this is paid by employers, the other half by employees.

Source: SIM.21

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## Heterogeneous life expectancy and risk of poverty in old age

409. There is a correlation between socioeconomic status and individual life expectancy (Luy et al., 2015; Wenau et al., 2019). ↘ ITEM 431 Therefore, the **consequences of an increase in the statutory retirement age can vary strongly for different groups of people**. For people with shorter lives, an increase in the retirement age leads to a larger fall in the relative length of the retirement period than for people with longer lives. Life expectancy also varies with the level of education. A study by Luy et al. (2015) shows that men in Germany with a low level of education have an average of 3.7 years shorter life expectancy than men with a high level of education. For women, there is no statistically significant difference.

Furthermore, life expectancy is positively correlated with individual income in Germany, like in other countries such as the United States (Chetty et al., 2016; Lampert et al., 2019; Haan et al., 2020). ↘ ITEM 431 A very high physical or mental workload during a person's working life is correlated with a lower further life expectancy among both men and women (Brussig and Schulz, 2019). Empirical evidence also shows that life expectancy differs by up to five years between single occupational groups, even independent of income and socio-economic status (Guenzel et al., 2023). For example, employees in health and care professions, as well as mathematicians and ICT professionals are consistently the occupational groups with the lowest life expectancy. Farmers, fishers and foresters, on the other hand, have the highest life expectancy. The literature also suggests that **pension access** itself has an **impact on old-age health and mortality** which varies with socioeconomic status and, especially, with the employment biography (Insler, 2014; Celidoni and Rebba, 2017; Gorry et al., 2018; Bellés-Obrero et al., 2023).

410. **When the statutory retirement age is raised, health reasons and working in physically demanding jobs may play a role in preventing individuals in certain occupations and in the range of lower incomes from staying in employment up until the specified age**. Sauré et al. (2023) show that occupations are an important predictor of the actual retirement age at the individual level. For example, physically demanding jobs can be better performed at a younger age (Mika, 2013; Mika and Söhn, 2017). Studies on the roofing trade, i.e. an occupation associated with a high exposure to danger and physical strain, show high migration to other industries (Brussig and Jansen, 2019). Only 14 % of western German roofers who were already working in this occupation at the age of 30 continue for longer than 30 years (Brussig and Jansen, 2019).

This highlights the **importance of retraining and continuing education for older workers** in parallel with a reform of the retirement age. Individuals in physically demanding jobs at the start of their careers may find themselves working in cognitive or administrative fields at an older age. Work experience, which increases with age, often also opens up new opportunities to develop within the field of activity one is trained for and, for example, to take over the training of junior staff. In the past, persons performing simple service activities or working in administrative occupations most frequently received a disability pension (Mika, 2013). This shows that not only people with physical occupations can have difficulties in carrying out their work in old age, but often also people with cognitive routine activities. At the same time, the empirical evidence shows that, parallel to demographic ageing, many job descriptions are becoming increasingly age-friendly. However, this applies more to academic professions than to non-academic jobs (Acemoglu et al., 2022).

411. In Germany, special regulations apply to selected occupational groups, either by statutory law or by collective bargaining. For example, miners, who are exposed to particular stress and risks, have earlier access to old-age pensions. However, **enshrining further occupation-specific special rules in law** would not be very expedient. On the one hand, it **would be difficult to implement in practice** because statutory pension insurance currently has no information on individual occupations. On the other hand, **sectors with strong lobbies could benefit** significantly more than less well-represented groups. Furthermore, since many people cannot be clearly assigned to one occupational group over the entire course of their working life, minimum periods of activity in certain occupations would have to be defined in each case. Individual retirement becomes more difficult to plan where there is a multitude of special rules. This could also lead to a fragmentation of the pension system, like in France or Greece (Board of Academic Advisors to the BMWi, 2021). Nevertheless, an increase in the retirement age requires **hardship provisions** for people who cannot work until the statutory retirement age. With regard to existing rules, this requires an adequate disability pension. ↘ ITEM 415 More targeted regulations on early retirement also aim in this direction. ↘ ITEM 417

412. The expert report by Buslei et al. (2023a) shows that **raising the retirement age** leads to a **slight decrease in the at-risk-of-poverty rate in old age**. ↘ BOX 25 Due to a more favourable ratio of pension contributions to pension

expenditure, the benefit level would become higher in the long term. ↘ CHART 130 Longer employment biographies also lead to individually higher pension entitlements in old age. However, the effects differ for different educational groups. For those with a low level of education, the at-risk-of-poverty rate increases slightly and temporarily, while for those with a medium and high education level it decreases over the entire simulation period. This suggests that people with less education are less able to adjust their employment biography to a rising statutory retirement age. ↘ ITEM 409

↘ BOX 25

### Focus: risk of poverty in old age

Unlike absolute measures of poverty, which play an important role for developing countries, the risk of poverty in old age is used as a relative poverty measure in many industrialised countries. ↘ ITEM 295 The risk of poverty in old age can be measured by two different indicators. First, by the **at-risk-of-poverty rate for the elderly**, which indicates the proportion of people aged 65 or older whose net equivalised income ↘ GLOSSARY is less than 60 % of the median net equivalised income. Second, relative poverty in old age can be measured by the basic-income-support ratio in old age. It indicates the proportion of people aged 65 or older receiving basic income support. Basic income support is based on a defined level of need, which represents the socio-cultural subsistence minimum.

According to the Socio-Economic Panel (SOEP), the **at-risk-of-poverty rate for older people** in Germany was around 15 % in 2019. **Since 2010,** this rate has **increased** by 1.2 percentage points. Compared to the total population, whose at-risk-of-poverty rate was around 17 % in 2019, older people are thus less at risk of poverty. ↘ ITEM 304 The percentage of people aged 65 or older who were eligible for basic income support in 2019 was 4.4 % (Buslei et al., 2023a).

The GCEE has commissioned the German Institute for Economic Research (DIW) with an expert opinion meant to simulate the development of the at-risk-of-poverty rate in old age under current pension law until 2045 (Buslei et al., 2023a). The authors consider both the at-risk-of-poverty rate and the basic-income-support ratio, which in the simulations corresponds to an entitlement ratio (with full take-up). Overall, the at-risk-of-poverty rate in old age is not expected to increase until 2045 under the current law. Considerable heterogeneity emerges, however, when the simulation is differentiated by socioeconomic and demographic characteristics. ↘ CHART 125 **Women are more at risk of poverty** in old age than men. The at-risk-of-poverty rate for women, in contrast to men, will continue to rise up to 2045. This is partly due to the increase in the proportion of single-person households in old age, in which women are more frequently represented due to their longer life expectancy. However, some of the effects at the gender level are probably due to the fact that the further increase in female labour-force participation since 2020 was not taken into account in the simulation and that future changes in labour-force participation are also not anticipated due to the model used. There are also differences between qualification levels. **People with low qualifications are most frequently at risk of poverty in old age**, although their risk is expected to decline slightly until 2045. A slight increase is expected for people with medium qualifications. Differences in the risk of poverty can also be observed within the group of elderly people older than 65. Younger elderly people between 65 and 79 are less likely to be at risk of poverty than the average. Persons aged 80 or older, on the other hand, have an above-average at-risk-of-poverty rate, although it is expected to decline up to 2045. This difference is mainly due to single-person households, which applies to about half of the very old, compared to only a third of the younger elderly between 65 and 79.

The situation is **somewhat different** when the **basic-income-support ratio** is observed. This ratio will rise by 1.9 percentage points already by 2025 and by a further 1.4 percentage points

to 7.7 % in 2045. This effect is also visible after differentiation according to individual characteristics and is essentially due to the allowance for the basic pension introduced with basic income support in 2021. Poverty has therefore not increased, but the group of entitled people has been expanded through the basic pension. Otherwise, the results are largely qualitatively comparable to those of the at-risk-of-poverty rate. However, there is a striking difference when differentiating by gender. The basic-income-support ratio was at a comparable level for men and women in 2019. The difference between men and women when comparing the at-risk-of-poverty rate is mainly due to the different income distribution in the area between the amount of basic income support and the at-risk-of-poverty threshold, which applies to more women.

↘ CHART 125

**Development of poverty risk in old age[1] according to socio-economic and -demographic characteristics**
Poverty risk mainly affects women, single-person households, people with low education and the very old



At-risk-of-poverty rate[2]

■ 2019  ■ 2035  ☐ 2045
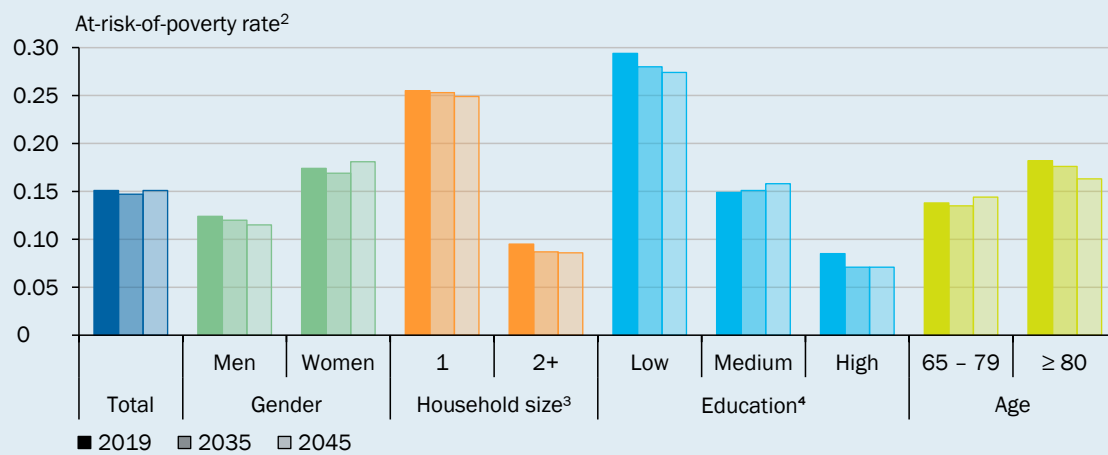
1 – Persons aged 65 or older.  2 – Income position of less than 60 % of the median net equivalent income.
3 – Number of household members.  4 – Educational level classification according to ISCED-97 levels: Low (levels 0 to 2); Medium (levels 3 and 4); High (levels 5 and 6).

Source: Buslei et al. (2023a)
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## Disability pension

413. **Extending the employment phase increases the likelihood of a person becoming unable to work** before retirement. This risk is **covered** in the GRV by **disability pensions** (GCEE Annual Report 2020 item 666). In 2021, the percentage of first-time recipients of a disability pension was 16.2 % of the total number of first-time pensioners. They made up a significantly lower percentage of existing pensions at 8.9 % (DRV Bund, 2022b, pp. 65, 179). Access to the disability pension is only possible under certain medical conditions. About 50 % of the applications made for disability pensions (338,014 in 2022) were approved in recent years. In 2022, the average age of access to disability pensions was 53.9 (DRV Bund, 2023c). Mental illnesses are currently the most frequent cause for the first-time receipt of a disability pension (DRV Bund, 2022b, p. 99; GCEE Annual Report 2020 item 666).

414. In addition to earnings points from pension contributions, benefit entitlements linked to a non-contributory period are also relevant for the **calculation of the disability pension.** The **non-contributory period** places people with a reduced earnings capacity in the same position as if they had continued to pay pension contributions in the period between the onset of their reduced earnings capacity and the statutory retirement age. ↘ ITEM 415 These notional payments correspond to the average value of annual pension contributions paid before the onset of the incapacity for work. The amount of the monthly disability pension is then derived from earnings points, both from the contribution years and the non-contributory period, and the current pension value (DRV Bund, 2023d). The **disability pension is subject to deductions** if claimed before the age of 65 (as from 2024, in 2023 64 years and 10 months; DRV Bund, 2023d).

415. In 2021, the average **pension payment for disability pensions** was €917 for pensions at award, **about 10 % lower than for old-age pensions** (DRV Bund, 2022b, p. 191). The lower payments of the disability pension relative to the old-age pension are mainly due to deductions for early retirement. The lower average pension payment is reflected in the number of cases of basic income support. In 2021, this was significantly higher among those receiving a disability pension (14.8 %) than for those receiving an old-age pension (2.7 %; DRV Bund, 2022b, p. 273). Should the statutory retirement age be raised after 2031, **access to the** disability pension could be **simplified for people of advanced working age**. This would enable people who are unable to adjust to the higher age limit for health reasons to retire early (GCEE Annual Report 2020 item 665). Physically and mentally stressed occupational groups would particularly benefit from this. ↘ ITEM 410 **If the standard retirement age is linked to further life expectancy, the non-contributory period for disability pensions should also be increased accordingly**. This would ensure that the benefits from the disability pension do not decline relative to the old-age pension.

## Restrict access to early retirement without deductions

416. Since 2014, older workers have the option of retiring early without deductions (section 236b of SGB VI) via the 'old-age pension for the especially long-term insured' (prerequisite: at least 45 years of contributions). This regulation counteracts the aim of encouraging older people to work longer and represents a major item among expenditure on non-contributory benefits (NBLs). ↘ BOX 23 ↘ ITEM 369 However, first-time pension recipients to date show that the **number of contribution years** alone **is not a good criterion for addressing physically and mentally stressed occupational groups** (Börsch-Supan et al., 2015; Schüler, 2022; Dolls and Krolage, 2023). The regulation is used in particular by people with medium incomes and above-average health (Schüler, 2022) and therefore does not specifically target social hardship. The **pension for people insured for a particularly long time should** therefore **be abolished**. It exacerbates already existing labour shortages and places a strain on pension finances.

417. In order to preserve the possibility of early retirement without deductions for people in occupations that are more affected by an increase in the retirement age, ↘ ITEM 409 the current pension for people insured for a particularly long period of

time could be converted into a pension without deductions for long-serving low-income earners. Instead of being conditional solely on the number of contribution years, for example, the regulation could be replaced by one in which only people with at least 40 years of insurance contributions who earned, on average, an annual income of no more than 60 % of the average income, could retire early without deductions. **This would restrict early retirement without deductions to people who have always earned only a low income**. Particularly people with physically demanding occupations would also benefit from this regulation, as they are often paid less (Statistisches Bundesamt, 2023d). In order to prevent long-time part-time employees from being eligible according to these access criteria, the DRV should collect data on working hours of insured people in the future and use this information as an additional access criterion.

418. Such a reform is less targeted than a regulation that explicitly gives access to early retirement without deductions for physically and mentally stressed groups (Grossmann et al., 2021). However, it should at least **reduce some of the occupational heterogeneity** and would also be **quick and unbureaucratic to implement**. For example, the GRV does not currently have any information on individual occupations or the stress that they entail. However, it does have detailed information on people's monthly income over their entire employment history, and this could be supplemented in the future with information on regular working hours. Additional occupation-specific regulations could be negotiated by collective bargaining parties on the basis of collective agreements.

419. The option of **early retirement with deductions** already exists within the framework of the 'old-age pension for the long-term insured' (prerequisite: at least 35 years of contributions). If this regulation were maintained, people with higher incomes would also have the chance to draw a pension before the statutory retirement age. In view of the GRV's finances, actuarially **fair deductions and bonuses** should be applied which would have to be somewhat higher than the currently applicable deductions and bonuses (Werding, 2007; GCEE Annual Report 2020 item 655). Actuarially fair deductions and supplements reallocate the respective pension bonuses to the longer or shorter duration in a way that does not create financial incentives for early retirement.

## 4. Changes in uprating mechanisms for pensions

420. In order to stabilise the contribution rate in the long term, since the early 2000s annual benefit upratings have been reduced by the contribution-rate factor and the sustainability factor (GCEE Annual Report 2020, Box 15). ↘ BACKGROUND INFO 18 As a result of this, the benefit level has fallen from 52.9 % in 2002 to 48.1 % in 2022 (DRV Bund, 2022b, p. 256). In view of the demographic ageing process, the question of **reforming the mechanism for benefit upratings** has resurfaced. This section discusses how the sustainability factor can be adjusted in such a way that a larger share of the burdens arising from the retirement of baby boomers can be borne by them. In addition, the effects of uprating pensions after award in line with consumer prices are analysed.

## Adjustment of the sustainability factor

421. The sustainability factor is an automatic adjustment mechanism ↘ ITEMS 525 FF. AP-PENDIX that takes demographic ageing into account in the formula for annual benefit upratings (GCEE Annual Report 2020, Box 15). The system dependency ratio ↘ GLOSSARY indicates the ratio between the number of (equivalent) pensioners (weighted by the amount of their individual benefit entitlements) and the number of contributors (weighted by the amount of their individual pension contributions). **If the system dependency ratio rises, the sustainability factor has a dampening effect on benefit upratings**. Within the sustainability factor, a factor $\alpha$ ↘ GLOSSARY weights the change in the dependency ratio (GCEE Annual Report 2020 box 15). Since the introduction of the sustainability factor in 2005, the factor $\alpha$ has had a value of 0.25. As a result, a quarter of the burden of demographic ageing is borne by pensioners (via reduced benefit upratings) and three quarters by the actively insured ↘ GLOSSARY (via higher contribution rates). The current value of the factor $\alpha$ was chosen in 2005 in such a way that a contribution rate of 22 % would be reached in 2030 (Deutscher Bundestag, 2003, p. 23).

422. The system dependency ratio has only been subject to minor fluctuations since 2005 (DRV Bund, 2022b, p. 269). It will increase significantly, however, with the retirement of the baby-boomer cohorts. Due to this dynamic, the sustainability factor will have a much stronger impact on pension adjustments in the coming years than it has had to date. However, this **expenditure-curbing effect is unlikely to be sufficient to stabilise the finances** of the GRV. ↘ ITEM 364

423. If the **factor $\alpha$** in the sustainability factor were to be **increased from 0.25 to 0.5**, this would lead to an **even distribution of the demographic burden**

↘ CHART 126
**Effects of changes in the mechanism for benefit upratings**
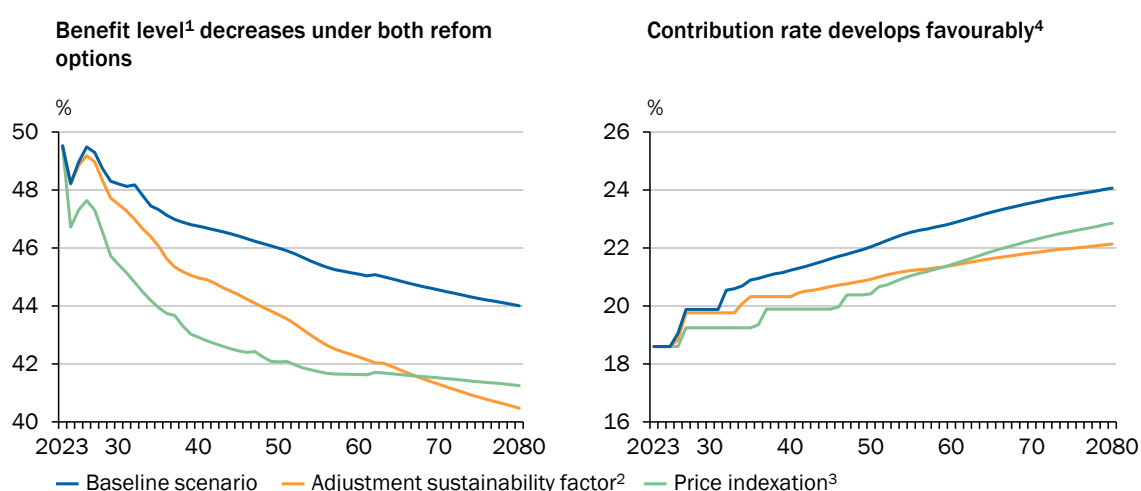


Benefit level[1] decreases under both refom options

Contribution rate develops favourably[4]

— Baseline scenario    — Adjustment sustainability factor[2]    — Price indexation[3]

1 – Net before tax, ratio of the standard pension (45 earnings points) to the average income of contributors.  2 – Increase in the factor α in the sustainability factor to 0.5.  3 – Pensions after award linked to inflation. Benefit level refers to the weighted average of all pensioners.  4 – Contribution rate to the statutory pension scheme as a percentage of the gross wage. Half of this is paid by employers, the other half by employees.

Source: SIM.21
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**between pensioners and actively insured people**. The effects of such a reform would be fully felt during the retirement of the baby boomers. In 2035, the contribution rate would be 0.6 and in 2080 1.9 percentage points below the contribution rate in the baseline scenario. ↘ CHART 126 Federal subsidies would develop much more moderately relative to GDP. At the same time, however, the pension level would also fall significantly to 40.5 % by 2080. The federal government's target of a pension level of 48 % would be undercut for the first time in 2029. ↘ ITEM 374

424. A **declining benefit level** would lead to an **increase in the at-risk-of-poverty rate** in Germany. ↘ BOX 25 Currently, a high proportion of **single people, women and people in Eastern Germany** receive an income in old age that is only just above the at-risk-of-poverty threshold (Buslei et al., 2023a). The increase in the at-risk-of-poverty rate is therefore likely to be **especially pronounced** in these groups.

## Price indexation

425. Currently, the benefit upratings essentially follow the development of wages. ↘ BACKGROUND INFO 18 Instead, it would be **conceivable** to take wage trends into account only in the assessment of pensions at award and to **link pensions after award to consumer prices**. This would guarantee the purchasing power of pensions after award, but they would no longer participate in future real wage increases. Uprating pensions after award in line with prices is the predominant method used internationally. ↘ ITEMS 525 FF. APPENDIX As early as in the 1990s, Italy and France switched from wage indexation to price indexation of their pensions. Other countries such as Switzerland, Finland and Poland use a mixture of wage- and consumer-price trends for indexing pensions (OECD, 2021, pp. 34 ff.). Automatic price indexation is generally viewed critically from a monetary-policy perspective, but this does not apply to the indexation of pensions after award. An escalation of inflation is unlikely due to the lack of second-round effects and the fact that pensions are not taken into account in the price index (Deutsche Bundesbank, 2022a).

426. Provided that real wages rise, **price indexation** helps to **reduce financial pressure on the GRV**. In such a scenario, pensions after award (defined here as the pensions of people who also received a pension in the previous year) rise less strongly when linked to consumer prices than pensions at award (pensions of people receiving a pension for the first time), which continue to develop in line with wages. The simulation of price indexation shows that pension expenditure increases less than in the baseline scenario. ↘ CHART 126 The sustainability factor therefore has less of an attenuating effect on pension adjustments, which leads to a higher benefit level for pensions at award compared to the baseline scenario.

It is important to **distinguish the benefit level of pensions at award from that of pensions after award**. In the case of price indexation, the latter has to be calculated individually for each cohort and falls below the benefit level of pensions at award because of the widening gap between individual pensions and wages. **The average benefit level** shown, **weighted by the respective**

**shares of pensions at award and after award, is therefore below the baseline scenario**. ↘ CHART 126 From the mid-2030s to the end of the 2070s, however, the benefit level of pensions at award will be at least 1.5 percentage points above the baseline scenario (Werding, 2023). The individual benefit level declines significantly the longer a pension is drawn, which corresponds to a redistribution from people with longer lives to people with shorter lives, thus taking into account different life expectancies (Board of Academic Advisors to the BMWi, 2021). The contribution rates develop more moderately in the medium and long term and are lower than in the baseline scenario. Significantly lower pension expenditure can be expected in the long term due to the lower growth rates of pensions after award. Federal subsidies, measured as a percentage of GDP, remain almost constant in the long term at −0.1 percentage points compared to the baseline scenario.

427.  An intermediate course, which weakens the effects of pure price indexation shown above, might consist in a **mixed form of wage and price indexation**, as has already been implemented in other countries. ↘ ITEM 425 Depending on the weighting, real wage developments are then taken into account to a greater or lesser extent, so that pensions after award participate differently in financing the benefit level of pensions at award (Werding, 2023). Accordingly, the effects on the contribution rate and the average benefit level in the simulations are weaker than in the scenario of full price indexation shown here.

428.  The assumption that wages grow faster than prices has generally been fulfilled in the past 30 years (GCEE Annual Report 2020 item 629). According to figures from the Federal Statistical Office, wages have risen about 13 percentage points more strongly than prices during this time. Should phases of **declining real wages** nevertheless occur (most recently in 2020 and 2022), a full or partial link with prices will cause **pensions after award to rise faster than wages**. Such a scenario could put additional strain on the GRV's financing situation, as pension expenditure would increase faster than contributions. This shows that switching to a price indexation of pensions after award would make the GRV's finances dependent on the difference between wage and price growth, but would typically have an unburdening effect (Board of Academic Advisors to the BMWi, 2021).

      **A safeguard clause** and a **compensation factor** could be introduced as a **safety mechanism** in the event of declining real wages. The safeguard clause would prevent pensions after award from rising more quickly than pensions at award. As soon as real wages start to rise again, the compensation factor would make up for the price indexation foregone for pensions after award. Such a safety mechanism would ensure that the loss of purchasing power suffered by existing pensioners could be made up for.

429.  For older employees, price indexation of pensions after award leads to a **positive incentive effect for longer employment**, because with each additional year in work, the **pension continues to participate in wage growth** (Board of Academic Advisors to the BMWi, 2021). With regard to the risk of poverty in old age, however, such a reform could have negative effects. Already today, the at-risk-of-poverty rate in old age is particularly high among very old people (80 years

and older). ⭧ BOX 25 **Linking pensions after award to prices** would have an additional **unfavourable effect on the risk of poverty in old age**, as the benefit level decreases with age. Other countries specifically seek to counteract this effect for those with low pension entitlements. Austria, for example, adjusts the lower pensions with an increase higher than the inflation rate, while Slovakia guarantees a minimum increase (OECD, 2021, pp. 35 f.). However, such measures lessen the favourable effects on the financing situation of the GRV shown above.

## 5. Redistribution in the GRV

430. Introducing **redistributive elements** in the assessment of pensions **can limit** an increase in **old-age poverty** when the average benefit level falls. Redistributive elements already exist in the GRV, for example in the **widows' and widowers'** pensions ⭧ ITEM 444 and the crediting of child-rearing periods. Furthermore, **there are regulations** that lead to **disproportionately high pensions for people with low benefit entitlements**. These include the basic pension introduced in 2021 (GCEE Annual Report 2020 items 684 ff.) and the pension according to minimum income or minimum earnings points from the 1970s and 1990s.

431. In addition to intended elements of redistribution, there is also **unintended redistribution** in the GRV **due to systematically different further life expectancies** and thus to the length of the period for which pensions are drawn. Since further life expectancy is positively correlated with income (von Gaudecker and Scholz, 2007; Breyer and Hupfeld, 2009), people with high earnings draw their pensions for longer on average than people with low earnings. ⭧ ITEM 409 Haan et al. (2020) show that the life expectancy of Western German employees born between 1947 and 1949 and covered by the GRV is seven years longer for men from the highest income decile than for men from the lowest income decile. As a result, the ten percent of people with highest income earn on average a 46 % higher return on their pension contributions than the ten percent of people with lowest income (Richter and Werding, 2020). This correlation cannot be interpreted causally, as other, unobservable factors may be decisive. Nevertheless, **individual income** is a **good indicator of** personal **life expectancy**. ⭧ ITEM 409

### Pension assessment graduated according to income

432. In addition to reforms ensuring financial sustainability, the GRV also needs reforms to ensure the adequacy of pension benefits. ⭧ ITEM 364 **One way** to reduce the **risk of old-age poverty** is a **progressive benefit assessment**. Here, people with **low incomes** and consequently low benefit entitlements receive **disproportionately high pensions**. To finance this measure, **pensions for groups on higher income are reduced**. This leads to a redistribution of pension benefits within the group of pensioners (**intragenerational redistribution**). A progressive benefit assessment could cushion social hardship caused by a declining benefit level, since recipients of high pensions then pay disproportionately high contributions. ⭧ ITEM 420
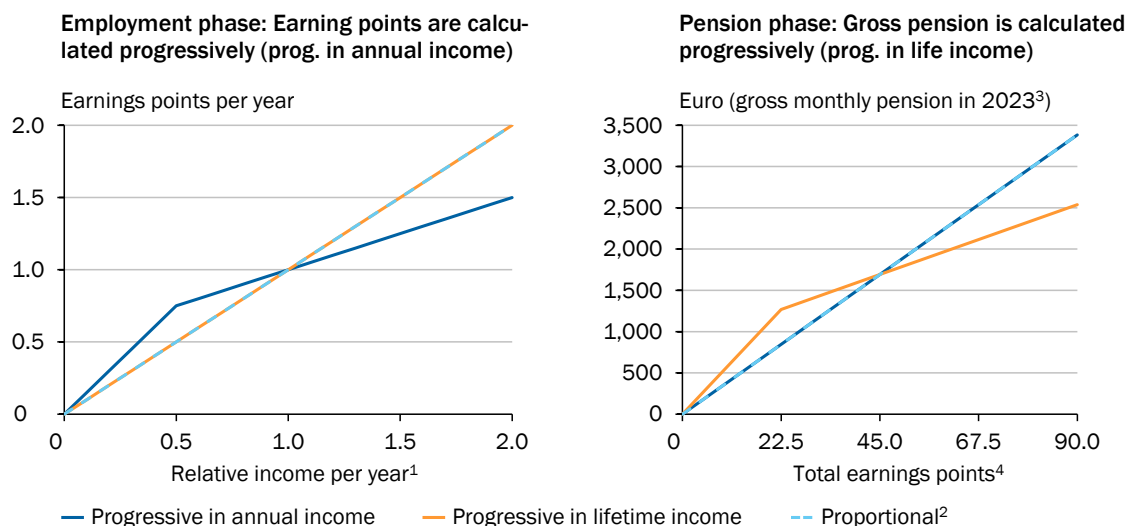
433. The progressive income-tax schedule combined with a **deferred taxation of pensions** currently leads to a relative upvaluation of lower benefit entitlements compared to higher benefit entitlements. However, the **redistributive effect** of pension taxation is quite small. On the one hand, average tax rates at retirement age are relatively low (Beznoska, 2022). On the other, due to the progressive income tax rate, this particularly favours people with a high income, as pension contributions are tax-deductible during the employment phase.

The **basic pension** introduced in 2021 is designed to favour specific groups. In particular, many low-income earners do not meet the criterion of a minimum duration of the contribution period and therefore do not receive a basic-pension top-up (Ragnitz, 2020; Börsch-Supan and Goll, 2021). For these reasons, further measures could be useful to specifically raise the pensions of low-income people.

434. There are basically **two ways** to implement a **benefit assessment** in the GRV that is **differentiated according to income**. On the one hand, monthly pensions can be graded progressively according to the sum of earnings points acquired in the course of a working life. ↘ CHART 127 RIGHT The benefit assessment would then be **graduated** according to **lifetime income** subject to social insurance contributions. This is not unusual internationally. The benefit assessment in the United States, for example, is based on three income brackets. In the lowest bracket, the earnings replacement ratio is 90 %. As income rises it falls to 32 % and finally to 15 % (Social Security Administration, 2023). **Another variant** of a benefit assessment graduated according to lifetime income **protects a specified minimum amount** of benefit entitlements (Sockelschutzmodell). **A**

↘ CHART 127

**Progressive pension assessment: Redistribution based on annual and lifetime income**



Employment phase: Earning points are calculated progressively (prog. in annual income)

Pension phase: Gross pension is calculated progressively (prog. in life income)

— Progressive in annual income    — Progressive in lifetime income    -- Proportional[2]

1 – Individual annual income relative to the average income subject to social insurance contributions (43,142 euro in 2023).  2 – Current GRV assessment scheme (GCEE Annual Report 2020 box 15).  3 – The current pension value is 37.60 euro in 2023. This corresponds to the monthly pension per earnings point in proportional and progressive systems, if there is redistribution based on annual income. It also corresponds to the value per earnings point of the standard pensioner in the progressive system when there is redistribution based on lifetime earnings.  4 – Sum of the annual earnings points during the employment phase at retirement.

Sources: Kindermann and Püschel (2023b), own calculations
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**certain benefit level is guaranteed only for a certain number of earnings points that have been reached**. For this number of earning points it is guaranteed that monthly pensions per earnings point will be uprated in line with annual wage growth. Pensions relating to earnings points acquired in excess of this threshold are uprated in line with current rules or with even stronger reductions (Börsch-Supan and Rausch, 2020; Board of Academic Advisors to the BMWi, 2021).

**Alternatively**, it is possible to calculate the **earnings points reached per year** in a progressive fashion. ↘ CHART 127 LEFT In this case, people receive a disproportionately high number of earnings points in years when their income subject to social insurance contributions is low. Above a certain annual income subject to social insurance contributions, the increase of the number of earnings points in income becomes disproportionately low. The monthly pension is then calculated directly in proportion to the accumulated earnings points at the time of retirement. This leads to a **redistribution based on annual income**.

435. Intragenerational redistribution within the pension system would most likely **reduce the at-risk-of-poverty rate in old age**, which will probably be around **15 %** over the next 20 years. ↘ BOX 25 At the same time, the **number of people over 64 will rise** from 18.4 million in 2021 to 22.5 million in 2045, according to figures from the Federal Statistical Office. This will result in an **absolute increase in poverty in old age despite a constant at-risk-of-poverty rate**. It will also be reflected in the expenditure for basic income support. Thus, the number of recipients of basic income support in old age could continue to increase. Since 2003, the number of recipients of basic income support among old-

↘ CHART 128

**Simulation for the distribution of pension benefits: Progressive and proportional pension system**



Single persons: More centred distribution of pension benefits

Relative frequency

Pension benefit/average income[1]
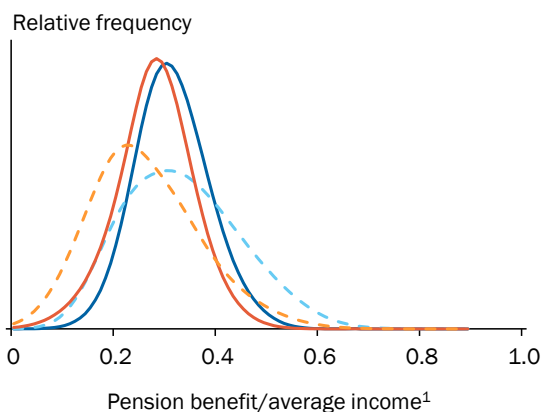
Married persons: Proportion of women without own pension decreases

Relative frequency

Pension benefit/average income[1]
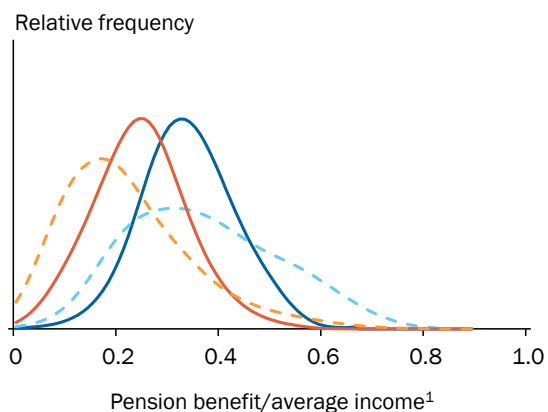
Men:   —— Progressive in annual income   - - Proportional
Women: —— Progressive in annual income   - - Proportional

1 – Amount of the monthly gross pension relative to the average income subject to social insurance contributions (3,595.20 euro per month in 2023).

Source: Kindermann and Püschel (2023b)
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age pension recipients rose from 158,000 people (1.2 %) to 433,000 people (2.7 %) in 2021 (DRV Bund, 2022b, p. 273).

A progressive benefit assessment could slow this trend down and relieve the welfare state. A simulation study shows that a progressive reform can **significantly reduce the inequality of pension payments**. ↘ CHART 128 On average, women would receive higher pensions than in the proportional system. Thi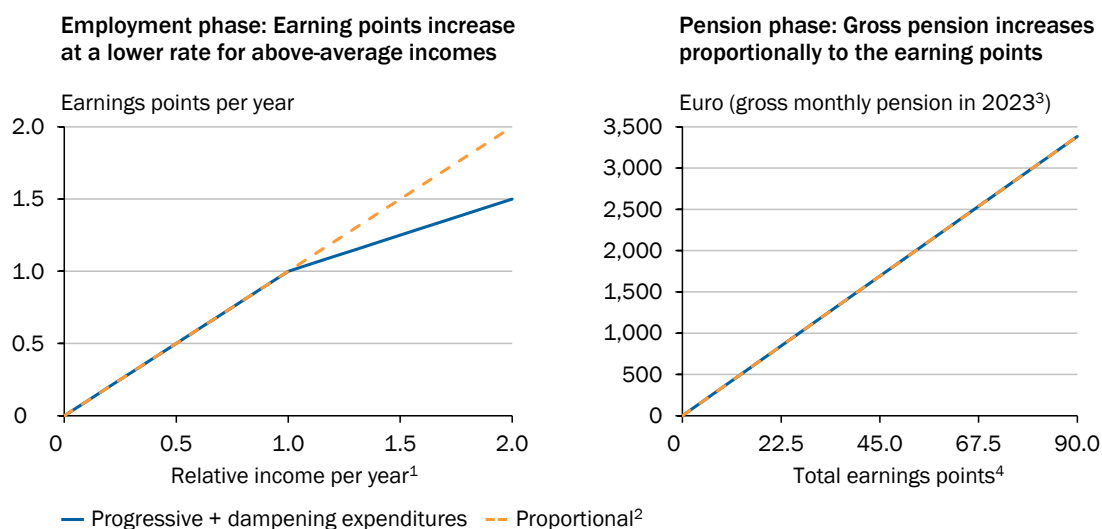s would especially benefit single women with children and a low level of education. The proportion of married women with very low or no benefit entitlements of their own would decrease. Men's pension payments would be distributed in a much more centred manner in a progressive pension system. Married men would bear the brunt of the reform. ↘ CHART 128 In addition, a **progressive pension assessment** could also **neutralise the GRV's unintended, regressive distribution effects**. ↘ ZIFFER 431

436. The simulations made for this chapter indicate that pension expenditure could increase slightly in the long term as a result of a progressive benefit assessment. In this case, the reform would meet the criterion of **adequacy**, but not the criterion of **financial sustainability**. To avoid this, a **variant of the progressive pension assessment that definitely curbs expenditure** could be implemented by leaving the assessment of earnings points unchanged for people with below-average incomes and only reducing pensions paid to people with higher income. ↘ CHART 129

437. Assuming that the current pension value (amount paid per earnings point) develops according to the baseline scenario, the pension would not change for people whose income has never been higher than the average income. People with an

↘ CHART 129

**Example of a progressive benefit assessment reducing expenditure**

**Employment phase: Earning points increase at a lower rate for above-average incomes**

**Pension phase: Gross pension increases proportionally to the earning points**



Earnings points per year

Euro (gross monthly pension in 2023[3])

Relative income per year[1]

Total earnings points[4]

— Progressive + dampening expenditures  – – Proportional[2]
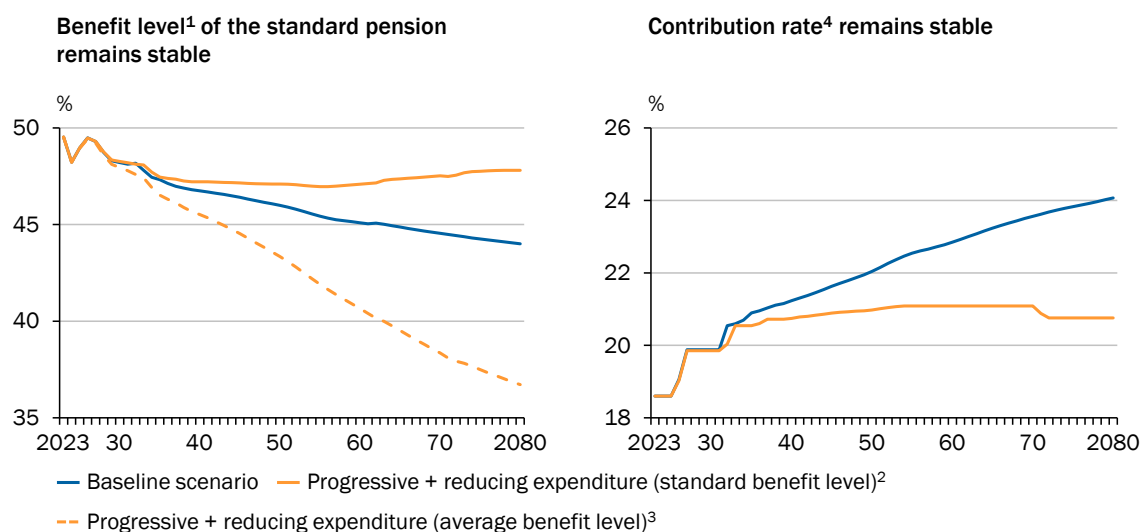
1 – Individual annual income relative to the average income subject to social insurance contributions (43,142 euro in 2023).  2 – Current GRV assessment scheme (GCEE Annual Report 2020 box 15).  3 – The current pension value is 37.60 euro in 2023.  4 – Sum of the annual earnings points from the employment phase at pension entry.

Source: own calculations

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**Effects of an expenditure-dampening progressive benefit assessment in the GRV**



Benefit level[1] of the standard pension remains stable

Contribution rate[4] remains stable

— Baseline scenario  — Progressive + reducing expenditure (standard benefit level)[2]
-- Progressive + reducing expenditure (average benefit level)[3]

1 – Net before tax.  2 – Ratio of standard pension to average income of contributors.  3 – Ratio of average pension to average income of contributors.  4 – Contribution to the statutory pension scheme as a percentage of the gross wage. Half of this is paid by employers, the other half by employees.

Source: SIM.21
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**above-average annual income, on the other hand, would bear the brunt of the reform**. This would probably have an impact on their labour. ↘ BOX 26 Because of the reduction in benefits for people with above-average annual incomes, the average benefit level of all pensions will fall significantly over time. ↘ CHART 130 LEFT At the same time, total GRV expenditure will also fall. This has further effects on the development of pensions. The sustainability factor, which reacts to changes in the ratio between contributions and pension expenditure, has the effect that the pension value develops much more favourably over time than in the baseline scenario. This means that each earning point is matched by a higher monthly pension payment. Although the benefit assessment for **low-income households** does not change, they **should** therefore **benefit from the reform**. The benefit level of a standard pension could thus be permanently stabilised at around 47 %. ↘ CHART 130 LEFT At the same time, the contribution rate would rise only moderately and exceed the 21 % mark only briefly. ↘ CHART 130 RIGHT

## Reservations about a progressive pension assessment

438. A **progressive benefit assessment deviates from the benefit principle** involved in a proportional assessment ↘ GLOSSARY. However, group-specific regulations and the basic pension also violate this principle in benefit assessments under current rules (GCEE Annual Report 2020 items 684 ff.). ↘ BOX 23 The **solidarity principle is a recognised justification for a breach**. For example, the Scientific Service of the German Bundestag (2023) writes in a position paper that, subject to compliance with regulations on provisions made to safeguard existing standards (grandfather clause), a progressive benefit assessment is possible in principle from a constitutional point of view and justified by the solidarity principle, but that each reform must be **examined on a case-by-case basis**.

In such cases, deviations from the benefit principle are also supported by the majority of the German population. For example, representative survey data show that a large majority of the population favours more redistribution in the German pension system. 77 % of respondents would prefer a pension system that redistributes in favour of low earners (Breunig et al., 2022). This suggests that a **relaxation of the benefit principle** motivated by the solidarity principle **need not be detrimental for acceptance of the GRV among the population**; rather, it might possibly even increase it. Furthermore, the data show that **only about 31.6 %** of the respondents **know** that **GRV pensions are always assessed proportionally to a person's lifetime income** subject to social insurance contributions.

439. Nevertheless, an objection against a progressive benefit assessment could be that such a redistribution should be carried out outside the GRV in order to involve all employed people. This objection loses significance in view of the fact that between 92 % and 99 % of all people of retirement age currently receive a statutory pension based on at least parts of their employment biography (Werding, 2023). If civil servants and self-employed people without compulsory cover were also included in the GRV, ⭲ ITEMS 395 FF. the coverage of employed people and their earned incomes would increase even further. Attempts at financing redistribution within the GRV with additional tax funds could impair the character of pension insurance as an individual, contribution-based retirement provision much more than the **comparatively transparent proposal of a progressive benefit assessment within the GRV**. ⭲ BOX 29 For a tax-based solution, individual benefit entitlements ⭲ CHART 127 RIGHT would have to be divided into a contribution-financed component that is uniformly (linearly) assessed for all insured people and a (progressively) redistributive component that depends on the annual income subject to contributions and is to be financed by higher federal subsidies. The distribution effects of financing these subsidies from general tax revenue would be practically uncontrollable.

Both **increased tax financing** and a **renunciation of progressive benefit assessment** also entail the risk that the GRV, in connection with demographic ageing, will result in ever **greater intergenerational redistribution**, which can in no way be justified as an alternative to the intragenerational burden-sharing discussed here.

440. With a progressive assessment, **pensions for high-income people** would be reduced. Theoretically, this creates incentives for high-income people to avoid membership in the GRV. In practice, however, it need not be feared that this would lead to a change in the structure of those insured under the GRV. Compulsorily insured people who wanted to shift their employment out of the GRV would have to enter self-employment in a way that is not classified as pseudo-self-employment according to the applicable criteria. The legal scope for this is very limited (DRV Bund, 2023e). This is also reflected in the data. In the **past, there has been no discernible tendency for dependent employees to increasingly switch to self-employment in order to escape the GRV when faced with a benefit level that was continuously falling**. ⭲ ITEM 420 The number of actively insured people in the GRV (all people who acquire pension entitlements as

of 31.12. of a reporting year, e.g. based on pension contributions) increased from 33.8 million in 2000 to 39.0 million in 2020. The number of passively insured people (people who have acquired pension entitlements in the past, but do not acquire further pension entitlements in the reporting year) remained largely constant over the same period (2000: 17.3 million, 2020: 17.7 million; DRV Bund, 2022b, p. 14). According to figures from the Federal Statistical Office, the number of self-employed also remained constant at around 4.0 million over the same period. These trends were observed even though the benefit level fell from 52.9 % in 2000 to 48.2 % in 2020 (DRV Bund, 2022b, p. 256) and the implicit rate of return of the GRV has been declining since the early 1990s (GCEE Annual Report 2016 items 667 ff.).

441. In the case of a progressive benefit assessment, the GRV's revenue from contributions might also decline because insured people could reduce or give up their labour-force participation. Including redistributive measures in the pension system clearly affects employment incentives (equity-efficiency trade-off). Various studies show that aggregate **labour supply decreases** when redistribution via the pension system increases (Fehr et al., 2011; French et al., 2022; Kindermann and Püschel, 2023a). It would be detrimental to the GRV's financial situation if a progressive pension reform led to a significant **decline in contributions**. For a progressive pension reform, special attention must therefore be paid to an **efficient design**. A study by Kindermann and Püschel (2023b) shows that the negative effects on aggregate labour supply are moderate in the case of a redistribution based on annual income subject to social insurance contributions, and are significantly lower than in the case of a redistribution based on lifetime income subject to social insurance contributions. ↘ BOX 26

↘ BOX 26

**Analysis: incentives to work and redistribution in the GRV**

Basically, redistributive elements in the GRV have an effect on incentives to work. **If pension contributions are redistributed**, the importance of individual contributions, i.e. the role of one's own income for the benefit assessment diminishes. **Part of the pension contribution** then has the **character of an implicit tax** on earned income. Various empirical studies show that the design of the pension system does have an influence on labour supply (Gelber et al., 2016; Manoli and Weber, 2016). This is the case even if retirement is still in the distant future (French et al., 2022).

Measures that use **lifetime earnings as the decisive factor for redistribution** create negative incentives to work. Once an insured person has acquired a certain number of earnings points, further contributions to the GRV only lead to a below-average increase in individual benefit entitlements. ↘ CHART 127 RIGHT Since **missing years of work are implicitly subsidised, early retirement becomes financially attractive. People with permanently low income** benefit from higher benefit entitlements, **as do people who are not permanently tied to the GRV and have only paid contributions for a few years**. These might be people who become self-employed in the course of their lives and then make provisions outside the GRV, or people whose employment biography contains long interruptions.

The **negative incentives to work can be reduced** if redistribution in the GRV is realised **on the basis of annual** income instead of lifetime income (Kindermann and Püschel, 2023b). This would require a change in the assessment scheme of the earnings points. ↘ CHART 127 LEFT For

**higher earners**, i.e. for people with an annual income above the kink in the assessment schedule, this system also leads to negative incentives to work, especially along the intensive margin. Their earnings points rise at a lower rate when annual income increases. However, since the **expansion of benefit entitlements for low earners is** directly **linked to annual pension contributions**, it is particularly attractive for this group to increase their work intensity in order to raise the returns to their contributions. This can also create an incentive for marginally employed people to switch to employment that is subject to social insurance contributions. Whether a person can benefit from the redistribution in a given year depends exclusively on their annual income. This is particularly important for people whose income deteriorates temporarily or permanently over the course of their lives, e.g. for health or family reasons. In this variant of a progressive benefit assessment, the **number of years with contributions has special significance for the assessment of pension benefits. This provides a positive incentive for all insured people to work at the extensive margin.** For higher earners, a large number of contribution years is necessary to achieve a pension that is significantly above the average. For low-income earners, incentives to be continuously employed and to pay social insurance contributions increases, as only then they can benefit from higher benefits (Saez, 2002; Kindermann and Püschel, 2023b). This can compensate for distorting effects at the intensive margin, but may not completely offset them. A study by Kindermann and Püschel (2023b) estimates that aggregate labour supply declines by about 0.3 % with a progressive pension reform that redistributes on the basis of annual earnings. In the case of a redistribution based on lifetime earnings, the effect is about 4.3 times higher at 1.3 %. This is mainly due to the fact that, with redistribution based on annual income, the number of people employed increases by 0.7 percentage points, while in the other case it falls by 0.9 percentage points.

442. A **progressive benefit assessment has important advantages over a tax-financed expansion of pension benefits, especially for low earners**. In 2022, about 23 % of the total federal budget was channelled into the GRV (BMF, 2023a; DRV Bund, 2023f). In view of the GRV's strained financing situation, expanding benefits not covered by contributions (NBLs) is not advisable. Likewise, a tax-financed expansion of benefits may also create negative incentives to work. Moreover, a progressive benefit assessment does not interfere with income differences within families. It is true that second earners benefit particularly from redistributive measures in the pension system. However, an equalisation takes place within the family, as the pensions of main earners decrease. An elaborate income test, as is used for example in the case of the basic pension, could thus be dispensed with.

## Reform option: widow's and widower's pension

443. Due to the rising proportion of households with double earners, fewer people will have to rely on the full benefits of the **widows' and widowers' pension** in the future. However, at present it is **still an important instrument of retirement provision**. It has been **criticised** for many years **because of its design** (Frey et al., 2014). Surviving spouses are entitled to up to 55 % of the pension entitlements of the deceased as well as a supplementary child allowance. This remained unchanged even after the introduction of the Mothers' Pension II in 2018, although, as a result of this reform, special consideration is now given to child-rearing periods. If the deceased's own pension exceeds an **income threshold**

(currently €992.64 net, which corresponds to a gross pension with 30.7 earnings points), 40 % of the excess amount is offset against the widows' and widowers' pension (DRV Bund, 2023g).

444. The **widows' and widowers'** pension implicitly reduces the value of one's own pension contributions as soon as they exceed the above-mentioned threshold. This **distorts labour supply among second earners** (Werding, 2008; Giupponi, 2019; Böheim and Topf, 2020). Moreover, the expected pension payment in old age reduces the incentives to make one's own provisions and thus to engage in employment even before the allowance is exceeded. Moreover, the different treatment of pension entitlements in the case of divorce and bereavement is questionable. In the case of divorce, the earnings points acquired by both partners during the marriage are divided in half and corresponding payments are made only in the pension phase. In order to be able to support oneself after a divorce until retirement and to acquire further earnings points, there is therefore a direct incentive for the second earner to take up or expand work. In the event of a divorce, steady employment histories during the marriage are key to the later economic situation of both partners (GCEE Annual Report 2021 item 317). The large widows' or widowers' pension, on the other hand, is paid from the age of 47 until death and thus reduces the incentive to work until retirement.

445. **Simulations show that labour supply among second earners increases when the widows' and widowers' pension is abolished** and that this is mainly based on increased labour-force participation. Sánchez-Marcos and Bethencourt (2018) quantify an increase in average labour-force participation depending on age as 2 percentage points for 25- to 29-year-olds and almost 10 percentage points for people in the 60 to 65 age group. Groneck and Wallenius (2021) find the largest effects on women's labour-market participation among married people (+4.6 percentage points) and among those with a low level of education (+7.6 percentage points). If survivors' benefits are reduced only gradually, the simulation by Nishiyama (2019) suggests that this slows the increase in women's labour-force participation to only 0.5 percentage points after 10 years and 1 percentage point after 51 years. The lower employment incentives for men associated with such a reform have little effect on their labour supply in all simulations. Empirical studies of reforms of survivors' pensions in Italy in 1995 and in Austria in 2000 suggest that, in the case of an unexpected fall in income for widowed people of working age and without receipt of their own pension, the loss of income is fully offset by increased labour-market participation (Giupponi, 2019; Böheim and Topf, 2020).

446. A reform of the widows' and widowers' pension could **make pension splitting the new standard**, an option that is already available today. With pension splitting, the benefit entitlements of both spouses from the period of marriage are added up and divided in half when pensions are disbursed (DRV Bund, 2023g). Both spouses thus have benefit entitlements which, in the event of the death of one partner, remain free of deductions and also continue to exist in the event of remarriage. ↘ BOX 27 At the same time, in the case of pension splitting, married couples forego a widows' or widowers' pension in the employment phase. Only for the child-rearing period (up to the age of 18 of a child) there is a possibility of

drawing a child-rearing pension in the event of the partner's premature death (DRV Bund, 2023h). The negative income effect increases the incentive to work and counteracts a falling incentive to work due to the higher marginal burden of 50 %. In the case of widows' and widowers' pensions, the marginal burden is only 40 % for income above the relevant threshold. **In the future,** this may lead to an **increase in employment and additional contributions** to the GRV. ↘ ITEMS 389 FF. If pension splitting becomes the standard, there will also be fewer NBLs (in 2020: €16.2 billion ↘ BOX 23), which will have a favourable effect on the financing situation of the GRV. The financial dependence between spouses could also be reduced due to the increasing incentives to work. Furthermore, the additional income in the employment phase can be used for one's own provision, and the risk of poverty in old age can be reduced. ↘ ITEM 444

447. Compared to the widows' and widowers' pension, **pension splitting reduces benefit entitlements for the surviving partner** in the event of the partner's death. This applies to both the main and second earner. ↘ CHART 131 If the second earner dies, the main earner loses 50 % of the earnings points jointly acquired during the marriage in the case of pension splitting. This also applies to the second earner in the event that the main earner dies. Low earners could therefore face a higher risk of poverty in the event of their partner's death compared to the status quo. To prevent this risk, one option that can be considered – similar to the Swedish premium pension – is that couples postpone part of their individual pension entitlements in favour of a higher coverage for the survivor in the event of death (Börsch-Supan et al., 2017, p. 22).

↘ BOX 27

**Focus: effect of a reform of widows' and widowers' pensions in three situations**

The following describes the financial **differences between the widows' or widowers' pension and pension splitting** at retirement **using three examples.** In all three cases, both spouses acquired 15 earnings points before marriage. Two children are born during the marriage, as a result of which the second earner acquires another **six earnings points for the years of raring children.** The main earner has acquired a further 30 earnings points during the marriage and dies after reaching the age of 65. The number of **earnings points acquired by the second earner** during the marriage varies as follows:

 - the second earner was no longer in employment after the marriage and thus did not acquire **any more earnings points;**

 - the second earner worked part-time after the marriage and thus acquired **15 additional** earnings points;

 - the second earner worked full-time after the marriage and thus acquired **24 additional** earnings points.

The examples show that the level of the **pension for the surviving person** is significantly lower in each case with pension splitting. This is the result of current entitlements that are not covered by corresponding contributions. This applies to the supplementary child allowance as well as to payments from the widows' and widowers' pension that exceed the pension splitting. ↘ BOX 23 ↘ CHART 131 Compared to the widows' and widowers' pension, however, the second earner's pension payment is reduced more, as the supplementary child allowance, too, is no longer applicable.

↘ CHART 131

**Comparison of pension benefits for survivors: widow's and widower's pensions and pension splitting[1]**

**Surviving person is the main earner**

Gross monthly pension in euro



**Surviving person is the second earner**

Gross monthly pension in euro



- ■ Individually acquired pension claims (before marriage)
- ■ Individually acquired pension claims (during marriage)
- ■ Pension claims from widows' and widowers' pensions
- ■ Child benefits from widows' and widowers' pension
- ■ 50 % of the pension claims of the deceased partner (during marriage)
- ■ 50 % of the pension claims of the surviving partner (during marriage)

1 – Initial situation: Spouse acquires 15 earnings points before marriage, the main earner acquires 30 earnings points after marriage, the second earner raises two children during the marriage and thus acquires six earnings points.  2 – Second earner does not work during marriage.  3 – Second earner works part-time during the marriage and acquires 15 earnings points.  4 – Second earner works full-time during marriage and acquires 24 earnings points.

Sources: DRV Bund (2023g), own calculations
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448. The **transition to pension splitting** would involve an almost complete abolishment of the widows' or widowers' pension. In order to **make** such a reform **socially acceptable**, married couples who made their decisions on labour-supply and old-age provision on the basis of the old regulation should therefore be

granted a transition period. As in Sweden, a temporary pension could also be introduced in the new regulation, which, especially in the event of the partner's death before the end of the employment phase, would initially secure the surviving partner's livelihood (Ginther and Sundström, 2010; Pensionsmyndigheten, 2023b).

# 6. Funded pension as a supplement to the current pension system

449. In view of the increasing burden that financing the GRV places on contributors, **expanding funded pensions outside the GRV is an important element for supplementing the pay-as-you-go financed GRV**. In this way, part of the burden of future retirement provisions arising from demographic ageing can be brought forward. This would relieve the burden on insured people in the future. Objections are occasionally raised, with reference to a thought expressed by Mackenroth (1952), who argued that bringing burdens forward in this way is not possible because social expenditure, like all economic consumption, can only be covered from national income of the current year. However, this static view, based on a macroeconomic ex post identity for closed economies, is inappropriate with regard to analyses of future economic dynamics, and its application to open economies like Germany is flawed (Werding et al., 2023).

450. The federal government is currently developing plans for setting up a **stock-market fund within the GRV, the 'Generationenkapital'**. The long-term task is to help stabilising the benefit level offered by the GRV and, at the same time, limit the increase in contribution rates. ↘ BOX 28 However, the current proposal is hardly suitable for making a significant contribution to financing the GRV.

↘ BOX 28

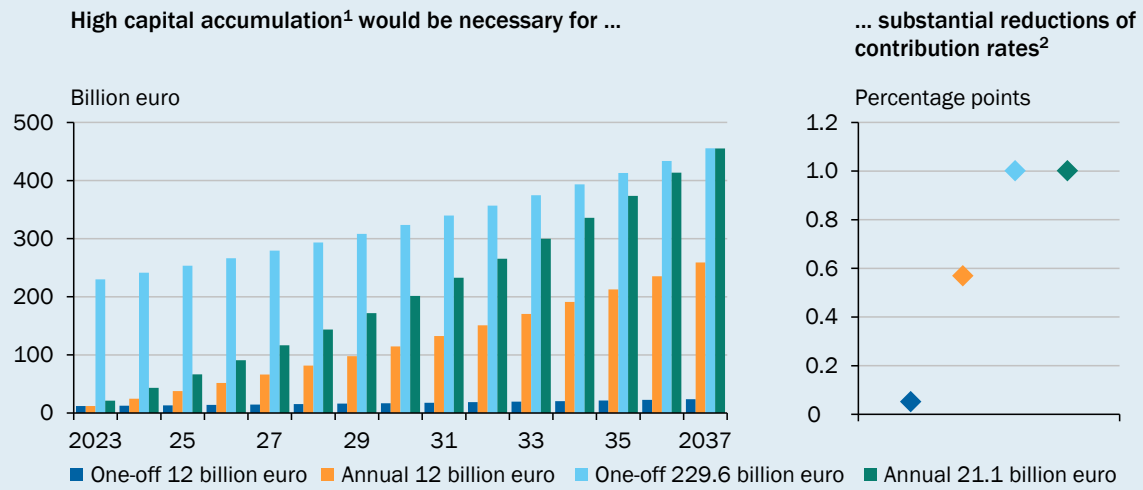**Focus: federal government's reform proposal on a 'Generationenkapital'**

The federal government is currently planning a **supplementary (or partial) funding of the GRV via a fund set up by the state** ("Generationenkapital"). Reserves of the fund are to be managed by the German Nuclear Waste Management Fund (KENFO) and invested on the stock market (BMF, 2023b). The financing is to come from the federal budget and not from contributions of the insured. For 2023, an initial financing is planned in the form of a federal loan of €10 billion. In subsequent years, the capital stock is to increase through further loans, possibly also through grants and the transfer of existing shares held by the Federation. According to media reports, annual inflows of €12 billion are now being discussed (Hildebrand et al., 2023). In addition, all dividends from the fund's stock holdings would initially be reinvested. The accumulation period is to end in the mid-2030s at the earliest.

The capital accumulated at the end of the accumulation period is to remain in the fund afterwards and will not be paid out. Instead, it is planned to use only annual returns, minus interest payable on the loans received by the fund, to finance current benefits provided by the GRV. If **only annual surpluses are paid out** from the Generationenkapital, the **effects on the GRV's budget** are likely to remain **small**. With annual real returns of 5 %, a capital stock of €23.8 billion would be available by 2037 from a one-off payment of €12 billion. ↘ CHART 132 In the following year, returns to this capital stock could be used to reduce the contribution rate by

0.05 percentage points. With annual inflows of €12 billion, a capital stock of €258.9 billion would be accumulated by 2037, which could then reduce the contribution rate by 0.6 percentage points. A capital stock of €454.6 billion would be necessary for a contribution-rate reduction of one percentage point from 2038 onwards. This could be achieved either with annual injections of €21.1 billion or through an initial one-off payment in 2023 of €229.6 billion.

↘ CHART 132

**Effects of different accumulation paths for the Generationenkapital**



High capital accumulation[1] would be necessary for …

Billion euro

… substantial reductions of contribution rates[2]

Percentage points

Legend: ■ One-off 12 billion euro  ■ Annual 12 billion euro  ■ One-off 229.6 billion euro  ■ Annual 21.1 billion euro

1 – Assumes an annual yield-interest differential of 5 %.  2 – Assuming contribution rate and contribution income of the GRV in 2038 according to the baseline simulation in chart 135.

Source: own calculations
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The prospect has been raised of a possible **transfer of existing state shareholdings**. The shares held in Deutsche Post, Deutsche Telekom, Airbus and Commerzbank are likely to be particularly relevant. Altogether, these holdings currently have a stock-market value of about €57 billion. However, a complete transfer to the Generationenkapital would lead to a **poorly diversified portfolio**, which would be detrimental for the stability of returns. Alternatively, the state holdings would have to be reduced in order to diversify the overall portfolio. Moreover, the state's dividend income from these companies was around €1.5 billion last year, which would then be withdrawn from the federal budget and make only a very small contribution to covering GRV disbursements.

The coalition agreement stipulates that "the **funded part of the statutory pension [...] must be permanently protected as property** of the collective of contributors" (SPD, Bündnis 90/Die Grünen and FDP, 2021). To bring this about, the reserves could be allocated to individual pension accounts and earn interest there on an ongoing basis according to the respective fund yield. For example, the fund shares could be distributed equally among all citizens aged between 15 and 67 and vary with the duration of participation (Fuest et al., 2019). However, to date there is no reference to this in the BMF's proposal (2023b). In the case of collectively held reserves, transparency for the respective contributors is lacking and there is a political risk that the reserves will be used up too quickly or even diverted for other purposes. ↘ ITEM 383

If the Generationenkapital is to make **significant contributions as a funded supplement to the GRV, the planned volume would have to be increased**. In addition, consideration would have to be given to partial or full **contribution financing**, so that not only interest income but also individual claims on capital reserves are available in old age. In this case, it would definitely have to be ensured, for reasons of transparency and property protection, that the reserves formed from the contributions are attributed to the contributors in **individual accounts** and

serve their individual retirement provision. This would give the broad mass of the population access to the capital market, which could positively influence the stock-market culture. ⭝ ITEM 267 As part of the statutory compulsory provision, such a solution would have certain advantages, in particular a higher commitment, compared to voluntary supplementary provision outside the GRV. Moreover, in addition to old-age pensions, other types of pensions, particularly disability pensions, could also be financed, which is not always guaranteed in the case of private or occupational pensions.

## Riester pensions: intransparent, low-yields and used very little

451. In order to strengthen supplementary funded pensions, the so-called 'Riester' pension was adopted in 2001 with the Retirement Assets Act and launched in 2002. After a slow start, the number of **Riester contracts** rose to around 16.6 million in 2017, but has since **declined** again; many of the contracts are currently no longer being actively used for saving (Werding et al., 2023). The main points of criticism of the system's current design are the **lack of transparency and low returns**, not least due to high costs, as well as the gap that still exists in the coverage of supplementary retirement provisions.

About a third of all employees subject to social insurance contributions have neither a Riester contract nor any occupational pension scheme. Taking into account additional forms of provision such as private pension insurance without subsidies or owner-occupied housing, **17 % of employees subject to social insurance contributions have no provisions for old age apart from the GRV** (Leinert et al., 2020). Many of the people without additional retirement provisions come from cohorts close to retirement age, or live in a household with minors, are low-income earners, do not have a vocational qualification, work part-time or do not have German citizenship. These people have a high risk of having inadequate income in old age. Also by international comparison, occupational pensions and investment income in Germany only account for a small share of income in old age. Despite high subsidy rates, the introduction of the Riester pension has not succeeded in strengthening private retirement provision among households with low financial literacy (Bucher-Koenen, 2011). ⭝ CHART 133

452. **Estimates of the average returns on existing Riester contracts vary widely**. The Association of Insured Persons ('Bund der Versicherten') expects negative yields due to high marketing costs and assumptions about life expectancy that are unfavourable for the insured (BdV, 2019). The Institute for Pension and Financial Planning (IVFP) estimates average nominal net yields to be 3 % (IVFP, 2022). In addition to high marketing and administrative costs, the **legally required guarantee plays a significant role** in the low returns of Riester pensions. This guarantee requires that at a minimum individual contributions and public subsidies need to be available at the time of retirement.

Simulations by Bucher-Koenen et al. (2019) show that an **investment strategy based on a broadly diversified stock portfolio with a life cycle component** achieves a median return of 7.3 % per year; this means that **pension wealth at retirement is about five times as high as the amounts paid in**

**Income in old age in international comparison[1]**
Private occupational transfers and capital income account for a small share of income in old age in Germany
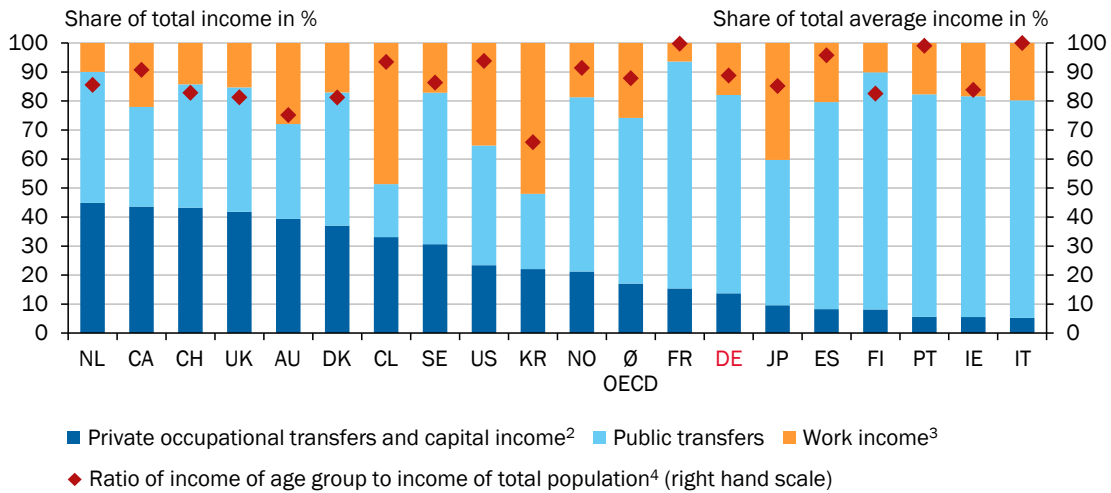


1 – Persons aged over 65 years. NL-Netherlands, CA-Canada, CH-Switzerland, UK-United Kingdom, AU-Austria, DK-Denmark, CL-Chile, SE-Sweden, US-USA, KR-Republic of Korea, NO-Norway, FR-France, DE-Germany, JP-Japan, ES-Spain, FI-Finland, PT-Portugal, IE-Ireland, IT-Italy. Most data are from 2018, except for the following countries: the Netherlands from 2016; Chile, Denmark, Switzerland and the US from 2017; and France, Canada, Sweden and the UK from 2019.  2 – Operating transfers include pensions, severance pay, death benefits and other. Capital income includes private personal pensions and income from the returns on non-pension savings.  3 – Income from work includes both earnings (employment income) and income from self-employment.  4 – Average income by age group in relation to the average income of the total population.
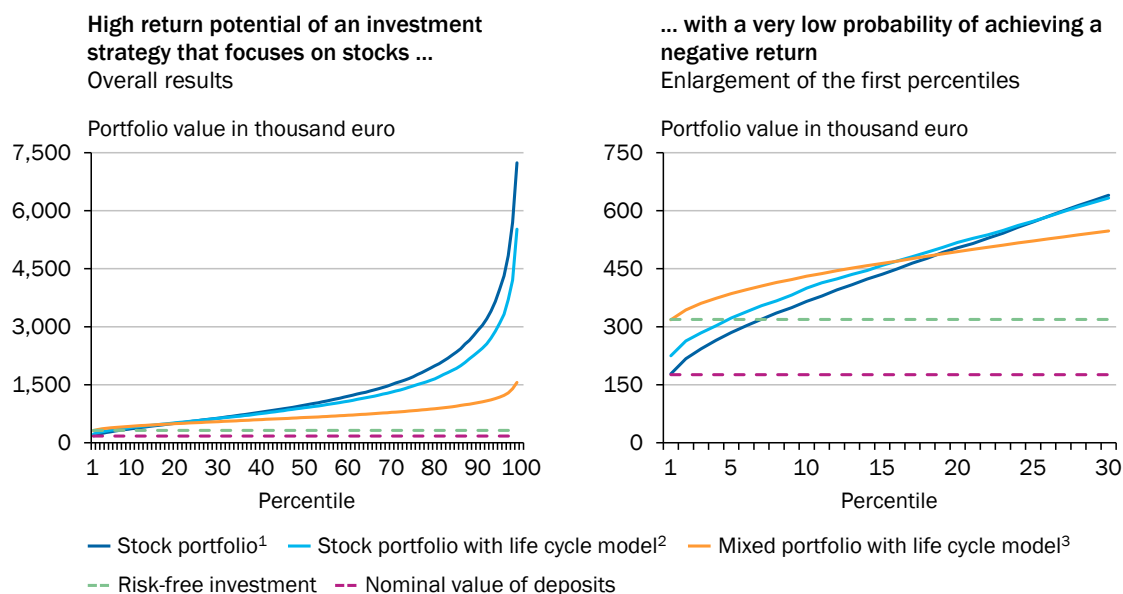
Source: OECD (2021)
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**over a period of 45 years**. ↘ CHART 134 LEFT In the life-cycle model, the portfolio is shifted from stocks to less risky bonds as a person approaches retirement age. As a result, simulated returns on an investment in the stock market have a distribution that offers **a positive return more than 99 times out of 100**. ↘ CHART 134 RIGHT Even in the very unlikely event of a negative return, this does not mean a total loss. The authors also simulate the case that a severe financial crisis occurs, as in 2007, in the unfavourable moment of the last year of the accumulation period. In this case, the stock portfolio with a life cycle incurs losses of around 16 %, which reduces annual returns from 7.3 % to 6.6 % per year. In order to make up for losses from times of crisis in the following years, a dynamic annuity should be offered. With a dynamic annuity, the portfolio is not sold all at once at retirement but only pro rata, e.g. for the coming year. The risk of a loss in times of crisis could also be reduced by a higher share of bonds, depending on the risk attitude of investors. The concern that funded pensions would come under pressure in the course of demographic ageing because the value of pension assets would diminish when they are used simultaneously (asset meltdown) is not supported by the results of various empirical studies, although it cannot be discarded entirely (Börsch-Supan et al., 2003; Davis and Li, 2003; Schich, 2009; Favero et al., 2011; Marekwica et al., 2011).

453.    Because of the unlikelihood of negative yields and the high costs involved, **the obligation to provide a guarantee that reduces expected yields should**

**Distribution of simulated portfolio values at the end of the 45-year accumulation period for different investment strategies**



**High return potential of an investment strategy that focuses on stocks …**
Overall results

**… with a very low probability of achieving a negative return**
Enlargement of the first percentiles

— Stock portfolio[1]  — Stock portfolio with life cycle model[2]  — Mixed portfolio with life cycle model[3]
-- Risk-free investment  -- Nominal value of deposits

1 – 100 % stock portfolio.  2 – 100 % stock portfolio. From the age of 52, an annual shift of 3 percentage points from stocks to bonds. At retirement age 67, 55 % stocks and 45 % bonds are still in the portfolio.  3 – Mixed portfolio of 50 % stocks and 50 % bonds. Reallocation from the age of 52 at a rate of 1.5 percentage points per year. At the start of retirement at age 67, 27.5 % stocks are still in the portfolio.

Source: Bucher-Koenen et al. (2019)
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**be abolished in the future**. Then savers could choose among products that promise higher returns. A broadly diversified investment strategy that relies heavily on stocks and invests according to a life-cycle model seems particularly suitable for this. Such a strategy only involves slightly lower expected returns than a pure stock-market portfolio, but reduces the risk of the saved assets losing a lot of value due to a financial crisis shortly before the start of the payout phase (Bucher-Koenen et al., 2019).

## Option for action: a diversified, high-yield and more widely used retirement provision based on shares

454. Riester pensions should be replaced by a **new form of supplementary funded private pension**, designed in a way that overcomes the problems of the Riester pension (Werding et al., 2023). Following international models, a **publicly managed, strongly stock-based fund with broad diversification** could be a central element. All the members of the target group should be automatically included (**auto-enrolment**), but also be given the option to **opt out**. The fund could act as a default provider **with private competition** and could operate at low costs per insured person due to its expected size. In this function, it could also be opened up for occupational pension schemes, for example if smaller employers cannot easily organise such schemes in another way. Existing Riester contracts could be either given a right of continuance in their current form or transferred to the new system on a voluntary basis without loss of subsidies. In addition,

protection for surviving dependants could be offered along the lines of the Swedish model. Here, the level of an insured person's pension is reduced depending on his or her age and that of the partner, and a lifelong pension is bequeathed to the survivor (Börsch-Supan et al., 2017).

455. As in the case of Riester contracts, injections into the fund should receive **subsidies** that reduce contributions required from the savers. In 2019, the costs of the subsidies for Riester contracts totalled €4 billion (BMF, 2022b). If all employed people and recipients of Unemployment Benefit I were to participate, the costs of the subsidies could rise by around €10 billion per year. This corresponds roughly to the costs that would be incurred already today if all subsidies for Riester pensions were claimed. The costs of the subsidies increase as a result of the expected higher participation. The amounts of subsidies may remain unchanged, but could be reviewed. It should be possible for everyone to pay additional contributions into the fund. A subsidy encourages high participation and increases returns on contributions for people with low incomes. A publicly managed fund makes it easier for households to participate in the stock market and enables them to accumulate assets for retirement (Lusardi and Mitchell, 2007). The payout can take the form of an annuity or a combination of an annuity and a lump-sum payment, along the lines of the current Riester scheme.

456. There is a broad range of literature on the role played by capital yields for the distribution of wealth, which is characterised by greater inequality than the income distribution (Benhabib and Bisin, 2018). **Average yields achieved by wealthy households are often higher** than those of poorer households. Empirical studies show this correlation in several countries, such as the United States (Xavier, 2021), Sweden (Bach et al., 2020) or Norway (Fagereng et al., 2020). In Germany, the Bundesbank estimates real returns on assets along the distribution of net wealth. The average real return on the financial portfolios of households below the median was around 0 % from 2009 to 2022, compared to 1.5 % for the top percentile (Deutsche Bundesbank, 2022b). The difference can be explained by the portfolio structure of different households. Households in the bottom half of the wealth distribution invested mainly in low-risk assets. Households in the top 10 % of the wealth distribution, by contrast, invested in capital-market instruments (Deutsche Bundesbank, 2022b).

Even in the case of investments in **equities**, a **lack of diversification** leads to **poorer average returns** among low-wealth households (Campbell et al., 2019). Easy access to a broadly diversified fund with low costs would particularly benefit poorer households.

457. In order to show the effects of such a reform on the **combined benefit level of GRV pensions and funded supplementary pension**, **simulations** are carried out based on the baseline scenario for the development of pension finances (Werding et al., 2023). A savings rate of 4 % of gross wages subject to social insurance contributions is assumed here, as in the case of the Riester pension.

It is important to note that the reform described is not meant to significantly increase the high aggregate savings rate in Germany. ⬊ ITEM 207 **People** most likely to **make additional savings are those who either do not yet have a**

**Riester contract** or have not made provision for their old age in some other, preferably equivalent, way. They make up an estimated 17 % of all employees subject to social insurance contributions (infas, 2020). For these people, 4 % of their gross income is the total burden that includes both the additional pension contributions and the subsidy or tax benefits associated with supplementary funded pensions. Thus, every euro of the subsidy received reduces the required contribution. Furthermore, up to now German households have held a large proportion of their savings in cash and bank deposits ↘ ITEM 234 earning low or zero returns. For example, after adjustment for purchasing power, a savings deposit of €10,000 invested in January 2003 for up to one year was worth only €9,960 at the end of 2022, due to negative real interest rates as calculated by the Deutsche Bundesbank. If a shift from bank deposits to higher-yielding assets is successful, the aggregate saving rate will not increase. However, growth can be stimulated by stronger market-based financing. ↘ ITEM 203

458. **Real returns (after costs) of 5 % per year** are assumed for the simulation. At the time of retirement, an actuarially fair annuitisation of the saved assets is assumed to take place, for simplicity with annuities that remain nominally constant. In addition, it is assumed that (at least) all **employees subject to social insurance contributions will participate in the reformed supplementary funded pension scheme from 2023 onwards** (or will use an equivalent form of supplementary provision), and that all existing **Riester savers will switch to the reformed scheme**. Further details on the simulations are described in Werding et al. (2023). The simulation is compared with a four-percentage-point increase in contributions to the GRV to finance a higher pay-as-you-go pension. A comparison between possible returns on the capital market and the implicit yield of the GRV ↘ BACKGROUND INFO 21 is difficult, as it is highly dependent on the underlying assumptions (GCEE Annual Report 2016 items 667 ff.). In a continuously ageing society, however, returns on the capital market are likely to be higher than the implicit returns of the GRV (Werding et al., 2023). The main difference lies in the fact that in funded schemes, those who save receive a higher yield (with compound interest effects) on their additional contributions and will reach a higher pension level in the future. ↘ CHART 135

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↘ BACKGROUND INFO 21

**Focus: implicit rate of return of the GRV**

The **implicit rate of return of the GRV** is the **interest rate at which the difference between the present values of payments into the** pension system (individual contributions) **and the payments out** of the pension system (pension payments) **equals zero** (GCEE Annual Report 2003 box 9). ↘ BACKGROUND INFO 17 The concept of the implicit rate of return is used mainly for intergenerational distribution analyses that focus on the standard pensioner. Individual returns often deviate significantly from it (Buslei et al., 2020). Empirically, it can be shown that the implicit returns from the GRV are on average higher for women than for men, as women have a higher further life expectancy and thus draw a pension for longer (GCEE Annual Report 2016 items 667 ff.). The returns from the GRV are also lower the younger the birth cohort under consideration (Haan et al., 2019). ↘ ITEM 367 When comparing a yield that could be achieved on the capital market with the implicit return from a pay-as-you-go scheme, it must be taken into account that the GRV pays, for example, disability pensions or

survivor pensions in addition to old-age pensions. ↘ ITEM 367 A funded pension typically only offers old-age pensions. Only the share of contributions used for retirement pensions must therefore be considered for a comparison with funded schemes. Previous calculations by the GCEE have shown that the **implicit returns of the GRV vary between 3 % and 4 %** per year, depending on the person's year of birth and gender (GCEE Annual Report 2016 items 667 ff.).

459. In order to provide information regarding the effects of supplementary funded provisions that are comparable with the benefit level of the GRV, average supplementary pensions that result for all pensioners in each year are determined. in this way, the effect of the reform only becomes apparent very slowly, as it increases for each new cohort entering retirement, but is lower for pensioners who retired earlier (red dotted line). ↘ CHART 135 LEFT Nevertheless, despite the simulated decline in the benefit level of GRV pensions in the baseline scenario (orange line), combined benefit levels of over 48 % are achieved throughout. **From 2040 onwards**, there is a **significant increase in the combined benefit level to over 60 %**. By comparison, the simulation shows that if **contribution rates in the GRV are raised** by four percentage points to finance a higher pay-as-you-go pension, **the benefit level will rise in the short term** to over 56 % in 2026

↘ CHART 135

**Simulations of a reform of supplementary funded pensions provision**



**Benefit level with funded pensions increases in the long term – level of higher pay-as-you-go pensions falls**

Benefit level in %[1]    Contribution rate in %

Benefit level[1]:

— Baseline scenario    -- Higher pay-as-you-go pension[2]

···· Supplementary funded pensions[3]

Contribution rate (right hand scale):

— Baseline scenario    -- plus 4 percentage points
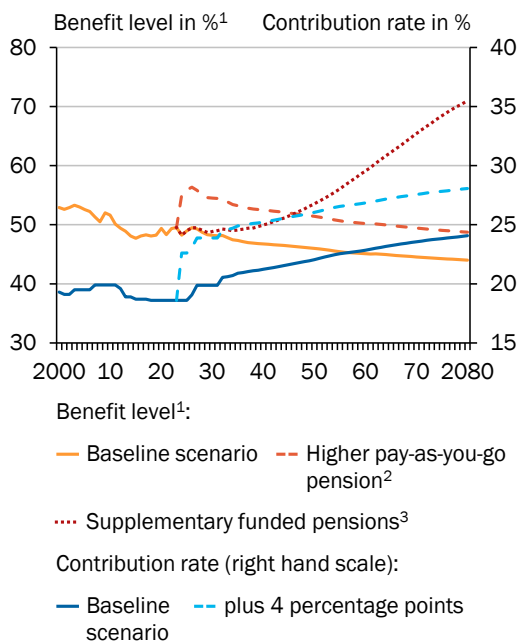
**Benefit level of pensions at award by age cohorts shows intergenerational redistribution**

Benefit level in %[1]

■ GRV pension: baseline scenario    ■ Supplementary funded pensions[3]

■ GRV pension: increased contribution[2]
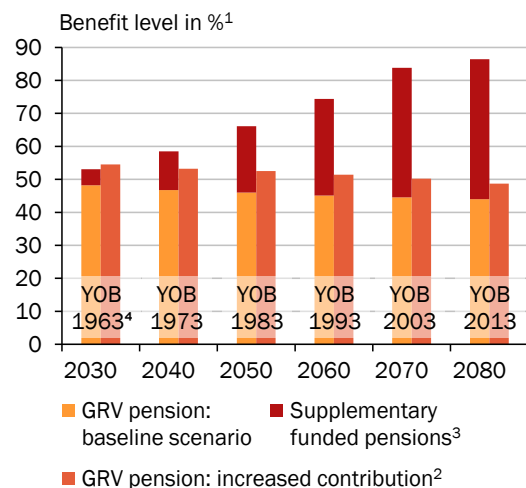
1 – Net before tax; in the case of supplementary provision: average for all pensioners.  2 – Increase in contribution rates by 4 percentage points compared to the baseline scenario and a corresponding increase in pay-as-you-go pensions. 3 – Scenario with a real return of 5 % per year.  4 – YOB = year of birth. For the year 1963, the months March to December are considered.

Sources: Deutsche Rentenversicherung, SIM.21, own calculations
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(red dotted line). **In the long term**, however, the benefit level falls to **below 50 %** from 2065 onwards. ↘ CHART 135 LEFT

460. A reform that raises **contributions to finance a higher pay-as-you-go pension** would imply a **major redistribution across age cohorts**. Pensions would rise from 48.2 % in the baseline scenario to 54.5 % for those retiring in 2030, and would be higher than the pension level with a supplementary funded pension. ↘ CHART 135 RIGHT But this ratio reverses significantly in the long term. Cohorts retiring in 2050 would reach a benefit level that is more than 15 percentage points higher with supplementary funded pension. Expanding supplementary funded pensions means that higher financial burdens incurred today lead to a higher benefit level for those who bear these burdens. With an increase in pay-as-you-go contributions, those who pay the higher contributions benefit much less.

# IV. CONCLUSION: BUNDLING MEASURES ENSURES FEASIBILITY

461. Fixing the benefit level of statutory pensions and rejecting further increases in the statutory retirement age, as announced by the federal government at the beginning of this legislative period (SPD, Bündnis 90/Die Grünen and FDP, 2021), means unilaterally shifting all the **burdens involved in old-age provision generated by the current surge in ageing** onto younger and future people in employment. The risks this poses for the medium- and long-term economic development in Germany can only be contained by reforms of the GRV and the entire old-age security system, in which the **conflicting goals that arise are thoroughly weighed up**.

The reform options discussed here have very different impacts on the financial sustainability of the GRV, the adequacy of pension benefits, and the point in time at which they take effect. ↘ TABLE 24 A reform of the GRV should address the causes of demographic ageing as precisely as possible. ↘ ITEM 361 A solution should be found here that focuses neither one-sidedly on the interests of older people nor one-sidedly on those of younger people (Board of Academic Advisors to the BMWi, 2021). At the same time, it must be ensured that the burdens of the reforms are distributed appropriately within society and that hardships that arise in the reform phase are cushioned. Since none of the reform options discussed can achieve this alone, a **bundling of measures is indispensable**. This would probably also increase feasibility, as individual reform measures could then be less severe. An early announcement that ensures sufficient reliability is important to ensure acceptance of the reform.

462. An increase in the number of people in the labour force through **increased immigration** and an **expansion of employment among women and older people** leads to more contributors and higher contributions in the GRV. In quantitative terms, increasing the employment of older people would have a

particularly strong and clearly positive impact on the financing of the GRV in the long term. Even so, only an increase in the statutory retirement age ensures that there is really a shift in the actual retirement age. Reforms aimed at increasing qualified immigration or the employment of women, e.g. by reforming income-tax splitting among married couples, ⬎ ITEM 337 contribute to alleviating the demographic strain on pension finances. A reform of widows' and widowers' pensions that makes pension splitting the standard ⬎ ITEM 446 can also increase women's incentives to work in the long term and contribute to relieving the financial burden on the GRV. ⬎ BOX 23 A higher level of employment for women has the positive side effect that they are better provided for at old age, which has a favourable effect on their risk of old-age poverty and unburdens the rest of the social insurance system. However, since benefit entitlements will also rise in the long term if the number of people in the labour force rises, attempts to increase employment subject to social insurance contributions only have a **temporary unburdening effect** on pension finances. **Therefore, they are no substitute for effective long-term reforms** within the GRV system.

463. **The core element of a reform within the GRV should be** to link the retirement age to further life expectancy and to establish a new form of supplementary funded pensions. The **dynamisation of the retirement age has favourable effects on the benefit level, the contribution rate and pension expenditure**. ⬎ ITEMS 403 FF. It is the only measure that can address the foreseeable further increase in life expectancy in the long term and tackles this issue directly. The expected continuous rise in the retirement age will expand the favourable effects of this reform option in the future. Up until 2080, the benefit level will rise and the contribution rate will fall compared to the baseline results. The federal subsidy will increase much less relative to GDP. Linking the retirement age to further life expectancy also has a favourable effect on the risk of poverty in old age because of an increasing number of contribution years (Buslei et al., 2023a). When the retirement age is raised, deductions for early retirement increase. This can be countered by a **possibility of early retirement without deductions**. However, such a regulation is only sufficiently targeted if it is **restricted to long-term low-income earners** in the future. ⬎ ITEMS 417 FF.

Despite the favourable effects of raising the retirement age on the risk of poverty in old age, the benefit level will become lower until 2080, while the contribution rate to the GRV will rise. The reason for this is that **rising life expectancy is not the only reason for demographic ageing**. ⬎ ITEM 361 In order to contain the effects of low birth rates and the retirement of the baby boomers on pension finances, **further adjustments in the pension system are necessary**.

464. A new form of **supplementary private, funded pensions** is a sensible complement to such a reform option because it can **increasingly decouple retirement provisions from demographic development, which is expected to remain unfavourable**. ⬎ ITEMS 454 FF. Funded pension plans ensure a close link between additional burdens today and expected future benefits. Moreover, it is evident that without supplementary funded pensions outside the GRV, the politically targeted pension level of 48 % can only be maintained with great difficulty. If fewer people are left without a supplementary pension, the risk of poverty in old

age is reduced. Although funded pensions require higher contributions of a similar size as the savings rate stipulated for this purpose before, it simultaneously **offers the potential to** significantly **increase the combined benefit level in the** long term, ⬊ ITEM 460 which would reduce the risk of poverty. A decreasing benefit level in the GRV can be compensated by additional benefits from a funded system.

Following international examples, the central element could be a **publicly managed, strongly equity-based fund with broad diversification**. ⬊ ITEMS 454 FF. All the members of the target group should be automatically included (**auto-enrolment**), but also be given the possibility to **opt out**. The continuation of a **subsidies** can alleviate the higher burden caused by the additional contributions especially for people with low incomes. For people with higher incomes, supplementary private retirement provisions often already exists, which can either be continued as an alternative to the proposed funding or would be replaced by it. Therefore, little or no additional burden would be expected here.
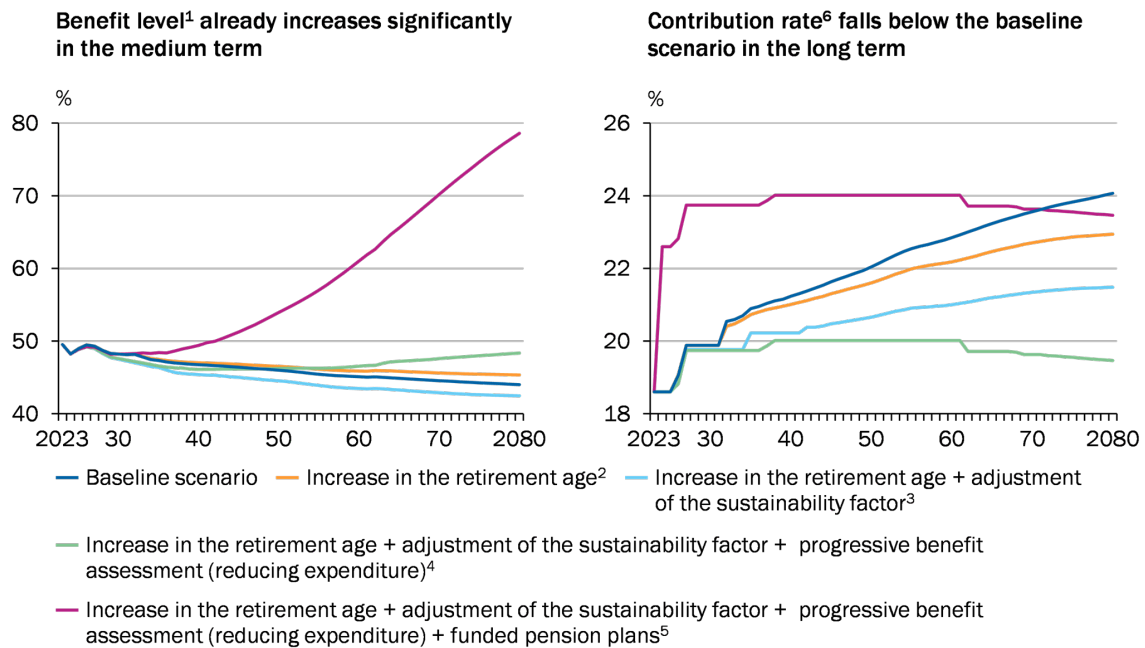
465. The **full effect of funded pensions and the rise in the retirement age will only be felt in the long term**. The question thus remains open as to how the financial burdens of lower birth rates and the retirement of baby boomers can be borne until then. This is a question of inter- and intragenerational distribution. In order to address the acute financing problems of the GRV over the next 15 years, further measures that are effective in the short term should be considered.

466. **In the short term, unburdening effects** on GRV expenditure can be achieved **by adjusting the sustainability factor or introducing price indexation of pensions after award**. ⬊ ITEMS 421 FF. AND 425 FF. Both measures intervene in the mechanism for benefit upratings and reduce the increase in pension payments. However, the measures have different distribution effects. All pensioners are equally affected by an adjustment of the sustainability factor. However, the declining benefit level is likely to have a particularly unfavourable effect on groups of people who are just above the at-risk-of-poverty rate. ⬊ ITEM 424 In the case of inflation indexation, the benefit level declines with the duration of pension receipt. The benefit level of pensions at award, on the other hand, can be higher.

The time dimension also differs. **Price indexation will significantly reduce pensions after award already in 2035**. A reform of the **sustainability factor, on the other hand, only** unfolds its full effect **as demographic ageing progresses**. This timing also affects the development of contribution rates. However, price indexation is accompanied by considerably more uncertainty for contributors than an adjustment of the sustainability factor. The sustainability factor reacts to changes in demographics, which are generally easy to forecast. With price indexation, by contrast, short-term price changes that are hard to predict can have a major impact on pension expenditure and thus on contribution rates. As a safety mechanism when real wages are falling, a safeguard clause and a compensation factor could address the risk of rising contribution rates in the short term, while ensuring that the purchasing power of pensions after award is maintained in the long term. ⬊ ITEM 374

467. An assessment of benefit entitlements graduated according to annual income can help to **reduce an unintended regressive redistribution in the GRV** and has a favourable effect on other reform options that might be difficult to implement in isolation. In this way, measures such as price indexation or an adjustment of the sustainability factor – which relieve the GRV financially in the short term but simultaneously lead to an increase in the risk of poverty in old age – can be made more socially acceptable. Social hardship caused by raising the statutory retirement age, which reinforces the unfavourable correlation between individual income and the return on pension contributions paid arising from heterogeneous life expectancies, is also addressed. ↘ ITEM 409 A **progressive benefit assessment that curbs expenditure has favourable effects on the contribution rate already in the short term** and only burdens people with above-average incomes. ↘ ITEMS 436 FF. At the same time, the benefit level of a standard pension can be stabilised through a reduction in aggregate pension expenditure. In particular, people with low and medium incomes can benefit from this. Consequently, the **risk of poverty in old age can be reduced**. The favourable effect of this reform option on the contribution rate and pension level is likely to continue in the future.

468. If a **higher statutory retirement age** is combined with an **adjustment of the sustainability factor**, this would initially lead to a larger decline in the benefit level than in the case without an adjustment of the sustainability factor. ↘ CHART 136 However, simulations show that the **increase in the contribution rate** would be **mitigated by the combination** of the two measures. **Adding a progressive assessment of benefit entitlements that reduces pension expenditure** would **stabilise the pension level of a standard pension from 2035 onwards**, while the benefit level for pensions based on above-average incomes would fall. Similar effects would also result if price indexation were implemented instead of an increase in the sustainability factor (Werding, 2023). From 2035 onwards, a progressive benefit assessment that reduces pension expenditure would again have a favourable effect on the contribution rate. If, in addition to these reform options, funded pension plans are implemented, the benefit level of the combined reform would rise above the value of the baseline scenario as early as 2031. Initially, contributions for funded pensions would substantially increase expenditure on retirement provision. In the long term, however, they would be below the contribution rate in the baseline scenario from 2072 onwards – even before taking subsidies for supplementary savings into account.

469. **Expanding the group of insured people** to include **new civil servants and new self-employed people** increases the number of contributors to the GRV. In the short to medium term, such reforms have unburdening effects within the GRV. However, as soon as the new contributors reach the statutory retirement age and draw pensions, the unburdening effect declines again. The GRV's financing problem is thus merely postponed into the future. In the short to medium term, the financing problem is also shifted to the employers of civil servants, who will have to finance contributions for new civil servants in addition to pension entitlements accrued under the previous law. If the immediate disbursement of additional contributions in the GRV is prevented by the establishment of a separate pension fund, such a reform can be implemented in a cost-neutral way. ↘ ITEM 397

**Effects of a combination of reform options in the GRV**

Benefit level[1] already increases significantly
in the medium term

Contribution rate[6] falls below the baseline
scenario in the long term



— Baseline scenario  — Increase in the retirement age[2]  — Increase in the retirement age + adjustment
of the sustainability factor[3]

— Increase in the retirement age + adjustment of the sustainability factor +  progressive benefit
assessment (reducing expenditure)[4]

— Increase in the retirement age + adjustment of the sustainability factor +  progressive benefit
assessment (reducing expenditure) + funded pension plans[5]

1 – Net before tax, ratio of the standard pension (45 earning points) to the average income of contributors. In the case
of funded pension plans, the pension level refers to the weighted average value for all pensioners.  2 – 2:1 rule.
3 – Increase in the factor α in the sustainability factor to 0.5.  4 – Progressive benefit assessment graduated according
to annual income, reducing expenditure.  5 – Assuming a savings rate of 4 % and a real net return of 5 % p. a.  6 – Contribution rate to the statutory pension scheme as a percentage of the gross wage. Half of this is paid by employers, the
other half by employees. In the case of funded pension plans, a savings rate of 4 % of gross wage subject to contribution
is assumed.

Source: SIM.21
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This would be positive in terms of an accurate periodisation of costs and higher
transparency. In addition, the integration of civil servants ensures that reforms of
the GRV are also implemented in civil servants' pensions, as is intended. This increases the societal acceptance of pension reforms. Reducing the burden involved
in civil servants' pensions could be realised via the level of additional occupational
retirement provisions as well as a more restrictive policy for the appointment of
civil servants in Germany. ↘ ITEM 395

↘ TABLE 24

## Simulations of the effects of the reform scenarios on the GRV and the overall economy

| Reform | Year | Benefit level | Contribution rate | Federal sub-sidies/GDP | Pension ex-penditure/GDP | Poverty risk[1] |
|---|---|---|---|---|---|---|
| | | Changes compared to the baseline scenario in percentage points | | | | |
| Higher net immigration[2] | 2035 | 0.3 | – 0.2 | – 0.1 | – 0.1 | |
| | 2060 | 0.7 | – 0.3 | – 0.2 | – 0.3 | + |
| | 2080 | 0.4 | 0.1 | – 0.3 | – 0.2 | |
| Higher labour force participation of women[3] | 2035 | 0.3 | – 0.3 | – 0.1 | – 0.2 | |
| | 2060 | 0.3 | – 0.1 | – 0.1 | – 0.2 | + |
| | 2080 | 0.2 | – 0.1 | – 0.1 | – 0.2 | |
| Higher labour force participation of elderly[4] | 2035 | 0.6 | – 0.3 | 0.0 | – 0.2 | |
| | 2060 | 0.7 | – 0.6 | – 0.1 | – 0.3 | + |
| | 2080 | 1.0 | – 0.8 | – 0.2 | – 0.4 | |
| Integration of civil servants[5] | 2035 | 0.1 | – 0.2 | 0.0 | 0.1 | |
| | 2060 | 0.6 | – 0.4 | 0.0 | 0.4 | + |
| | 2080 | 0.2 | 0.1 | 0.1 | 0.8 | |
| Integration of self-employed[6] | 2035 | 0.1 | – 0.2 | 0.0 | 0.0 | |
| | 2060 | 0.5 | – 0.3 | 0.0 | 0.2 | + |
| | 2080 | 0.3 | – 0.1 | 0.0 | 0.3 | |
| Increase in the retirement age[7] | 2035 | 0.2 | – 0.2 | 0.0 | – 0.1 | |
| | 2060 | 0.8 | – 0.7 | – 0.1 | – 0.4 | + |
| | 2080 | 1.3 | – 1.1 | – 0.2 | – 0.6 | |
| Adjustment of sustainability factor[8] | 2035 | – 1.3 | – 0.6 | – 0.1 | – 0.2 | |
| | 2060 | – 2.9 | – 1.5 | – 0.1 | – 0.6 | – |
| | 2080 | – 3.5 | – 1.9 | – 0.2 | – 0.8 | |
| Price indexation[9] | 2035 | – 3.4 | – 1.6 | – 0.1 | – 0.5 | |
| | 2060 | – 3.5 | – 1.4 | – 0.1 | – 0.6 | – |
| | 2080 | – 2.8 | – 1.2 | – 0.1 | – 0.5 | |
| Benefit level 48 %[10] | 2035 | 0.7 | 0.3 | 0.0 | 0.1 | |
| | 2060 | 2.9 | 1.3 | 0.1 | 0.6 | + |
| | 2080 | 4.0 | 2.0 | 0.2 | 0.9 | |
| Progressive benefit assessment, reducing expenditure[11] | 2035 | 0.1 | – 0.4 | 0.0 | – 0.1 | |
| | 2060 | 2.0 | – 1.8 | – 0.2 | – 0.8 | + |
| | 2080 | 3.8 | – 3.3 | – 0.3 | – 1.4 | |
| Supplementary funded pensions[12] | 2035 | 1.8 | 4.0 | not affected | not affected | |
| | 2060 | 14.0 | 4.0 | | | + |
| | 2080 | 26.9 | 4.0 | | | |

1 – Qualitative assessment of effects on the at-risk-of-poverty rate for older people based on the influence of the reforms on the average benefit level and the simulations of Buslei et al. (2023a). Plus implies a decrease in the at-risk-of-poverty rate for older people relative to the baseline scenario, minus an increase in the at-risk-of-poverty rate for older people relative to the baseline scenario. 2 – Long-term stabilisation of net migration at 350,000 persons per year. 3 – Increase in the female labour force participation rate to 97.5 % by 2030 and to 99 % by 2060 compared to men of the same age. 4 – Increase of the actual retirement age to 67 years by 2060. 5 – Integration of all new civil servants into the GRV from 2024 onwards. 6 – Integration of all new self-employed persons without compulsory pension provision into the GRV from 2024 onwards, assuming that 50 % make use of the right to choose an alternative old-age provision. 7 – Increase of the statutory retirement age according to the 2:1 rule. 8 – Increase of the parameter α in the sustainability factor to 0.5. 9 – Linking pensions after award to inflation. Benefit level refers to the weighted average of all pensioners. 10 – Stabili-sation of the benefit level at 48 %. 11 – Earnings points increase by a factor of 0.5 for above-average income. 12 – Assuming a savings rate of 4 % and a real net return of 5 %. Benefit level refers to the weighted average of all pensioners.

Sources: Federal Statistical Office, SIM.21, own calculations
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**Possible objections to the GCEE's analyses and conclusions**

The pension debate has been going on intensively for many years. Apart from convincing arguments, other arguments are repeatedly put forward that are wrong or miss the point, even if some of them have persisted for a long time. Some misguided objections of this kind are presented here in an overview, and answered with reference to the corresponding text passages in this chapter.

"*The GCEE bases its reflections on pension policy on long-term simulations that are highly uncertain.*"

Pension policy must be planned with foresight. Long-term projections based on transparent assumptions that are as plausible as possible are indispensable for this purpose, even if the future is uncertain. Projections on demographic development ↘ ITEMS 360 F. are quite reliable for the next 20 years, because the results in this period are mainly determined by the ageing of the current population. In the longer term, however, uncertainty increases, and future developments in employment and income seem very uncertain even over a few years. For this Annual Report, the GCEE has therefore considered numerous variants of corresponding projections (Werding, 2023). Without exception, all variants point to a considerable need for reform of the GRV.

"*The GCEE's long-term simulations have become increasingly favourable over the last 15 years. If this continues, the problem of demographic ageing can be solved without reforms.*"

Baseline scenarios for the development of demographics and the labour market have been adjusted in the period from the GCEE's 2011 Expert Report on 'Challenges of Demographic Change' up until this Annual Report mainly with respect to two changes in the actual data. First, annual net migration has increased considerably (from net emigration in 2008/09 to high net immigration in recent years). This changes the prospects for future migration and is fully taken into account in the latest projections, based on current assumptions of the Federal Statistical Office. Second, the unemployment rate has continued to fall steadily (from over 10 % of the labour force in 2005 to just over 3 % most recently). Mathematically, a further decline of comparable magnitude is not possible.

"*Stronger growth in labour productivity and GDP can reduce or even offset the demographically induced strain on the finances of the GRV without all the reforms.*"

This expectation is wrong. Stronger growth in labour productivity increases GDP and is usually accompanied by correspondingly stronger growth in wages. Under current law in Germany, statutory pensions are also uprated more strongly in this case. ↘ BACKGROUND INFO 18 Therefore, revenue from contributions and the federal funds that are needed to finance the higher pensions must also increase more strongly. ↘ BACKGROUND INFO 17 Measured in terms of such indicators as the contribution rate and the GRV benefit level, the financial strain on the GRV remains unchanged when productivity growth is higher.

"*Even if pension expenditure increases more than GDP in the future, the associated burden will remain sustainable for the overall economy.*"

It is misleading to use 'pension expenditure per GDP' as an indicator of the burden of demographic ageing. As long as the expenditure of the GRV is financed almost entirely on a pay-as-you-go basis, the system dependency ratio is the relevant indicator. ↘ ITEM 421 Because the German population is ageing, contribution rates of the GRV must be raised substantially to finance current pensions, even if pension expenditure develops favourably relative to GDP. This not only creates risks for the development of employment, but also pronounced intergenerational

redistribution effects at the expense of younger and future insured people. In the case of funded retirement provisions – as envisaged by the GCEE as a complement to a reformed GRV – insured people pay for their own retirement provision, not for that of the preceding generation. ↘ ITEM 454

*"When supplementary funded pensions are introduced, total contributions required rise faster than if the pay-as-you-go system is continued without reforms."*
Comparisons at certain points in time between the contribution rate to the GRV on the one hand and the sum of this contribution rate and the savings rate for supplementary funding on the other are not appropriate. In the pay-as-you-go system, all contributions are immediately disbursed, whereas in a funded pension system they are invested in order to finance future expenditure – boosted by the return on investment (with compound interest effects). When a system of supplementary funding is established, a faster increase in total contributions can therefore be accompanied by a higher retirement income in the future, a reduction in total contributions or a mixture of both. Intertemporal comparisons of contributions and benefits are therefore relevant. ↘ CHART 136

*"For insured people who are already drawing a pension or will soon be retiring, the GCEE's proposals mean a massive pension cut."*
Under the current law, the benefit level provided by the GRV will in all likelihood fall steadily over the next 50 years, and the contribution rates to the GRV will rise steadily. ↘ ITEMS 372 F. The GCEE's analysis makes it clear that there is no single measure that can halt this development. Instead, it is imperative to implement a combination of reform options as soon as possible. The proposed increase in the statutory retirement age of the GRV from 2031 is moderate and mitigates both the foreseeable decline in the benefit level and the foreseeable increase in the contribution rate. ↘ ITEMS 406 F. The other options considered by the GCEE have very different effects on insured people who are already drawing a pension or will soon be entering retirement. Strengthening the sustainability factor is in line with previous principles of pension calculation and earlier reforms, but it reduces both low and high pensions equally. ↘ ITEMS 421 FF. Price-indexed upratings of all pensions after award raise the benefit level for all pensioners when they retire. ↘ ITEMS 425 FF. Subsequently, the purchasing power of each pension is maintained throughout the duration of pension payments. However, it falls further and further behind the purchasing power of the wages of the actively insured, if the latter are increasing in real terms, the longer the duration of the individual pension payments lasts. A progressive benefit assessment – depending on the design and combinations with other reform options – raises the benefit level of pensions based on below-average and average wages, and reduces the benefit level of pensions based on higher wages. ↘ ITEM 434 Overall, the different intragenerational distribution effects need to be carefully considered – also with regard to their possible combined effects – and weighed up.

*"Redistribution within the GRV violates the benefit principle and is therefore legally impossible."*
The benefit principle has a long tradition in the post-war GRV. By contrast, it has traditionally played a subordinate role in other branches of social insurance, such as statutory health insurance or social long-term care insurance. The proposals for a progressive benefit assessment are far away from the extent of income-related redistribution involved in these other branches. Specific regulations that lead to deviations from the benefit principle in the GRV certainly require a legal review. However, they are not excluded in principle.

*"If rising contribution rates seem to be a problem, the GRV can also be financed more through taxes in the future. At least new redistributive elements within the GRV should be tax-*

*financed."*

If the GRV contribution rate were to be frozen and missing funds for financing pensions were to be raised through taxes, tens of billions of euro would have to be raised for this purpose within a few years, and these amounts would quickly rise further. People who advocate this should make it clear that they are calling for tax increases; they should also state exactly which taxes should be increased for this purpose and to what extent. After all, it makes an enormous difference for the incentive and distributional effects, as well as for the macroeconomic and effects and the impact on foreign trade, whether direct or indirect taxes are to be increased or introduced and which changes are to be made to existing tax rates. Without such clarifications, the demand looks like a red herring. If pensioners are to participate in higher tax financing of the GRV, this amounts to a hidden pension cut. If they are not involved, the intergenerational distribution effects at the expense of the younger generations remain largely unchanged compared to higher contributions. Only the intragenerational distribution effects can change. However, the volume of funds to be raised also leaves little room for manoeuvre. Furthermore, the more the GRV becomes tax-financed rather than contribution-financed, the less it will be possible to maintain an assessment of individual benefit entitlements that is essentially based on contributions. Tax financing of redistributive elements is intended to strengthen the link between contributions and pension entitlements. However, it also has incentive and distribution effects on the financing side that are much more difficult to monitor than adjustments that affect the connection between contributions and pension entitlements within the GRV. In view of this, limited breaches of the benefit principle appear to be worth considering in the context of more complex reforms. This applies all the more, the more completely the GRV covers all employed people, for example after including civil servants and the self-employed. ↘ ITEMS 395 FF.

*"If civil servants were included in the GRV, the problems of financing pensions would be easier to solve. The same applies to the inclusion of the self-employed."*

The separate systems for retirement provisions for employees subject to social insurance contributions and civil servants are both financed on a pay-as-you-go basis, on the one hand from GRV contributions and on the other from taxes. From today's perspective, there are gaps in the financing of future pension entitlements in both systems. A merger of the systems can therefore only – temporarily – improve the financial situation of one system if the financing gap in the other system is made correspondingly larger. Thus, if the employers of civil servants had to start paying GRV contributions, they would lack corresponding sums to finance the pensions of former civil servants. The GCEE has designed a solution that avoids cross-subsidisation, but can still unify the systems. Reforms of the GRV would then also apply directly to civil servants. ↘ ITEMS 397 F. In addition to a statutory pension, civil servants should receive an occupational pension, the design of which should take into account the principles of civil service law, the competitiveness of the civil service in the labour market, but also the long-term financial viability of retirement provisions for people with civil-servant status. The inclusion of the self-employed may also temporarily provide the GRV with additional contribution funds that are lacking elsewhere, for example, for the self-employed themselves if they forego other forms of retirement provision. ↘ ITEM 400 However, such effects cannot be localised as clearly as in the case of civil servants. Inclusion in the GRV with an opt-out option in favour of other forms of provision appears to be a sensible compromise that can also facilitate pension financing both temporarily and to a limited extent.

*"Deviations from equally sharing the financing retirement provisions between employers and empoyees, e.g. in the context of an expansion of supplementary funded pensions, are unburdening companies and place a burden on workers."*

Expenditure on supplementary funded retirement provisions must be classified differently from contributions to the pay-as-you-go GRV, because they contribute directly to individual

security in old age. But even if total contributions to retirement provisions are taken together, their allocation to companies and workers is only significant in the short term. If this allocation is changed, one-off effects arise as long as gross wages remain unchanged. Subsequently, the two sides of the labour market negotiate adjustments to gross wages knowing about the new legal allocation of expenditure on retirement provision. In doing so, they take into account the effects on the companies' wage costs as well as on the employees' net wages. The results – and thus the effective allocation of expenses – depend on the relative bargaining power of the two market sides.

*"Capital markets and especially stock markets involve enormous risks. They do not form a suitable basis for retirement provisions."*

The risks of capital-market investments, especially in shares, are far lower than it appears when observing the ups and downs in the values of individual assets. This applies to portfolios with a broad sectoral and international diversification and if monthly or annual payments are made over a total investment period of up to 40 years or more – as is typical for retirement provisions. ↘ ITEM 452 Towards the end of the accumulation period, the consequences of such fluctuations can be limited by shifting funds from shares to less risky forms of investment. Even if there are broad-based losses in value at an unfavourable point in time, e.g. immediately before the planned retirement date, the investment usually still results in considerably higher returns than under a pay-as-you-go pension system. ↘ ITEM 452

*"Funded pension plans require international flows of capital and goods that are not feasible in the demographic ageing process. This is all the more true if all developed economies are ageing demographically at the same time."*

Demographic ageing processes in developed economies vary in intensity and in their timing. The same applies to similar processes that are currently taking place in many emerging markets. In most countries, retirement provisions are based to a large extent on pay-as-you-go systems. Supplementary pension fund plans, however, often play an important role as well. It is striking that in Germany, where the population will be ageing particularly strongly over the next 20 years, supplementary funding has been used comparatively little up to now. ↘ CHART 133 There are no indications that an increase in funded retirement provisions in Germany would overstretch the international capital markets – where pension assets from many different countries are already managed – or plunge them into problematic imbalances.

# A differing opinion

470. One member of the Council, Achim Truger, disagrees with the GCEE's majority position on some points in Chapter 5 'Population ageing surge and pension reforms'. The dissenting opinion concerns, **first**, the assessment of the **overall economic burden of demographic development**. **Second**, it concerns the **definition and application of** the terms **sustainability** and **adequacy** in the context of retirement-provision systems. **Third**, the Council majority's proposal on **supplementary funded pensions is rejected** because the very positive effects promised are doubted. **Fourth**, essential elements of the proposed **reforms of statutory pension insurance (GRV) are rejected** because they would result in a **significant increase in poverty in old age** or, for many insured people, the final **abandonment** of the goal of **securing the standard of living**.

## Macroeconomic burden not unacceptably high

471. Against the background of the demographic development, the Council majority emphasises the GRV's financing problems and makes the case for timely reforms. Their concept of burden is narrowly focused on the burden on contributors, especially in the pay-as-you-go system within the GRV. However, this concept is too narrow to determine the overall economic burden of a public retirement-provision system that generally finances pensions from current income, because in principle there are also other financing options, e.g. via the tax system. **The more relevant indicator for the macroeconomic burden is therefore pension expenditure as a percentage of GDP (pension-expenditure ratio)**. This is the only indicator that allows a plausible assessment of whether state pension expenditure seems affordable for the overall economy without unacceptable side effects.

It is undoubtedly the case that demographic development will create a macroeconomic burden in the sense of a rising pension-expenditure ratio if the standard of living of the significantly increasing number of older people is to be maintained at least to some extent after retirement. However, the chapter does **not address the issue of** whether – regardless of the exact institutional design – **an unsustainable burden really is to be feared from a macroeconomic perspective**.

472. If the projected development of pension expenditure in the GRV in relation to GDP **(pension-expenditure ratio)** in the baseline scenario is taken as the **yardstick for the macroeconomic burden**, the latter will rise from 9.6 % to 12.1 % of GDP within the next 57 years up to 2080. If, as stated in the coalition agreement, the target was a pension level of 48 % instead of the reduction to 44 % provided for in the current law, the pension-expenditure ratio would be 13 % of GDP according to the simulations. If one adds to this the cost of civil servants' pensions, which will rise from 1.7 % to 2.2 % of GDP by 2080, the overall pension-expenditure ratio will be 3.9 % of GDP higher than it is today by 2080. This is

↘ CHART 137

**Projections for public pension expenditures in OECD comparison[1]**

% of GDP
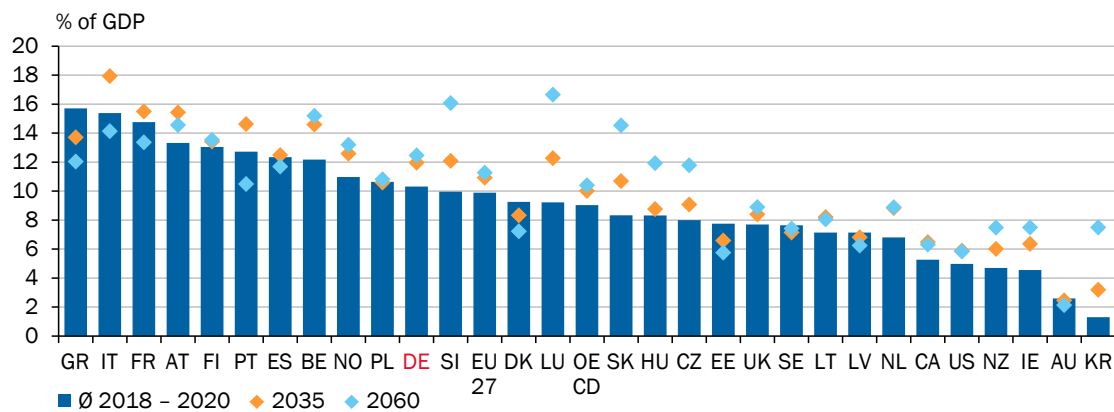


1 – GR-Greece, IT-Italy, FR-France, AT-Austria, FI-Finland, PT-Portugal, ES-Spain, BE-Belgium, NO-Norway, PL-Poland, DE-Germany, SI-Slovenia, EU27-European Union, DK-Denmark, LU-Luxembourg, OECD-average of the shown 29 member states, SK-Slovakia, HU-Hungary, CZ-Czechia, EE-Estonia, UK-United Kingdom, SE-Sweden, LT-Lithuania, LV-Latvia, NL-Netherlands, CA-Canada, US-USA, NZ-New Zealand, IE-Ireland, AU-Australia, KR-Republic of Korea.

Source: OECD

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undoubtedly a very significant increase. However, spread over the 57 years until 2080, the additional burden would amount to less than 0.07 % of GDP on average per year. As long as such an increase is not abrupt, but occurs in small steps, it is **unclear why it should not be bearable for the economy as a whole**. Furthermore, the burden could be reduced by up to 0.8 percentage points, i.e. one fifth, in the long term as a result of higher immigration, higher employment levels among the older population – even without an increase in the statutory retirement age – and higher female employment, if the results of the corresponding simulations in the chapter are added up in a simplified first approximation.

473.  **In an international comparison**, **public pension expenditure** in Germany averaged 10.3 % of GDP from 2018 to 2020, well above the OECD average of 9 % of GDP, but only just above the EU27 average of 9.9 % (OECD, 2021). ↘ CHART 137 This put **Germany** in 11th place and **in the middle range** of the 29 OECD countries with continuous data availability. According to the OECD's projections, although Germany's public pension expenditure will increase to 12.5 % of GDP by 2060 – which would move it slightly further away from the national averages and into 10th place – the projected expenditure ratio would be significantly higher in Italy, Austria, Belgium, Luxembourg, Slovakia and Slovenia, each of whose ratio would be higher than 14 % of GDP. **By international comparison, therefore, Germany does not face an exceptionally high burden.**

## Concepts of sustainability and appropriateness too narrow

474.  The Council majority measures **sustainability in the context of the GRV** as "the extent to which the net pension level provided for under current law can be maintained over the long term with the current contribution rate without the need for increasing compensation from the federal budget". ↘ ITEM 364 This **definition** is **problematic** in two respects: **First**, the call for **contribution-rate constancy at the current level is arbitrary** and **far too restrictive**, even

according to the source cited (Fall, 2019). There, contribution-rate increases are explicitly mentioned as a way of achieving financial sustainability, while referring to possible negative labour-market effects: "Increasing the contribution rate would improve financial sustainability, but could have a negative impact on labour markets" (Fall, 2019, p. 88). If the Council majority really wanted to keep the contribution rate constant at its current level, it would have to argue that contribution-rate increases beyond would lead to unsustainable negative effects on the labour market. Apparently, however, it is not striving for contribution-rate constancy at all, because in all the reform variants discussed the contribution rates to the GRV rise significantly above the current level and in the case of the combined scenario ⬎ CHART 136 (combination of raising the statutory retirement age + adjustment of the sustainability factor + progressive pension assessment) to 20 %, at least over long periods.

**Second, the restriction of the concept of sustainability to the GRV** and the federal subsidy **alone is too narrow** from a macroeconomic perspective because supplementary funded pensions also lead to heavy burdens on the people paying in – incidentally, while **abandoning parity financing** by employers and employees. From the perspective of a correspondingly expanded concept of contributions, the aim of contribution-rate constancy will certainly not be achieved by the proposals of the Council majority, because, including payments into supplementary funded pension provision, the contribution-rate level in all the variants examined without exception is now above 24 % and will be 23.5 % in 2080. It may be argued that payments into private retirement insurance, unlike those into the GRV, are not associated with intergenerational redistribution because those affected pay them for their own future. In this case, however, the increase in the federal subsidy – which is excluded in the Council majority's definition – would have to be judged differently from a contribution-rate increase, at least in terms of degree, since pensioners also contribute not insignificantly to tax revenue.

475. The Council majority measures **adequacy** by how "pensions contribute to securing the standard of living in old age [...]. In particular, pension reforms should not have a negative impact on the risk of poverty in old age." ⬎ ITEM 364 However, securing living standards is no longer mentioned at all in the entire chapter and completely takes a back seat to the goal of avoiding the risk of poverty.

## Potential problems of supplementary funded pension neglected

476. The **expansion of supplementary funded pensions** play a **key role in the pension-policy considerations of the Council majority**. With immediate effect, employees would automatically pay 4 % of their gross wages into a publicly managed equity-based fund with an opt-out option. This is the conceptual building block that is intended to supplement and far more than compensate for the declining pension level in the GRV in the medium and long term. In this way, part of the demographically induced burden is to be brought forward in time, thus relieving the younger generations in the future. At the end of the simulation period in 2080, the simulations show impressive combined pension levels of 70.9 %, ⬎ CHART 138 LINKS compared to only 44 % for the GRV in the baseline scenario.
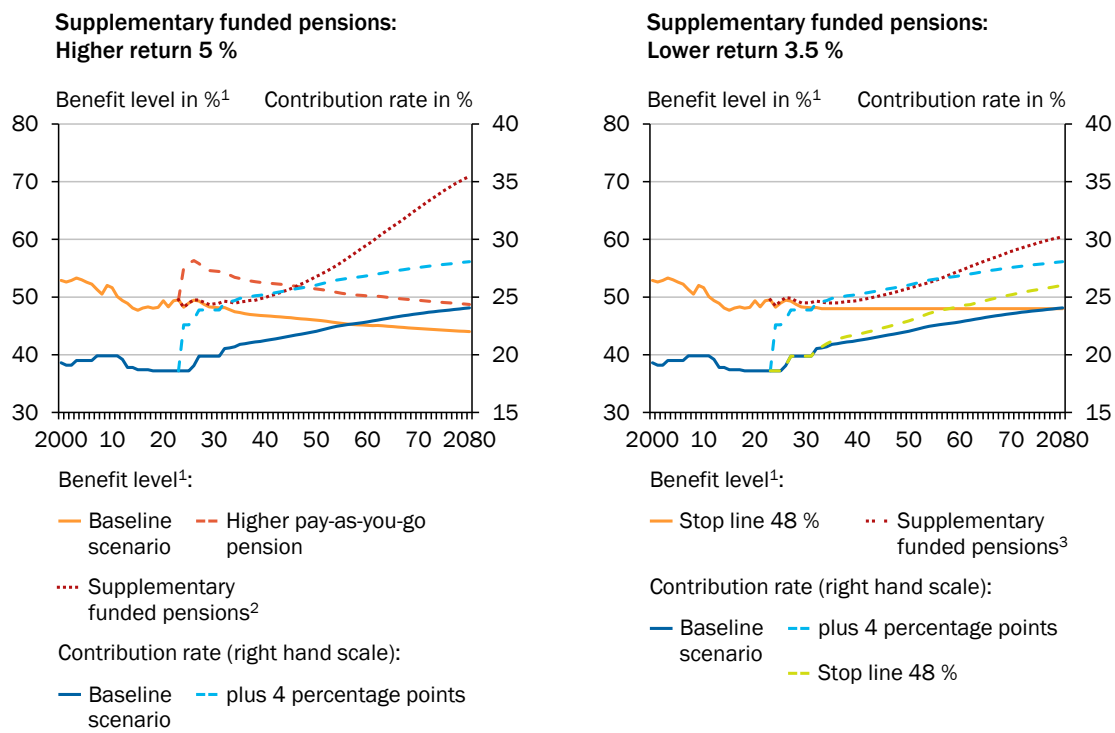
This result, however, **ignores several problems of supplementary funded pensions**, which can lead to the promised high pension level not being achieved or being achieved at the expense of younger generations.

477. **The hopes of a high future pension level** of 70.9 % achievable **through funding could be disappointed**. The calculations are based on a 5 % real net yield from the fund. This figure is made plausible by reverting to detailed yield simulations by Bucher-Koenen et al. (2019). However, Bucher-Koenen et al. (2019, pp. 17 ff.) also show that the achievable portfolio values of strongly equity-based funds can be significantly reduced by financial crises shortly before the end of the pay-in phase, or that the monthly pension payments can be reduced by financial crises shortly after the start of the pay-out phase. This would appreciably reduce the probability of higher yields, even if there is no threat of total loss and the losses can possibly be recovered, provided only part of the portfolio is sold on retirement.

In addition, the **yields determined for the past will not necessarily apply to the future**. **First**, the decades since the 1980s in particular have been very strongly characterised by globalisation and an associated pronounced increase in the importance of global financial markets and rising capital-market participation with corresponding **price gains, which may not necessarily continue**. Especially in view of the increasing geopolitical risks, it does not seem advisable to

↘ CHART 138
**GRV compared to supplementary funded pensions: Alternative scenarios**



Supplementary funded pensions: Higher return 5 %

Supplementary funded pensions: Lower return 3.5 %

Benefit level in %[1]:
- Baseline scenario
- Higher pay-as-you-go pension
- Supplementary funded pensions[2]

Contribution rate (right hand scale):
- Baseline scenario
- plus 4 percentage points

Benefit level[1]:
- Stop line 48 %
- Supplementary funded pensions[3]

Contribution rate (right hand scale):
- Baseline scenario
- plus 4 percentage points
- Stop line 48 %

1 – Net before taxes; in the case of supplementary funded pensions: average for all pensioners.  2 – Scenario with a real return of 5 % per year.  3 – Scenario with a real return of 3.5 % per year. The previous Riester pensions are taken into account here.

Sources: Deutsche Rentenversicherung, SIM.21, own calculations
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rely on this in the coming decades. **Second**, past yields have been based on **real growth rates that may not continue** in view of demographic ageing in advanced economies and declining potential labour force. **Third**, and finally, based on the literature, the Council majority **cannot** itself **rule out** the possibility of an **asset meltdown** in which the value of pension assets diminishes as they are used. ↘ ITEM 452 However, with lower rates of return, the hoped-for benefits of supplementary capital-based retirement provision are also reduced. If we assume a lower yields of 3.5 % instead of the real yields of 5 %, the pension level in 2080 falls by 10.5 percentage points and the difference to the pension level of the GRV is reduced. ↘ CHART 138 RIGHT

478. Even assuming that the pension level really will increase to 70.9 % by 2080, as stated by the Council majority, this does **not** mean that this would indeed be **associated with a corresponding improvement in the position of pensioners without burdening the younger generations**, who would then be working. Following the **'Mackenroth thesis'** (Mackenroth, 1952), from a real-economic point of view a pay-as-you-go system always exists with regard to the national economy's resources, because the social benefits of each period have to be paid out of the current production of the national economy, regardless of how they are financed. The calculated higher pension level from supplementary funded pensions thus initially only meant a financial claim to the corresponding amount of resources, without it being certain that it could actually be met.

On the basis of the simulations on the effects of an increase in the pension level in the GRV compared to the baseline scenario to 48 %, it can be estimated approximately how large the additional financial claim of the pension-receiving generation would be in 2080 at a net pension level of 70.9 % compared to the baseline scenario. A four-percentage-point increase in the pension level leads to higher pension expenditure amounting to 0.9 % of GDP in 2080. Accordingly, the calculated **26.9-percentage-point increase in the pension level** in the case of funded pensions would lead **to higher entitlements** for the pension-receiving generation **amounting to 6.1 % of GDP in 2080**. This is almost seven times more than the increase in pension expenditure, considered alarming by the Council majority, of 0.9 % of GDP caused by the permanent guarantee of the net pension level in the GRV at 48 %. **The question is how** such a much higher entitlement **is to be honoured in real-economic terms**.

479. As Werding et al. (2023) rightly note, the 'Mackenroth Thesis' neglects the fact that the funded pension could lead to a higher GDP in the future via higher capital accumulation, and it only applies to closed economies. Thus, one **way to satisfy** potentially **higher claims by the pension-receiving generation** from private capital cover vis-à-vis GDP in the future is if the **higher private savings** due to the capital cover leads to higher **capital accumulation and thus to a higher GDP in the future**. However, Werding et al. (2023, p. 6) point out that the empirical evidence for this effect is mixed, which is why it is generally not clear whether one can hope for such growth-enhancing effects.

In the case of **Germany**, there is the additional factor that, according to the GCEE's analyses of potential growth ↘ ITEMS 99 FF. in the coming decades, the

**prospects for increases in growth** appear **limited and uncertain** due to the scarcity of the factor labour. Moreover, the publicly managed **equity-based fund** is to be broadly diversified and specifically invested globally, so that only a **fraction of the additional savings is to flow into Germany at all**, where it could increase the capital stock. Furthermore, the analyses in the chapter on the capital market ⌄ ITEM 207 show that in Germany the **macroeconomic savings** which are in principle available for investments – if one wants to take a capital-supply approach and neglect the fact that investments do not necessarily presuppose savings formation (Bibow, 2001) – **are already very high**. Therefore, a substantial part of it already flows abroad and is **not invested domestically**. Finally, the Council majority's target volume for private retirement provision of 4 % of gross wages and salaries, or about 1.5 % of GDP in 2080, undoubtedly has macroeconomic relevance. Even assuming that only parts of it are likely to be **additional savings** because private households substitute existing Riester contracts or other forms of investment, **private consumption** could be **adversely affected** to a relevant extent, which is likely to curb growth at least temporarily.

480. A **second possible way** to **satisfy** potentially **higher expectations of the pension-receiving generation** in the future could be correspondingly **higher imports**, which would then be available domestically. In order to satisfy the overall entitlement of 6.1 % of GDP, the macroeconomic import ratio in Germany would evidently have to rise by this amount, thus reducing the current-account balance. From a partial perspective, this may seem conceivable and even desirable in view of **Germany's permanently excessive current-account surpluses** (Behringer et al., 2020). However, in the phase of growing private savings predominantly invested abroad, the accumulation of pension assets could initially be accompanied by higher current-account surpluses and thus **missed targets in foreign trade equilibrium**.

From a global perspective, however, it must be taken into account that many **other countries that are likewise facing demographic problems** also have supplementary funded pension systems. Germany, as analysed, is rather a latecomer in this respect. In the next few decades, many industrialised countries with limited domestic production capacity could therefore try – via their accumulated pension funds – to use imports to satisfy the increased demand for consumption caused by the ageing population. **Globally, however, not all countries can reduce their current-account balances in the same way in purely accounting terms**. For this reason, the IMF (2023), for example, strives for **multilateral consistency** in its External Sector Reports when analysing current account balances in equilibrium; this consistency is ensured by only taking national factors into account as deviations from the global average. It is conceivable that in future mainly emerging and developing countries with younger populations will take over the supply of the ageing populations of many industrialised countries by means of rising exports. However, in view of the **increasing geopolitical problems and risks**, it would be **reckless to rely on this**.

481. Overall, therefore, it seems **problematic to rely on the very positive effects of supplementary funded pensions hoped for** by the Council majority. First, one has to reckon with the possibility that the yield and thus the assets

available to the elderly population will not be as large as reflected in the calculated net pension level of 70.9 % in 2080. Second, it is uncertain whether the additional expectations of the elderly population vis-à-vis GDP represented by the fund assets can actually be met in the future: a growth-promoting effect of capital cover via higher capital accumulation is unlikely, and the prospects for the necessary higher imports are uncertain.

482. One objection to the position adopted here is that the macroeconomic dimensions used are exaggerated because it is not to be expected that there will be an increase in macroeconomic savings to the full extent of four contribution points, since private households will substitute existing Riester contracts or other forms of investment. In this case, however, the average achievable additional pension level through capital cover would also have to be adjusted downwards accordingly. The **doubts** formulated with **regard to the yield level to be applied** and whether the accumulated pension assets **can be satisfied by the real economy** in the future remain unaffected by this.

## Massive pension cuts

483. The **Council majority** advocates **bundling measures for reforming the GRV**, which complement each other in terms of their effects and together should both ensure the sustainability and appropriateness of the reform and make political implementation possible. Specifically, an adjustment of the sustainability factor or the price indexation of pensions after award is combined with an automatic increase in the statutory retirement age according to the development of long-term life expectancy and an expenditure-curbing progressive pension assessment (redistributive element).

The overall result ↘ CHART 136 (combination of raising the statutory retirement age + adjustment of the sustainability factor + progressive pension assessment) looks impressive at first: compared to the baseline scenario, the contribution rate falls by 4.6 percentage points up to 2080 and never exceeds the level of 20 %. At the same time, even the pension level of the standard pension rises by 4.4 percentage points in 2080 and, at 48.4 %, is even slightly above the level of the currently applicable stop line.

484. However, this result should not obscure the fact that, overall, this involves **massive pension cuts and deteriorations in the pension level**, at least for all insured people who are above the standard pension level. The cuts in the GRV discussed by the Council majority, as a cumulative package, go far beyond those proposed in the GCEE's 2020 Annual Report. As a result, the GRV's contribution to **securing the standard of living** will be greatly reduced and **de facto abandoned for many employees**.

485. The **adjustment of the sustainability factor or the price indexation** of pensions after award would already lead in the relatively short term to **considerable reductions in the pension level** and to lower contribution rates compared to the baseline scenario. In view of the results of the study by Buslei et al. (2023a), the Council majority is therefore rightly concerned about the resulting

threat of an **increase in the risk of poverty in old age**. Although the sought increase in the statutory retirement age has a positive effect on the pension level, it can by no means compensate for the reduction compared to the baseline scenario, and leads to additional problems. ↘ ITEMS 487 F.

486. In the conceptual thoughts of the Council majority, the proposed **redistributive element of an expenditure-curbing progressive pension assessment** is of key importance in **avoiding the threat of poverty**. In principle, **redistributive elements within the GRV** could be **justified by the solidarity principle** and could **make sense.** However, in the concrete expenditure-curbing version of the Council majority, they lead to a massive pension cut. Because pensions below the standard pension are upvalued, there is a strong increase in the net pension level of the standard pension – by 3.8 percentage points in 2080 compared to the baseline scenario. However, this result comes at the price of a **drastic reduction in pension entitlements above the standard pension**. ↘ CHART 130 As a result, the average net pension level will fall by 6.9 percentage points compared to the baseline scenario to only 37.1 % in 2080. Thus, a person with 45 years of contributions could acquire a maximum of about 90 earning points in the current GRV system. In the proposed expenditure-curbing system, this value would be limited to about 67.5 earning points. The monthly pension would fall from the current level of €3,384 to €2,538. The **pension cuts** would **not only affect the 'rich'**, but **all employees** whose **annual gross income** is **above** the average gross income subject to social insurance contributions of **€43,142**.

Although a rising risk of poverty caused by general pension cuts would be averted with the expenditure-curbing progressive pension assessment proposed by the Council majority, **the goal of securing the standard of living within the GRV would be considerably restricted**.

## Do not push for an increase in the retirement age

487. The **Council majority** advocates an **automatic linking of the retirement age to further life expectancy** – at the age of 67 at least according to a ratio of 2:1, i.e. for every year of longer life expectancy, the retirement age should increase by eight months and the receipt of pension benefits by four months. The reform is to be adopted promptly and enter into force after 2031, by which time the current gradual increase of the retirement age to 67 years will have been completed.

488. While it is true that further raising the statutory or de-facto retirement age is an option worth considering in order to stabilise the GRV's pension level and contribution-rate level, it is **not necessary to implement the reform as quickly as possible**.

**Political-economic arguments**, according to which a quick solution is necessary because the prospects for reform are weakening with the increasing age of the electorate, **cannot be convincingly justified** in view of the literature. A pessimistic position, which fears a 'gerontocracy' due to increasing ageing and thus the impossibility of further reforms (Sinn and Übelmesser, 2003), stands in

contrast to a more optimistic position in Bittschi and Wigger (2019), which also believes that better political feasibility is possible in the future.

489. The **social problems** for certain socio-economic groups **created by further raising the retirement age**, which are addressed in remarkable detail by the Council majority, are also an argument against the rapid adoption of further rises in the retirement age. First, life expectancy correlates clearly with income and other socio-economic factors (Brussig and Schulz, 2019). As a result, primarily people with lower incomes would be disadvantaged if the statutory retirement age were raised, because their pension-receipt period would be more restricted, relatively speaking, due to their lower further life expectancy. Second, many people in employment, especially in physically or mentally demanding occupations, who also often have lower incomes and who are already leaving the labour force earlier today, would hardly be able to reach the higher statutory retirement age and would consequently have to accept considerable deductions from their pensions.

490. The **price indexation proposed by the Council majority** could, like a **progressive pension assessment**, also tend to benefit the groups of people concerned. Price indexation raises first-time pensions and thus tends to support groups of people with shorter lives and lower incomes. Progressive pension assessment raises low-level pensions disproportionately and thus supports lower-income groups. However, as explained, **both measures** have **serious side effects** and can therefore not be advocated. Price indexing sharply lowers the general pension level and **increases the risk of poverty** among people who live longer. Progressive pension assessment largely leads to an **abandonment of the goal of securing the standard of living**.

491. The measures considered by the Council majority in the area of **reduced-earning-capacity pensions and early retirement, as well as collectively agreed regulations**, could contribute to alleviating the problems. However, it is unclear whether they as a whole already do justice to the complexity of the problems (Bäcker, 2018). As long as this is the case, an **automatic increase in the retirement age should not be pushed**. Instead, policy-makers, scientists and the democratic public should **use the time until** the current regulations expire **in 2031** to look for **convincing solutions**.

## Alternatives

492. According to the position taken in the present dissenting opinion, the **demographic development will inevitably lead to an increasing macroeconomic burden**, in the sense that a larger share of real economic output will have to be spent on providing for the elderly population. The problem occurs **largely independently of different financing channels**. It will therefore **hardly be possible to solve it with** additional **capital cover**. There are thus ultimately **two possible ways** to deal with the increasing macroeconomic burden of demographics. **First**, different types of financing can change the **intragene-rational distribution of the burden** and **make it more socially acceptable**. **Second**, the burden can be reduced by means of **real domestic economic growth**, which increases the future scope for distribution.

493. Instead of further undermining the **GRV**, it should be **strengthened financially and net pension level stabilised in the long term** above the level of the current system, e.g. at **48 %**, which the federal government is striving for. If this were implemented solely through an increase in the contribution rate with a corresponding increase in the federal subsidy, in the long term the contribution rate would, according to the simulations, be two percentage points – and the macroeconomic pension expenditure 0.9 % of GDP – above the baseline scenario. If this is compared with the effects of supplementary funded pensions, albeit with a lower rate of return of 3.5 %, it does not fare badly at all ⬂ ITEM 477 (Werding et al., 2023). Although the net pension level of 48 % is clearly below the 60.4 % for funded schemes, the total contribution rate of 26.0 % by 2080 is well below the 28.1 % that needs to be spent in the baseline scenario, plus the four percentage points for funded schemes. In relation to GDP, 0.9 % more will have to be spent in the GRV in 2080, while the four contribution points should correspond to about 1.5 % of GDP. After all, as explained, it is not clear whether an entitlement to a significantly higher pension level of 60.4 % with funded pensions can really be met in real economic terms in 57 years.

494. If the GRV contribution rate is not to increase by too much, **more tax financing of the GRV** can also make sense. Certainly, this creates a higher burden elsewhere; however, this will also arise as a result of the four additional contribution points which, according to the Council majority, are to flow into funded pensions. In contrast to contribution increases in the GRV, higher tax financing would also involve pension recipients to a not inconsiderable extent through their share of tax revenue. One possibility could be greater tax financing of **non-contribution-covered benefits** according to an extended definition that would justify an increase in the federal subsidy of about 1 % of GDP. ⬂ BOX 23 Following on from the Council majority's proposal regarding redistributive elements in the GRV, a progressive pension assessment could also be considered, which could not, however, be mixed with general pension cuts, and could be financed via a tax subsidy while adhering to the principle of equivalence.

Finally, according to the simulations, the compulsory **inclusion of all self-employed people who have not been compulsorily insured** to date could appreciably increase the net pension level over decades and slightly reduce the contribution rate.

495. Many measures are possible aiming to **strengthen domestic economic growth** and to broaden the scope for distribution in the future. In this Annual Report, the Council of Economic Experts makes many proposals, such as increasing employment, expanding education and further training, labour migration and a public and publicly funded investment offensive. The simulations in this chapter show that the financial burden on the GRV can be considerably eased in the short to medium term by increasing female employment in particular, by more immigration into the labour market and by a voluntary increase in the employment of older people.

# A differing opinion

**496.** The Council majority argues that redistribution within statutory pension insurance (GRV) could help strengthen pension adequacy and contribute to the GRV's financial sustainability in the medium to long term. ↘ ITEM 435 One member of the GCEE, Veronika Grimm, cannot agree with the GCEE's majority position in Chapter 5 'Population ageing surge and pension reforms' on this point.

**497.** Various proposals for **redistribution within the GRV** are discussed by the Council majority and positively assessed as a possible contribution to adequacy and financial sustainability. One possible way to reduce the risk of poverty in old age is said to be a progressive pension calculation. Here, people with a low lifetime income and consequently low pension entitlements receive disproportionately high pension benefits. In order to finance the measure, **pension payments would be reduced for people with above-average lifetime incomes**. ↘ ITEM 432

However, since there would be cause for concern that such a mechanism would reduce the macroeconomic labour supply (Fehr et al., 2011; French et al., 2022; Kindermann and Püschel, 2023b), the Council majority advocates a **redistribution based on their annual income which is subject to social insurance contributions** (Kindermann and Püschel, 2023b). Under such a scheme, in years with a low income subject to social insurance contributions, people receive a disproportionately high number of earnings points. Above a certain annual income subject to social insurance contributions, on the other hand, the number of earned earnings points would only increase by a disproportionately small amount. The monthly pension would then be calculated directly in proportion to the accumulated earnings points at the time of retirement. ↘ ITEMS 436 F. ↘ CHART 127

**498.** The proposed redistribution based on annual income subject to social insurance contributions could – according to the Council majority – **reduce the ratio of pension payments to contribution payments for higher income groups** without too many people from low-income groups falling below the at-risk-of-poverty threshold. Since, due to the reduction of pension payments to higher income groups, the sum of pension payments under the GRV would not increase excessively, the proposal could contribute to the financial sustainability of the GRV.

**499.** What all the proposals have in common is that **they break with equivalence principle of the GRV**. Up to now, so-called participation equivalence has applied in the GRV, i.e. the amount of entitlements is primarily determined by the amount of contributions. Today, the equivalence principle in retirement insurance thus ensures that the level of benefits and the contributions paid are closely related. It thus puts the **insurance character of the GRV** in the foreground. For socio-political reasons (solidarity principle), the legislator provides for additional non-insurance benefits, which are financed by subsidies from the federal budget (Deutscher Bundestag, 2016, 2018).

500.  **The redistribution within the GRV** proposed by the Council majority weakens the equivalence principle in favour of the solidarity principle. If benefits and contributions are increasingly decoupled and the distribution of funds under the state pension within the GRV takes centre stage, **the separation between the equivalence principle and the solidarity principle, which has been the aim so far, would be lost**. This applies in particular if the extraneous character of the redistribution in the GRV does not lead to a federal tax-financed subsidy of appropriate size. However, as rightly pointed out in the main text, this is unrealistic for the proposed model due to the complexity of calculating such a subsidy.
↘ ITEMS 438 F.

501.  The **concerns** about redistribution within the GRV are **set out in detail** below.

## Targeting the fight against the risk of poverty

502.  **Redistribution via the GRV is inevitably less targeted than combating the risk of poverty via the tax and transfer system.** Income tax is based on the **principle of ability to pay** and takes into account all income as well as family circumstances. In the case of tax financing, all citizens would thus be called upon to combat the risk of poverty in old age according to their ability to pay. The **household principle** also applies to the basic income support for the elderly, and assets are taken into account apart from an exempted 'protected amount' of €10,000.

By contrast, the **individual principle** applies to the GRV. Furthermore, redistribution within the GRV would not take into account an insured person's further income or existing assets. This implies that people would also benefit from the redistribution within the SPS who are well protected through their spouse, assets or their own old-age provision outside of the GRV. The benefits would only be financed by people with above-average **incomes subject to social insurance contributions**. The rest of the citizens would not be called upon to contribute.

## Solidarity community and tax revenue

503.  When it comes to distributing the burden of combating the risk of poverty in old age, **tax financing is preferable** to financing from the contributions of the GRV, particularly because a large proportion of financially viable people, such as civil servants, freelancers or self-employed people, are not insured in the GRV.
↘ CHART 139 In the case of tax financing, it would be ensured that especially well-off citizens could not avoid contributing to the costs – which would be the case with a redistribution within the GRV as proposed by the Council majority.

504.  **The 2.1 million civil servants**, together with the **3.6 million self-employed** who are not in the GRV, **currently make up about 13 % of the labour force.**
↘ CHART 139 Freelancers and self-employed people with employees have – like civil servants– significantly higher gross annual incomes than employees subject to social insurance contributions. For example, in 2017 the earnings of men working freelance were 161 %, those of civil servants 112 % and those of self-employed people with employees 123 % (in the age group 44 to 66; Haan et al., 2017, p. 31)

compared to the average gross annual income of an employee subject to social insurance. In the case of women, the income differences point largely in the same direction, but are much less pronounced. Although the main text of the report points out that redistribution within the GRV could require the inclusion of civil servants and the self-employed in the GRV, ↘ ITEM 439 this is unlikely to be politically feasible, especially in the case of civil servants. For further arguments for and against the integration of the self-employed into the GRV, see also GCEE Annual Report 2011 items 530 ff.

505. The main text of the report rightly points out that the equivalence principle is already being breached in various places today. However, benefits that are not paid in proportion to pension points have so far typically been financed from federal subsidies (Deutscher Bundestag, 2016, 2018). This ensures that **insured people do not have to assume that they will be worse off** relative to their contributions **determined by their income**. Today, for example, the basic pension is a benefit that is financed from taxpayers' money. The same applies to the pension points that are credited for child-raising periods.

506. Ideally, federal subsidies should in future continue to be used to pay non-insurance benefits – if these are to be expanded and not reduced within the GRV. Such an approach would reflect the fact that it is a **political decision to grant these additional benefits**. Moreover, it would then also be clear that the burden of

↘ CHART 139

**Old-age provision for employed people (as of 2021)**

| People in employment 44.9 million | | | | | |
|---|---|---|---|---|---|
| Employees 40.1 million ( 41.0 million, less 0.9 million in parental leave) | | | Self-employed 3.9 million ( incl. family workers) | | |
| **Statutory pension scheme** 32.9 million | **Other compulsory insurance** 2.8 million | **Without compulsory insurance** 4.4 million | **Statutory pension scheme** 0.3 million | **Other compulsory insurance** 0.6 million | **Without compulsory insurance** 3.0 million |
| Among them: in the sliding zone 1.2 million apprentices 1.7 million only marginally employed 0.8 million employed pensioners 0.3 million | Civil servants, including judges and soldiers 2.1 million Insured employees in occupational pension schemes 0.7 million | Only marginally employed 3.8 million of which: marginally employed pensioners over the statutory retirement age 1.0 million Work opportunities (1-euro jobs) 0.1 million Employed pensioners over the standard retirement age 0.3 million Others, e. g. working students, trainees 0.2 million | Insured persons on application 0.02 million Insured persons by law 0.07 million Artists/ publicists 0.18 million Craftsmen 0.06 million | Self-employed in the pension scheme for farmers 0.2 Mio Self-employed in the occupational pensions schemes 0.4 million | Of which: Over 65 years 0.4 million |

Source: Federal Ministry of Labour and Social Affairs
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redistribution is borne by all taxpayers and not only by those insured under the GRV.

## Acceptance of the GRV and adequacy of pension benefits

507. **Acceptance** of the GRV **could suffer** if the proposals of the Council majority are implemented. If the GRV deviates further from the equivalence principle – e.g. if it increasingly benefits employees who are already covered by other schemes and calls upon fewer work-capable employees outside the GRV to finance the scheme – then this could generate greater rejection. ⬐ ITEMS 502 FF.

508. The **losers of such a reform** tend to be **all employees whose annual gross income is higher than the average gross income of people who are subject to social insurance of €43,142** (about €2,620 net per month under tax class I). For these groups of people, the financial leeway in old age would be limited, even though some of them have been paying contributions for a lifetime. For surveys that show high approval rates for redistribution in the GRV (Breunig et al., 2022) the question arises as to whether these income groups are aware that they would not benefit from the solutions, but on the contrary would have to contribute to the financing by giving up part of their retirement pension. Other surveys cast doubt on the claim of broad approval (IfD Allensbach, 2023, p. 20).

509. If, as proposed by the Council majority, people were to receive a disproportionately high number of earning points in years with a low income subject to social insurance contributions (redistribution based on annual income subject to social insurance contributions), it could also happen that **people with identical lifetime incomes acquire different pension entitlements** depending on their employment history. The underlying principles of solidarity are likely to be difficult for many people to understand if the equivalence principle is abandoned in this way; it could also reduce acceptance – contrary to what the Council majority assumes on the basis of the hypothetical survey by Breunig et al. (2022).

510. In this context, it should be noted that the **adequacy of pension payments**, as defined by the European Union's 'Pension Adequacy Report', is not necessarily increased by redistribution within the GRV. The European Commission (2021, p. 22) bases its concept of pension adequacy on three criteria: (i) poverty protection, (ii) income maintenance and (iii) pension/retirement duration. Income maintenance means that the **adequacy of pensions is also to be measured by their capacity to replace the income earned before retirement**. Due to the existing conflicts of objectives, it is therefore easily possible to question the plausibility and the degree to which the solution achieves its objectives with credible arguments for every possible form of redistribution within the GRV. This can quickly turn the basic acceptance of redistribution in the GRV as determined in hypothetical scenarios into its opposite.

## Incentives to work

511. The further departure from the equivalence principle discussed positively by the Council majority could lead to **negative incentives to work** for members of

higher income groups, for example because their pension points are then worth less, or because less acceptance of the system reduces their willingness to work. This would have a negative impact on the GRV's financial sustainability and, moreover, pose macroeconomic challenges in times of a labour shortage (Advisory Board to the Federal Ministry of Finance, 2020, p. 16). With regard to the people's labour supply response, the simulation results in the main text of the report are driven by assumptions made with the help of econometric analyses which, at best, focus on the current system. However, the elasticity of the labour supply may turn out differently after the proposed adjustment of the regulatory framework. Weakening the GRV's current basic principle would also increase **future uncertainty about security in old age**. Luttmer and Samwick (2018) show that individuals have a high willingness to pay to reduce risks through their pension payments, which is why a lower predictability of the system can be accompanied by high welfare losses.

## Emigration

512. Higher income groups may not only respond with supplying less labour, but also by withdrawing from the GRV system entirely. This can happen in various ways. **Emigration** of people with German citizenship **has been rising for years** and may increase further because the attractiveness of retirement provision (which is already low by international comparison, cf. Pettinicchi and Börsch-Supan, 2019; OECD, 2021) continues to deteriorate in relative terms. In other countries with redistribution within the public pension system, such as the United States or Switzerland, this system only offers a minimum level protection. There, a larger proportion of retirement provision is based on funded pensions, where yields are likely to be significantly higher in future than under the pay-as-you-go system. There has been a net emigration of people with German citizenship since 2005. The migration loss amounted to 83,000 people in 2022 and was thus higher than in the previous year (2021: -64,000; Federal Statistical Office, 2023e). The main

↘ CHART 140

**Emigration of Germans abroad in 2022[1]**
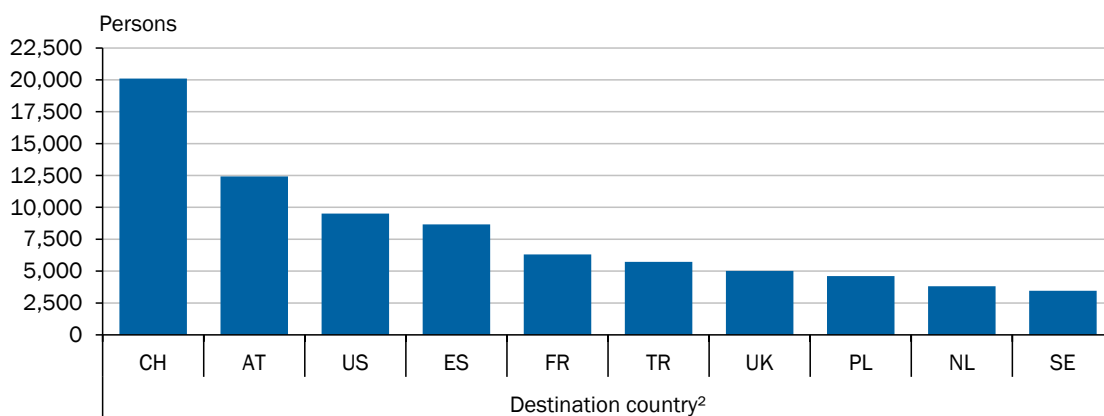


1 – Total departures abroad: 268,167 persons. 2 – CH-Switzerland, AT-Austria, US-USA, ES-Spain, FR-France, TR-Türkiye, UK-United Kingdom, PL-Poland, NL-Netherlands, SE-Sweden.

Source: Federal Statistical Office
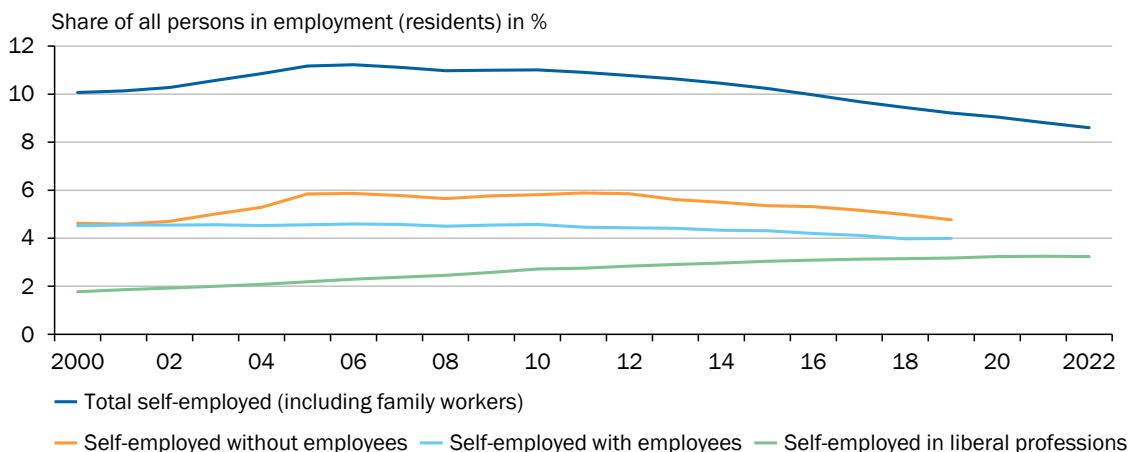
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destination countries in 2022, as in previous years, were Switzerland, Austria and the United States. ⬊ CHART 140

## Self-employment

513. In Germany, there is no compulsory retirement provision for many self-employed people. However, the self-employed can participate in the GRV on a voluntary basis. ⬊ CHART 139 Redistribution via the GRV can therefore lead to **adverse selection**, which **weakens the GRV's financial sustainability**. Thus, while redistribution may make participation in the GRV more attractive for low-income earners among the self-employed, membership will become less attractive for self-employed people with higher incomes.

514. Redistribution in the GRV could also make a complete or partial escape from dependent employment into self-employment more attractive for those with above-average incomes. The rate of self-employment among those in employment rose from 10.96 % to a level of 11.6 % between 2000 and 2011 (OECD, 2023), before falling to 8.75 % in 2022. ⬊ CHART 141 The increase in self-employment up to 2011 was probably largely due to the difficult labour-market situation and the resulting expansion of support for start-ups, and was also helped by the relaxation of the Trade and Crafts Code (GCEE Annual Report 2011 item 522). The decline after 2011 likely had at least partially methodological reasons due to adjustments in the legal situation (e.g. abolition of the legal entitlement to the start-up subsidy in 2011, the reintroduction of the master craftsman requirement in some trades, IfM, 2023a) and therefore does not allow any clear conclusions to be drawn about a trend in the rate of self-employed with high average incomes. The number of **self-employed in the liberal professions** (management consultants, lawyers, doctors, engineers) has **doubled since 2001** (IfM, 2023b). ⬊ CHART 141 The number of **commercial sideline start-ups rose by 9.9 % to 290,000** in 2020 (Kay and Kranzusch, 2021). These were often employees subject to social insurance contributions who become self-employed alongside their dependent employment.

⬊ CHART 141
**Self-employed according to forms of employment over time**



Share of all persons in employment (residents) in %

— Total self-employed (including family workers)
— Self-employed without employees — Self-employed with employees — Self-employed in liberal professions

Sources: Bundesverband der Freien Berufe, Federal Statistical Office, own calculations
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515. It therefore cannot be ruled out that highly qualified people will withdraw from the GRV completely or partially by means of **legal self-employment** or **pseudo-self-employment**. If the equivalence principle is increasingly weakened in favour of a redistribution within the GRV, it is particularly attractive for people with higher incomes to combine employment subject to social insurance contributions with a sideline job, and to secure their provision in old age largely outside the GRV via the capital markets, where the return today is again likely to be significantly higher than under the pay-as-you-go system. If, in this case, their income subject to social insurance contributions falls below the average, they additionally benefit by taking such a step from the redistribution within the GRV.

## Objective of the reform

516. Finally, it is worth taking a closer look at the objective of a reform that partially turns the pension system into a transfer system through progressive pension assessment. The text of the Council majority points out that there is already an 'unintended' redistribution in the pension insurance system, as lower income groups have a significantly lower life expectancy than higher income groups. Although it is noted that no causality can be established (different eating habits or different access to or use of health services could be causes), the phenomenon referred to as '**unintentional redistribution**' is nevertheless used as a justification for proposing comprehensive redistribution within the GRV.

517. Depending on the **cause-effect relationship**, however, it might be advisable to solve the existing inequality (in this case with regard to life expectancy) through suitable political measures outside, rather than within, the GRV (cf. also the remarks in the GCEE Annual Report 2011 items 536 ff.). In any case, this relationship is not suitable as a justification for redistribution within the GRV. This also applies to other passages in the text that positively emphasise that the proposals will lead to an improvement in the position of women, especially women with children and little education, at the expense of insured men. ↘ ITEM 435 Against this background, it is also not very expedient to restrict early retirement without deductions to people with low incomes. ↘ ITEM 417

While it is undoubtedly **right to place a strong political focus on marginalised and poorly represented population groups**, the GRV is the wrong place to do this. Such ambitions to discriminate in favour of certain groups within the pension scheme are likely to provoke discussions that ultimately lead to a further erosion of the GRV.

## Implementation and political economy

518. Finally, there are political economy problems with possible implementation: **there is no indisputably fair way** to redistribute within the GRV. There is therefore a risk of competition between the political parties to put their own clientèle at an advantage. This kind of political negotiation does not usually lead to targeted solutions; and they only lead to widely accepted solutions if a very large group of people benefits. Against this background, it can be assumed from a

political economy perspective that the financial sustainability of the GRV is unlikely to be improved by the resulting political agreement.

## Conclusions

519. A combination of effective measures is required to ensure the sustainable financial viability of the GRV. This **chapter describes** various measures that can be **effective and important elements of a reform package**: linking the retirement age to further life expectancy ⬎ ITEMS 405 FF., a new form of funded retirement provision ⬎ ITEMS 449 FF., the adjustment of the sustainability factor ⬎ ITEMS 421 FF., the linking of pensions after award to consumer price trends ⬎ ITEMS 425 FF., and a reform of widows' and widowers' pensions that makes de-facto splitting the standard. ⬎ ITEMS 443 FF. Higher immigration ⬎ ITEMS 393 FF. and higher levels of employment, e.g. of women or older people, ⬎ ITEMS 388 FF. can temporarily take some of the pressure off the GRV. Social hardships should be cushioned by targeted hardship rules.

520. The **introduction of further redistributive elements within the GRV**, which is discussed and positively assessed by the Council majority in the chapter ⬎ ITEMS 430 FF., on the other hand, does **not seem expedient**. It would involve a fairly far-reaching abandonment of the principle of participation equivalence, and would thus represent a risk for the acceptance of a reform package. Moreover, the measures are not precisely targeted to combat poverty in old age, as the GRV is based on the individual rather than the household principle. The inclusion of civil servants and self-employed people in the GRV ⬎ ITEMS 395 FF. seems politically difficult to implement, which is why a large number of employed people with high incomes can be expected not to contribute to the financing.

521. Should the above-mentioned reforms ⬎ ITEM 519 lead to an increase in poverty among the elderly, the **tax-transfer system is suitable for providing a remedy via basic income support for the elderly**. Easing the deduction of pension entitlements could improve the security of elderly people who have paid into the GRV for many years. In view of the rising risk of poverty, ⬎ ITEMS 294 FF. and the expected future increase in the risk of poverty in old age, ⬎ BOX 25 the **stigmatisation of the transfer system** will have to be **overcome or at least reduced**. The introduction of further poorly targeted redistribution measures outside the transfer system leads to less transparency and more unintended windfall benefits, which reduce the scope for payments to those in need.

An increase in costs should be financed by adjusting income tax. In order to avoid **burdening companies with tax increases**, it would be advisable to **decouple the taxation of private companies from income tax** in the course of a reform of corporate taxation (Fuest, 2023), which would be expedient in any case.

# APPENDIX

## Background to the reform of civil servants' pensions in Austria

522. Since the reform of the civil servants' pensions in Austria in 2005, civil servants have been paying into their own fund: the Insurance Institution for Civil Servants, Railways and Mining (BVAEB; Blank et al., 2016). The reform of the civil servants' pensions contains transitional arrangements for existing civil servant employment contracts. The contribution rate for the general pension system, which in Austria is called 'Pensionsversicherung' (Pension Insurance), has been 22.8 % in total since 1988, consisting of an employer contribution of 12.55 % and an employee contribution of 10.25 % (Blank et al., 2016). This contribution is paid into the Pension Insurance Institution and finances current pensions.

523. Different regulations apply to the pensions for civil servants depending on date of birth and the date of appointment as a civil servant. Basically, three groups can be distinguished. The first group consists of civil servants born before 1 January 1955. They are fully covered by the old Pension Act (PG; Buslei et al., 2023b) and receive a salary continuation benefit of 80 % of their final salary (salary + pensionable allowances) under this regulation (Pension Act, 1965). The second group comprises civil servants born between 1955 and 1975 who were already civil servants in 2005. This group had already acquired entitlements under the old regulation (Buslei et al., 2023b). For them, a parallel calculation takes place according to the old (PG 1965) and the new law (APG 2005; Blank et al., 2016). When calculating the pension level, it is ensured that this group receives a pension that is no less than 90 % of what they would have received under the old regulation. Since 2003, this group has paid a pension contribution of between 10.25 % and 12.40 % (BMKÖS Austria, 2023), which flows into the BVAEB. The employer pays a contribution of 12.55 % (Blank et al., 2016). The third group includes all civil servants born on or after 1 January 1976. They are fully covered by the new APG legislation (Buslei et al., 2023b). Like the employer, this group pays a contribution of 12.55 % to BVAEB.

524. With few exceptions, all recipients of civil servant's pensions also pay a pension maintenance contribution (BMKÖS Austria, 2022). The amount of the contribution depends on the time of retirement and is between 1.1 % and 3.3 % of the gross pension (BMKÖS Austria, 2023). As this contribution is withheld, the pension maintenance contribution is de facto equivalent to a pension reduction (Buslei et al., 2023a). Only civil servants who retired in 2020 or later and were born after 1 December 1959 are exempt from this pension guarantee contribution (BMKÖS Austria, 2023). According to the report of the Austrian Court of Audit, the savings potential as a result of the reforms of the retirement provision system for the period 2010 to 2049 amounts to €714 billion (Rechnungshof Österreich, 2009).

## Automatic adjustment mechanisms in the pension systems of other OECD countries

525. Automatic adjustment mechanisms (AAMs), which exist in about two-thirds of OECD countries, link the development of various parameters in the pension system to macroeconomic, demographic or financial indicators (OECD, 2021). Depending on the design, this can increase the financial sustainability and the adequacy of the pension system. In particular, it reduces the need for regular discretionary adjustments and the political-economy problems that often accompany unpopular reforms. In addition, it aims to improve predictability for future pensioners, as short-term interventions in the design of the pension system are less frequent. Moreover, the extent of the adjustments is transparent, which should strengthen confidence in the pension system. Building on OECD (2021), examples of AAMs in various OECD countries are presented below.

526. Several OECD countries have linked the retirement age to further life expectancy, thus improving the financial sustainability of the pension system despite projected changes in life expectancy, while increasing the adequacy of annual pension payments. ↘ CHART 142 With the exception of Denmark (60-year-olds), the retirement age is linked to the expected life expectancy of 65-year-olds. In Denmark, Estonia, Greece and Italy the retirement age increases 1:1 with the development of life expectancy (1:1 coupling). This is equivalent to fixing the expected pension term. In Finland, the Netherlands, Portugal and Sweden (Pensionsmyndigheten, 2023a), for each additional year of life expectancy, the period during which pensions are paid out increases by four months, while the statutory working period increases by eight months (2:1 rule). ↘ ITEM 406 As a result, the ratio between people's working lives and pension-receiving periods remains roughly constant from one cohort to the next. While in Estonia, Finland, Greece, Portugal and Sweden the retirement age reacts symmetrically to a change in further life expectancy, the systems in Denmark, Italy and the Netherlands do not allow a reduction in the retirement age. In this case, however, no further adjustment of the retirement age takes place until life expectancy has again reached its previous maximum level. The rising statutory retirement age creates a greater incentive for labour-force participation in old age, which partly explains the increase in the average age at retirement observed in many countries. This trend is reinforced by other developments, such as the rising average level of education (Geppert et al., 2019; Bodnár and Nerlich, 2022).

527. In addition to the retirement age, pension entitlements are also regulated by AAMs in some countries. In particular, in pension schemes with notional defined contributions (NDCs), such as in Greece, Italy and Sweden, pension payments depend on life expectancy. Furthermore, in Finland the pension entitlements of new pensioners and in Portugal the pension entitlements of early retirees are linked to further life expectancy. In other countries, entitlements are directly or indirectly linked to changes in the number of people in employment. While in Estonia and Lithuania the sum of pension contributions or the macroeconomic wage bill is used as an indicator, pension entitlements in Greece and Portugal depend partly on the rate of change in GDP. In Japan, the change in the number of contributors is included in the calculation of pension entitlements.

**Expected development of the statutory retirement age in OECD member states where the retirement age is linked to life expectancy[1]**

Statutory retirement age in years
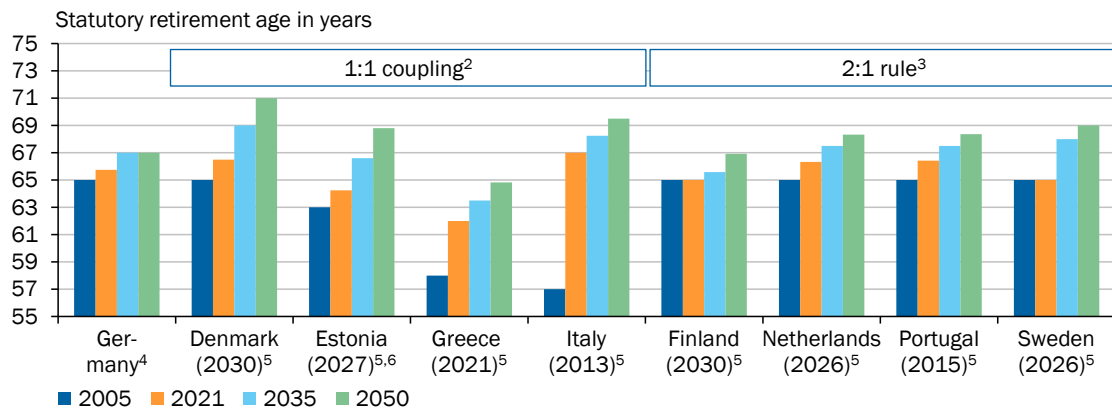


1 – With the exception of Sweden, data from OECD (2021) is used regarding persons reaching retirement age between the years 2005 and 2050. The statutory retirement age is defined as the age at which a person receives a pension without deductions that has an uninterrupted career and who entered the labour market at age 22. For details, see OECD (2021, p. 130). Data for Sweden are from the Swedish Pension Agency Pensionsmyndigheten. 2 – In Denmark, Estonia, Greece and Italy, the statutory retirement age also increases by one year for each additional year of life expectancy. 3 – In Finland, the Netherlands, Portugal and Sweden, the statutory retirement age increases by 8 months for each additional year of life expectancy. 4 – In 2021, people could retire without deductions at age 65 and 9 months until September (value shown in the chart), and only at age 65 and 10 months thereafter. 5 – The year indicates from when or since when the linking of the retirement age to life expectancy applies. The development shown also includes discretionary adjustments to the retirement age that were decided before the link to life expectancy applied. For details, see OECD (201, p. 94). 6 – The data for Estonia show the retirement age for men.

Sources: OECD (2021), Pensionsmyndigheten (2023b)
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528. Pension entitlements are also linked to the development of the price level, average wages or a mixture of both in most OECD countries. Pure and direct wage indexation of pension entitlements is practised in only four countries, while in eleven countries they are purely price-indexed. Between 2000 and 2020, eleven countries toned down the automatic increase in entitlements by increasing the share of price indexation or by introducing other AAMs.

529. In order not only to ensure the financial sustainability of the pension system, but also to stabilise its income and expenditure in the short or long term, several countries have automatic balancing mechanisms in addition to the AAMs. For example, in Germany (sustainability factor), Finland, Canada, Luxembourg, the Netherlands, Sweden and the United States, the contributions and/or pension entitlements are adjusted for a realised or projected shortfall in the pension system.

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