

PENSION PROVISION: STRENGTHEN THE THREE PILLAR MODEL

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This is a translated version of the original German-language chapter "Altersvorsorge: Drei-Säulen-Modell stärken", which is the sole authoritative text. Please cite the original German-language chapter if any reference is made to this text.

SUMMARY

The **transition** to a pension system based on **three pillars**, as introduced with the 2000s reforms, has proven to be a **right and important step**: It has contributed to financially stabilizing the statutory pension scheme in the medium term and cushioning the decline in the net replacement rate in the statutory pension scheme with occupational and private pensions. This applies even in periods of low interest rates. Instead of reversing the earlier reforms and rebalancing each pillar in favor of statutory pension provision, existing problems in the three-pillar system should be tackled through targeted improvements.

A further increase in the statutory retirement age will be necessary in order to limit the need for upward adjustments of the contribution rate and downward adjustments of the net replacement rate in the long term, in particular after 2030. **Linking the retirement age to future life expectancy from 2030 onwards** would help to create a more stable pension system. This would probably lead to a net replacement rate of 42.1 % and a contribution rate of 23.9 % in 2080. A new floor for the net replacement rate, say, at 45 %, implies that contribution rates will have to rise significantly higher. The inclusion of self-employed without mandatory coverage in the statutory pension scheme would also have less favorable effects.

In addition, a harmonization of pension legislation in West and East Germany 25 years after reunification would be useful. The German Council of Economic Experts continues to consider the best possible approach to a uniform pension legislation to be a **rebasings of the parameters relevant for the calculation of the amount of pension benefits to figures for Germany as a whole**. As explained in its Annual Report 2008/09, this could be achieved such that it preserves vested rights, because it is neutral in terms of distribution and cost at the changeover date.

In occupational pension provision, there is a need to act in particular with regard to small and medium-sized enterprises (SMEs) and low-income earners. To make occupational pension provision with an allowance incentive more attractive for low-income earners, it would be necessary to **abolish double social security contribution** as part of the Riester pension within the occupational pension system. Greater participation in occupational pension provision among SMEs could be achieved through a reduction of costs relating to information acquisition and administration. Business associations could play a stronger role here. In addition, unions and employer organizations could offer a standard product.

In private pension provision, participation in the Riester pension scheme should be increased, particularly among low-income earners. Lack of knowledge about entitlement to state funding, the (false) assumption of being dependent on old-age basic income support in the future, lack of market transparency and lack of financial education are likely to be responsible for the insufficient level of participation. An improvement in financial knowledge, a general entitlement to funding and more transparency would thus be helpful. Moreover, **individuals' payments to government-funded pension provision**, if applicable provided in a lump sum through an allowance, **should be exempted from deduction from the old-age basic income support**. Finally, a non-government standard product could be conducive to higher participation.

Pension provision based on these three pillars is likely to be sufficient to ensure that old-age poverty in Germany, which is not widespread to date, continues to pose no problem for society as a whole. The best protection against old-age poverty is a continuous history of employment.

I. FEAR OF OLD-AGE POVERTY

559. Pension provision to retirees occupies politicians and the public from election cycle to election cycle, although **current discussions focus on unacceptable simplifications**. For example, various commentators have pointed out that the reforms made prior to 2007 will lead to lower pension payments from the statutory pension scheme concluding that old-age poverty will inevitably increase considerably. At the same time, state funded private pension provision, i.e., the Riester pension, was declared a failure due to its participation level, considered to be insufficient, and the current low interest rate environment. Suggestions for dealing with these problems largely aim at watering down or rolling back past pension reforms.
560. However, it will not be the actual pension payments, but the **net replacement rate** that falls. This **relative figure** indicates how high a pension will be in relation to average income if a person has earned the average income for 45 years (standard pensioner). Thus, the demographics-related decrease in the net replacement rate in the statutory pension scheme does not mean that pensions are falling in absolute or real terms, but only that they are growing more slowly than wages. Because these generally grow much more quickly than consumer prices, the **purchasing power of pensions** is likely to increase further in the future. This definition of the net replacement rate does also not take into account that the length of working life is extended beyond 45 years as a result of the increase in the statutory retirement age, and that higher pension entitlements are therefore acquired. If the longer working life was considered, the net replacement rate would fall less sharply.
561. Occupational pension provision and the Riester pension supplement the retirement provision of the statutory pension scheme as further pillars. The respective participation levels have been relatively low for quite some time. For example, the coalition agreement of the CDU, CSU and SPD provided for a reinforcement of occupational and private pension provision. Key points agreed upon by the Federal Government in order to **increase the participation level of occupational pension schemes** are now known. In addition, due to the currently low interest rate environment, it is becoming more difficult to generate the level of returns that were expected from fully funded pensions when the incentives were introduced. It is thus often argued that the pension gap resulting from the reforms of the statutory pension scheme cannot be closed, the total pension level consisting of the statutory pension scheme and the Riester pension will decline considerably and old-age poverty will inevitably rise significantly.
562. **Old-age poverty** is presently not widespread. If the payment from the statutory pension scheme is currently below approximately €775 and does not rise due to additional income or assets, for example from other family members, there is an entitlement to old-age basic income support. This is a needs-based government benefit that aims at preventing existential poverty. Because combating poverty is a task for the whole society, the basic income support is properly fi-

nanced from taxes. The financial position of private households is taken into account here.

Since its introduction in 2003, the number of recipients of **old-age basic income support** has roughly doubled to around 535,000 people in 2015, of which the majority were women. Nevertheless, the proportion of recipients of this social security benefit for all those aged 65 and above was low in 2015 at 3.1 %. This is particularly true in comparison to the under 15s; of these 14.2 % received a comparable social security benefit in 2015.

563. A rising number of recipients of old-age basic income support is to be expected in the next few years. For a scenario without behavioural adjustment and with poor labour market integration, the Scientific Advisory Board to the Ministry of Economic Affairs and Energy (BMWi) (2012) identified an **increase in the rate of old-age poverty to 5.4 % in 2029**. This would remain significantly lower than the proportion of under 15s who already depend on the corresponding social security benefit at present. The figure of an anticipated old-age poverty rate of 50 % circulating in the media this spring is however absurd (Börsch-Supan and Bucher-Koenen, 2016).
564. Moreover, the anticipated rise in the number of recipients of old-age basic income support calculated by the Scientific Advisory Board to the BMWi is unlikely due to the reforms of the statutory pension scheme. In fact, the past few decades have seen further developments that increased the risk of a low statutory pension (GCEE Annual Report 2011 items 521 ff.). These include in particular the **worse situation on the labour market until 2005**, which was characterised by an increase in long-term unemployment and resulted in a change in the structure of the labour force. Another factor was rising wage inequality (GCEE Annual Report 2012 items 563 ff.) [▶ ITEM 819](#) Likewise, recipients of disability pensions have a greater risk of poverty and thus a greater risk of old-age poverty.
565. It is thus not helpful to reverse previous reforms due to an anticipated increase in old-age poverty. Instead, **further steps to stabilise the statutory pension scheme** beyond 2030 are necessary. In order to cushion the decline in the net replacement rate in the statutory pension scheme, occupational and private pension provision should be improved. Only several strong pillars diversify various risks such as the demographic change and capital market fluctuations.
566. A pension top-up for long-term contributors to the statutory pension system with low earnings-related pension entitlements in the past, the **lifetime achievement pension**, as provided for in the coalition agreement, is also not expedient (GCEE Annual Report 2013 items 700 ff.). It would remedy old-age poverty not by preventing people from falling into this trap, but correct their receipts by avoiding old-age basic income support upon retirement (GCEE Annual Report 2013 item 700; GCEE Annual Report 2012 items 644 ff.). A means test is nevertheless still to be carried out. Due to eligibility requirements, it is likely to prevent old-age poverty only in a small group of members of the statutory pension scheme. Nevertheless, the lifetime achievement pension would lead to an

additional burden for contributors as soon as it is partially financed from contributions (Feld et al., 2013).

567. In order to effectively counter old-age poverty, **prevention measures** that lead to good labour market integration are necessary instead. These must be implemented before a person's working life begins. After all, high education and professional qualifications offer best prospects on the labour market while keeping the risk of unemployment at a minimum. An education policy beginning with preschool education and ending with an expansion of further education and training is thus needed (GCEE Annual Report 2009 items 466 ff.). This improves the employment opportunities of unskilled people threatened by unemployment. In addition, an employment-oriented labour market policy is likely to contribute to the reduction of the risk of old-age poverty.
568. **Disability** significantly limits individual opportunities to acquire pension entitlements in the statutory pension scheme and to pay into a private pension. This increases the risk of old-age poverty. Improving health and safety at work as well as individual prevention efforts may counteract the occurrence of disabilities. In addition, the benefit adjustments in the calculation of the disability pensions could be lower in order to reduce old-age poverty in this group of people. The statutory pension scheme is currently likely to save around €3.7 billion per year through these benefit adjustments.

II. THE THREE PILLAR MODEL

569. The pay-as-you-go statutory pension scheme is the core of the first pillar of the pension system in Germany. The financial situation of the statutory pension scheme has increasingly reflected the mounting pressure from demographic change since the start of the new millennium. In order to limit the resulting strain on the first pillar, the retirement provision system underwent fundamental reform through numerous **measures**. It since consists of three pillars: standard state pensions, occupational pensions and private pensions. As a further element, the needs-based old-age basic income support ensures a basic support.

1st Pay-as-you-go and fully funded social security

570. These reforms gradually reduced the high importance of the pay-as-you-go pillar of retirement provision (GCEE Annual Report 2001 items 241 ff.). Since then, fully funded occupational and private pension provision have been complementarily state funded and seen as independent pillars of provision. In addition to relieving the financial pressure on the statutory pension scheme, the goal of **having pay-as-you-go and fully funded systems exist side by side** was a more balanced way to share the burden across generations (BMGS, 2003). Another aim was to prevent rising contributions that further increase labour costs

and thus impair competitiveness (Börsch-Supan et al., 2016b). At the same time, the three pillars cushion different risks. Whereas a pay-as-you-go (PAYG) system is more affected by demographic change, fully funded pension types are directly impacted by low interest rates, capital market fluctuations and inflation (Börsch-Supan, 2001; Homburg, 2013).

571. In the **PAYG system**, the current pension payments are financed directly through the current contribution income. Its introduction results in the first generation of pensioners receiving benefits without having paid into the system (“windfall gains”). This made sense in Germany after World War II and in the course of reunification because the people of pension age only had a low level of savings. The burden on the contributors rises, however, when the population ages and reduces in size. The PAYG system is therefore heavily dependent on demographic changes. In the medium term, it can only sustainably work in Germany if the net replacement rate decreases or the contribution rate, statutory retirement age or federal subsidies increase. A combination of various measures is possible.
572. In the case of **fully funded pension schemes**, the scheme members build up a capital stock during their working life, which increases with interest rates and is consumed in old age. The fully funded system is more rewarding for the scheme member than a PAYG system if the return realised on capital markets exceeds the implied return of the PAYG system. The latter results from aggregate wage growth (Homburg, 2013; Wellisch, 2014). When making such a comparison of returns, it should be considered that the statutory pension scheme, in addition to longevity, also provides security against further risks such as reduced earnings capacity. Furthermore, the concept of the implied return is mainly used for intergenerational distribution analyses, where the standard pensioner is the focus. Returns realised individually often differ significantly from this. [↘ ITEMS 676 FF.](#)
573. Most countries rely on a mixed system. For example, an **international comparison** of pension systems shows that in the majority of OECD countries, PAYG and fully funded elements exist side by side. [↘ BOX 19](#)

[↘ BOX 19](#)

International comparison of retirement provision systems

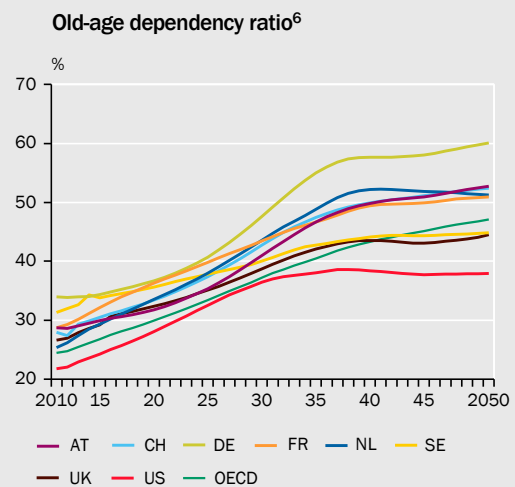
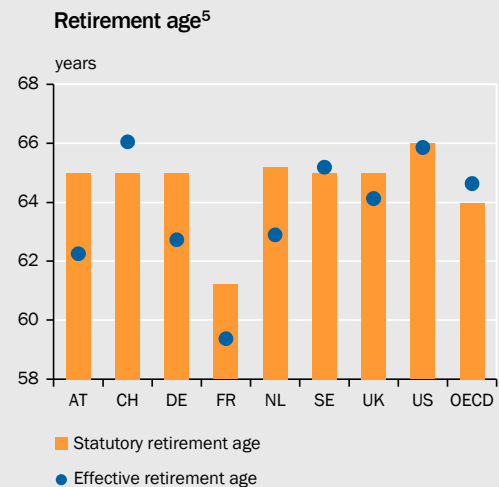
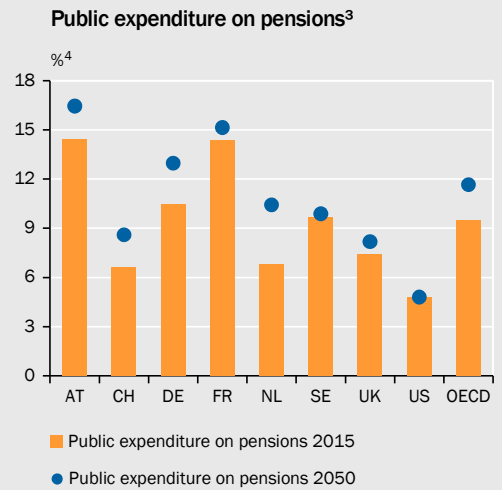
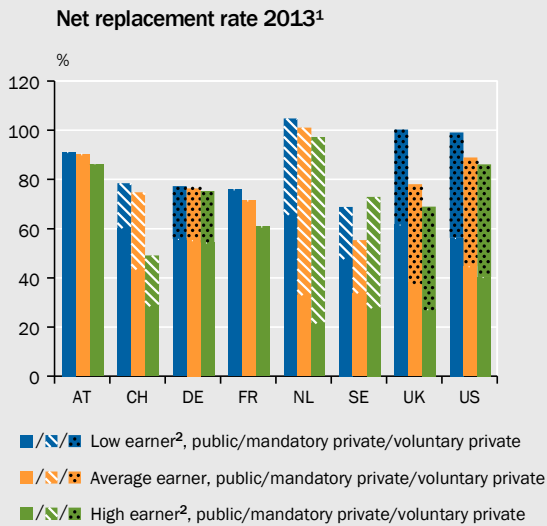
Since the mid-1990s, various **mixed systems** of pension provision exist in OECD countries. These are frequently based on a three pillar model, consisting in most cases of a pay-as-you-go (PAYG) state pension system (first pillar), a fully funded occupational pension schemes (second pillar) and private pension schemes (third pillar) (Grech, 2015; OECD, 2015a).

Examples of **distinct three pillar systems** include the Netherlands, Switzerland and Sweden (Barr, 2006; Australian Centre for Financial Studies and Mercer, 2015; OECD, 2015a). In the **Netherlands**, a fully funded occupational and private pension provision complements the flat state pension (Hinze, 2011). The flat pension is equivalent to 70 % of the minimum wage and is pay-as-you-go funded. As a result, former low earners receive a larger share of their old-age pension from the PAYG system. In Germany, in contrast, the pension payment of the statutory pension scheme is based on the earlier income position of the scheme member, meaning that the net replacement rate for income groups is,

in accordance with this equivalence principle, almost identical. ↘ CHART 76 UPPER LEFT The **Swiss model** includes a state pay-as-you-go minimum and maximum pension, which also breaks with the equivalence principle (Feld et al. 2012a, 2012b). In **Sweden**, pension payments depend on a flexible retirement age, the average life expectancy of the cohort and the contribution payments (Sundén, 2006). Part of the pension contributions are withdrawn from the PAYG system and invested in the capital market by state pension funds.

↘ CHART 76

Comparison of pension systems



1 – Due to missing data private and occupational pensions are not fully covered for all countries. 2 – Low/high earners denote full-time workers with 0.5/1.5 times average earnings. 3 – In the definition of the European system of integrated social protection (ESSPROS). Public expenditures to promote private and occupational pensions are only covered partly. 4 – In relation to nominal GDP. 5 – For men. In France, entitlement to a full pension exists after (i) 41.25 years of contributions or (ii) by reaching the age of 65 (67 after 2022) when retiring in 2015. The statutory retirement age will rise progressively from 60 to 62 years until 2017. In Germany and the United Kingdom, the statutory retirement age will rise to 67 years. At the moment, the statutory retirement age is 65.4 years in Germany. 6 – Relation of individuals aged 65 and over to those aged between 20 and 64. AT-Austria, CH-Switzerland, DE-Germany, FR-France, NL-Netherlands, SE-Sweden, UK-United Kingdom, US-United States.

Source: OECD

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Occupational pensions form a substantial part of pension provision in these countries. They are either prescribed by law (Switzerland) or negotiated by the social partners in collective bargaining (Sweden and the Netherlands). In addition, **private pensions** are complementarily state-funded. Sweden, however, reduced tax incentives significantly this year. There are other distinct three pillar models, for example, in Australia, Finland, Norway and Denmark and many Central and Eastern European countries.

However, there are still countries that **rely almost exclusively on a PAYG system** reflected in their high pension spending in relation to GDP. [↪ CHART 76 UPPER RIGHT](#) These include France and Austria. However, their retirement provision systems regularly have deficits that have to be met from tax revenues. Because these countries, particularly Austria, are facing unfavourable demographic developments, there are increasing calls for reform (Australian Centre for Financial Studies and Mercer, 2015; Allianz, 2015). [↪ CHART 76 LOWER RIGHT](#) Initial steps have been taken in this direction by increasing retirement age. However, particularly in France, the statutory and actual retirement ages are relatively low. [↪ CHART 76 LOWER LEFT](#)

In English-speaking countries, **fully funded systems** have greater significance. Low basic pensions, such as in the United States, the United Kingdom, Canada and Australia, are typical. These are usually supplemented by fully funded occupational or private forms of pensions. The best-known forms of investment of this type are the 401(k) plans in the **United States**, which are widespread (Hewitt Associates, 2009).

2nd The transition to the three pillar model

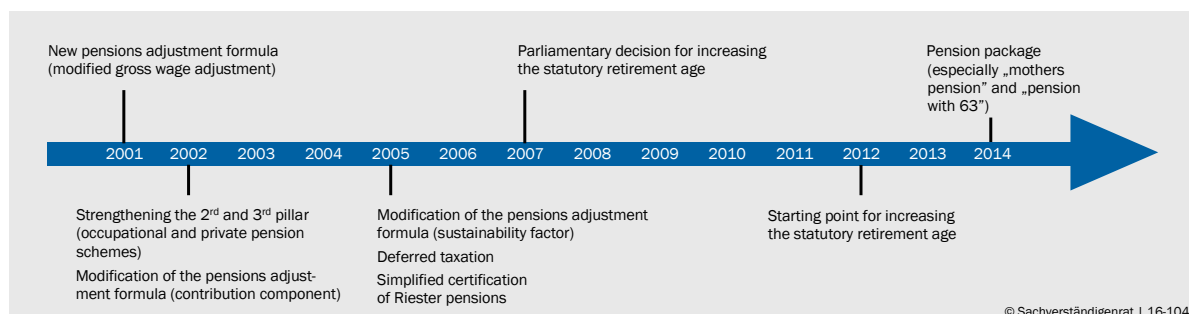
574. The reforms in **Germany** began the abandonment of a pension level-focused policy and limited the rise of the contribution rate to the statutory pension scheme. [↪ CHART 77](#) Without further measures, in an ageing society with fewer contributors to the PAYG system, such a shift of focus to the contribution rate is linked with a reduction in the replacement rate. In fact, the legislator has opted for a combination of an increase in the contribution rate, a reduction of the replacement rate and an increase in the statutory retirement age.

The statutory retirement age has been gradually increasing since 2012 and will reach 67 years in 2029. The decrease in the replacement rate is to be compensated for via additional pension provision. The occupational and private fully funded pensions are therefore complementarily state funded. In addition, deferred taxation of pensions was introduced in 2005. Pension benefits are subject to tax while the contributions made during a person's working life remain tax-free.

575. In addition, at the beginning of the millennium, survivors' pensions were reduced, the statutory retirement age for women was aligned to the five-year higher retirement age for men and pension-increasing education periods were reduced. In contrast, the measures of the pension package from 2014, particularly

[↪ CHART 77](#)

Important changes in pension policy since 2000



the mothers' pension (*Mütterrente*) and pensions from the age of 63 for long-term contributors, imply benefit expansion and are thus headed in the opposite direction (GCEE Annual Report 2014 item 559; Feld et al., 2014; Kallweit and Kohlmeier, 2014). Proposals for a **further expansion of the mothers' pension** are likely to be motivated by election tactics. However, they additionally endanger the financial sustainability of the statutory pension scheme and should therefore be **rejected in principle**.

Statutory pension scheme

576. The **first pillar of retirement provision** in Germany comprises the standard systems in which the members are typically compulsorily included. In addition to the statutory pension scheme for all workers subject to social security contributions, this covers public sector pensions and special systems for certain groups of the self-employed. The most significant element of the first pillar and of pension provision as a whole is the **pay-as-you-go statutory pension scheme**.

Its expenditure is largely covered by contributions and federal subsidies. The federal subsidies are primarily justified by the argument that the statutory pension scheme performs tasks of society as a whole, providing so-called non-insurance benefits (GCEE Annual Report 2005 Table 38). The budget is supposed to be close to balance in every period. Surpluses flow into the sustainability reserve and act as a liquidity buffer for the statutory pension scheme. If the sustainability reserve falls below a predefined threshold, the contribution rate must be increased.

577. A **cap on the contribution rate** and a **floor for the net replacement rate** have been anchored in law in 2004 (section 154 of Volume IV of the German Social Code (SGB IV)). The Federal Government is to propose suitable measures if projections show that (i) the contribution rate will rise above 20 % by 2020 or 22 % by 2030, or (ii) the net replacement rate before tax will fall below 46 % by 2020 or 43 % by 2030.



The **net replacement rate** is the ratio of the standard pension to the average income of contributors. The benefit level of the statutory pension scheme is thus given as a **relative measure**. A contributor who has been an average earner during 45 years of contribution receives the standard pension. Contributions to health and long-term care insurance are deducted from this standard pension, as social security contributions and average expense for additional pension provision are deducted from the average income of contributors. Taxes are not considered in either reference value. A decline in the net replacement rate thus does not indicate lower pension payments, but a lower increase in pensions as compared to wage development.

578. The **gross monthly pension** is calculated at retirement using the pension formula. Thereafter it is updated in accordance with the pension adjustment formula, which was changed several times at the beginning of the 2000s. ↘ [BOX 20](#)

579. As result of a protection clause, nominal pension cuts that arise solely as result of the Riester factor or the sustainability factor have been excluded since 2003. This protection clause was expanded to pension cuts because of falling wages (**benefit level guarantee**) in 2009. A catch-up factor has applied since 2011. When the net replacement rate is not reduced, any shortfall to be compensated will be offset against any positive balance in subsequent years. There is currently no coverage shortfall to be offset. There has also been the “protection clause for the East” since 2004. In accordance with this, the current pension value in the East German Länder must be raised by at least the figure by which the current pension value rises in the West German Länder.

▷ BOX 20

Calculating the pension amount

The individual monthly gross pension is determined using the **pension formula**. The gross monthly pension R_t at time t is calculated by the personal earnings points (EP) being multiplied by the pension type factor (RF), the retirement age factor (ZF) and the current pension value at time t (AR_t):

$$R_t = EP \times RF \times ZF \times AR_t$$

All annually acquired earnings points are added together to calculate the personal **earnings points**. The earnings points acquired per year are calculated by dividing the annual income earned by the individual scheme member by the average earnings of all scheme members in the relevant year. If earned income is equivalent to the average earned income of all scheme members, one earnings point is acquired. Income earned in East Germany is increased using a conversion factor (Feld and Kohlmeier, 2016). Further earnings points can, for example, be acquired through child-rearing periods.

The **pension type factor** indicates whether the pension is an old age, disability or survivors' pension. The **retirement age factor** indicates whether early or late retirement applies. It is 1.0 when the retirement age is the statutory retirement age. It decreases by 0.003 for each month of early retirement and increases by 0.005 for each month after the statutory retirement age. The **current pension value** (AR_t) is equivalent to the monthly pension amount ensuing from one earnings point.

The current pension value has been updated since 2005 using a new **pension adjustment formula**. The adjustment in every July has since been calculated from

- (1) a wage component, which is oriented at the development in the insured persons' income subject to social security contributions,
- (2) a contribution component, which reflects (notional) changes in the burden on contributors, and
- (3) a sustainability factor, which takes account of the ratio of contributors and pensioners and achieves a distribution of the burden between them (GCEE Annual Report 2008 Box 11):

$$AR_t = AR_{t-1} \times \underbrace{\frac{BE_{t-1}}{BE_{t-2}^{adjusted}}}_{\text{wage component}} \times \underbrace{\frac{1 - AVA_{t-1} - RVB_{t-1}}{1 - AVA_{t-2} - RVB_{t-2}}}_{\text{contribution component}} \times \underbrace{\left[1 - \alpha \left(\frac{RQ_{t-1}}{RQ_{t-2}} - 1\right)\right]}_{\text{sustainability factor}}$$

The **wage component** is calculated separately for the West and East German Länder. It reflects the development of gross wages and salaries of the average employee (gross earnings). The average gross earnings of the calendar year before last ($BE_{t-2}^{adjusted}$) are adjusted to better reflect the income development of the actual contributors (GCEE Annual Report 2008 Box 11) This gross earnings-based component has been used since 2001.

The **contribution component** has restricted the increase in the net replacement rate since 2002. In order to reflect the increased burden on contributors, firstly the change in the contribution rate (*RVB*) and secondly a notional private pension scheme contribution percentage (*AVA*) is taken into account. This “Riester factor” was gradually increased to 4 % between 2002 and 2012 in order to reflect the private contribution for the state funded additional pension provision. It is applied irrespective of the actual amount of private pension cover.

The **sustainability factor** was incorporated into the pension adjustment formula in 2005. In the event of an increase in the pensioner/contributor ratio (*RQ*), it has a dampening effect on the net replacement rate. If the number of pensioners increases more than the number of workers subject to social security contributions, pensions are adjusted to a lesser degree. In addition to the demographic trend, the sustainability factor thus captures the labour market situation and retirement age behaviour. Because the pensioner/contributor ratio is determined based on notional “equivalence contributors” and “equivalence pensioners”, the contribution volume, the average wage, the pension volume and the standard pension have an impact. The factor α controls how strongly the sustainability factor influences the pension adjustment, i.e., how the burden is distributed between contributors and pensioners. Since the introduction of the sustainability factor, the factor has been one quarter ($\alpha = 0.25$).

Occupational pension provision

580. Occupational pension provision is the **second pillar of the pension system**. The principle of the occupational pension is that the employers retain part of the salary in order to pay the employees a pension after the end of their working lives. The employer can finance this via provisions during the employee's working life or by investing funds in the capital market. In the former case, the employer can finance its own investments with the retained funds and thus generate the return to finance later pensions.

The **advantage of occupational pensions** is that particularly larger employers can generate a higher return than the individual employee due to economies of scale. In addition, the occupational pension saves employees from having to do their own asset management with the associated costs, for example for acquiring information (Clemens and Förstemann, 2016). Furthermore, the incentive (“nudge”) established for employees to take up an additional private pension is non-negligible.

581. Employers fundamentally determine how they organise the occupational pension. They can opt for internal financing through the employer or external funding through a pension provider. In total, five occupational pension **vehicles** have been authorised since 2002: book reserves (*Direktzusage*), support funds (*Unterstützungskasse*), direct insurance (*Direktversicherung*), pension funds (*Pensionskasse* and *Pensionsfonds*). The selected vehicle has an influence on the treatment regarding tax and social security contributions for the company and the employee, and on the regulation. [↘ CHART 78](#)
582. Since 2002, everyone compulsorily included in the statutory pension scheme has a legal entitlement to set up an occupational pension. However, they have to finance it themselves through **salary conversion** from their gross income. They can forego part of their pay in order to receive a legal right to future pension

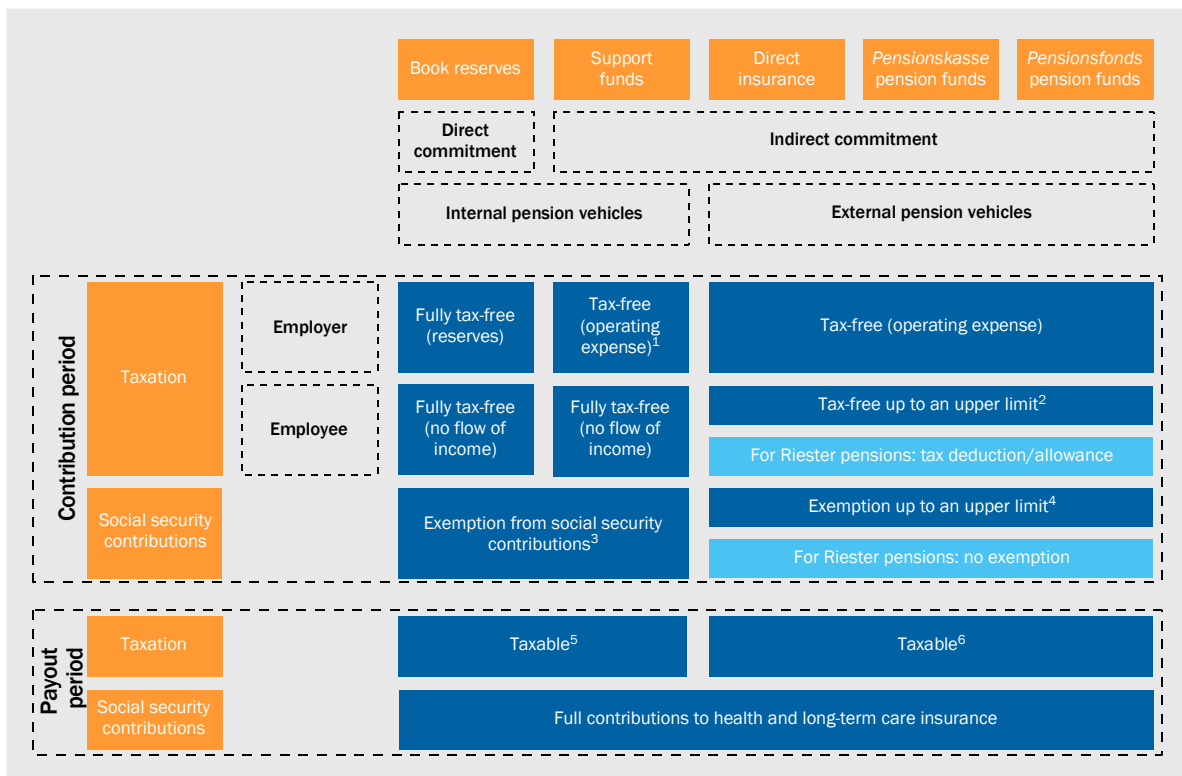
payments of the same value. The government provides incentives by exempting payments up to an upper limit from tax and social security contributions.
 ↘ CHART 78 A key condition for the incentive is that the employer assumes an asset value guarantee.

583. **Deferred taxation** has applied to occupational pensions since 2005. Taxes are not levied on the contributions, but the subsequent pension is taxed (BMF, 2015). At constant tax rates, this deferred taxation is equivalent to immediate taxation with the generated return being tax-free. If the income in the pension period is lower than in the contribution period, there is an additional advantage due to the progressive income tax scale. The individual tax rate is then lower in old age. Because low-income recipients generally pay no or only very low tax, the advantage of deferred taxation is only small for them.

584. In addition, **social security contributions are deferred** for occupational pensions. No social security payments are due during the contribution period. The exemption from social security contributions benefits employers and employees (GCEE Annual Report 2007 items 269 ff.). During the pension period, employees must, by contrast, pay contributions to health and long-term care insurance. This means that no contributions at all are made to the statutory pension scheme or to unemployment insurance, and benefit entitlements from the statutory pension scheme are lower than without an occupational pension.

↘ CHART 78

Occupational pension vehicles



1 – For reinsured support funds fully tax-free, otherwise restricted to fund assets. 2 – 4 % of social security contribution threshold plus €1,800 for contracts concluded after 31.12.2014. 3 – For employers' contributions free of social security contributions as no flow of income, in case of salary conversion according to § 14 para. 1 SGB IV. 4 – 4 % of social security contribution threshold. 5 – As „income from employment“ according to § 19 para. 1 No. 2 EStG, pension allowance according to § 19 para. 2 EStG. 6 – As „other incomes“ according to § 22 No. 5 EStG.

Sources: own presentation according to Clemens and Förstemann (2015) and Kiesewetter et al. (2016)

In addition, the full health and long-term care insurance contribution is to be paid on the occupational pension, not just on the employee part. In the case of the statutory pension, by contrast, the share of the health and long-term care insurance contributions previously borne by the employer is assumed by the statutory pension scheme.

The government incentive for occupational pensions (Riester) [↘ ITEMS 585 FF.](#) can be used via external pension vehicles. The contributions paid are then, however, not exempt from social security contributions. Contributions to long-term care and health insurance are also due in the pension period. Persons with statutory health insurance therefore face **double social security contributions**.

Private pension provision

- 585.** Government-subsidized private pension provision is the **third pillar of retirement provision**. Since 2002, the government subsidizes in particular the **Riester pension** as a supplement to the statutory pension. Although this voluntary additional pension targets people who are affected by the reforms in the statutory pension scheme, i.e., primarily workers subject to social security contributions, other groups of people, for example civil servants, are also entitled to the subsidy. The Riester pension aims at filling the “pension gap”, which arises as result of the decrease in the net replacement rate. [↘ ITEMS 631 FF.](#)

Certified Riester contracts are eligible for complementary state funds if they fulfil certain formal criteria. With effect from 1 January 2015, the rules were eased to make the contracts more attractive. [↘ CHART 77](#) It is central to the certification that the contracts provide for a monthly pension payment and are not paid out until retirement age. At the start of the pension period, a minimum of the contributions and the allowances must be guaranteed.

- 586.** The **minimum own contribution** for the full subsidy is equal to the private pension scheme contribution percentage in the pension adjustment formula [↘ BOX 20](#) and has been 4 % of the previous year's income, but not more than €2,100 since 2008. The incentive consists of a fixed basic allowance and supplementary child allowances or, if assessed to be more favourable, of an additional tax deduction of special expenses. The allowances are counted towards the minimum own contribution. In addition, a minimum amount of at least €60 per year is intended to guarantee that own payments are made even in the case of low income.

Low earners barely benefit from tax deductions or low personal income tax rates. For them, the **allowance model** thus creates stronger incentives to conclude a contract. For people with low incomes and families with children, the ratio of the government subsidy to the contribution amount (incentive ratio) is very high. For single people without children, incentive ratios of up to 70 % exist in 2015, for married low earners with two children, of over 90 % (Börsch-Supan et al., 2016).

587. The **basic pension** (known as the “Rürup pension”) for people who do not receive the Riester subsidy aims at the self-employed and freelance members of the liberal professions. Private pensions are encouraged here through tax exemption in the contribution period if these are certified contracts. They must guarantee a lifelong pension payment and cannot be inherited or transferred.
588. Both types of government-subsidized private pension are subject to **deferred taxation** like occupational pensions. Unlike the occupational pension, however, **social security contributions are immediately payable**. Contributions to Riester contracts come from income on which social security contributions have already been paid. Pension benefits are exempt from social security contributions.
589. However, **private pension provision** is not just limited to the Riester or Rürup pensions. In fact, retirement provision has always been made, for example, through taking out life insurance policies or buying real estate. While for life insurance policies taken out before 2005, taxes were mostly charged on the income portion only, this has applied with stronger restrictions since then. Finally, there were changes in the government subsidies for home ownership; owner-occupied homes obtained a homeowners’ subsidy until 2006. As a substitute for this abolished subsidy, there has been the option of funding properties directly with Riester pensions (“housing Riester”) since 2008.

III. REFORMS IN THREE PILLARS NEEDED

590. The pension policy discussions initiated this year aimed at least partially at reversing the reforms implemented since the 2000s. This would change the current form of the three-pillar model in retirement provision in favour of a **renewed strengthening of the first pillar**. From the German Council of Economic Experts' point of view, this would **not be useful**.

1. Statutory pension scheme

Current financial situation relaxed

591. The **financial situation of the statutory pension scheme** appears to be robust. The statutory pension scheme has realized surpluses since 2006 leading to a reduction in the contribution rate from 19.9 % in 2007 to a current 18.7 %. It is thus 1.6 percentage points below its highest level in 1998. A further reduction to the contribution rate would have been possible without the watering down of the reforms through the mother's pension and pensions from the age of 63 for long-term contributors that came into force on 1 July 2014 (GCEE Annual Report 2014 item 562). The favourable financial situation is due to a well-performing labour market and a lower number of people retiring in the short term because the generations retiring between 2007 and 2018 are the smaller

war and post-war age cohorts. In addition, the reforms agreed by 2007 are showing their impact.

592. Nevertheless, the statutory pension scheme's funding is not permanently secured. This is shown by an updated sustainability analysis by the German Council of Economic Experts, with which the long-term financial feasibility of the statutory pension scheme can be assessed (Werding, 2016). Details on the approach and assumptions made can be found in [↘ BOX 24](#). The projection period previously used (GCEE Annual Report 2014 items 570 ff.) was expanded by 20 years up to 2080 in this update. This results in a **sustainability gap** of 4.2 %. It states what percentage of GDP the country as a whole would have to “save” annually through higher revenues or lower spending so that all debt will be repaid in the long term. The sustainability gap shows that government budgets are still not sustainable and there is a clear need to act.



Because of the extension of the projection period, the results are not directly comparable with earlier publications. In the assessment of the sustainability gap it is assumed by definition that a balanced situation will be achieved at the end of the projection period. From today's perspective, this is not realistic by 2060. For example, increased refugee migration (Aretz et al., 2016) and particularly a baby boomer echo effect through their children influence the areas of spending sensitive to demographics between 2060 and 2080. The demographic problems will thus continue to affect Germany after 2060. Calculations projecting sustainability until 2060 thus underestimate the sustainability gap. If the projection period is extended in order to gain a more realistic impression of the need for action, the sustainability gap increases accordingly.

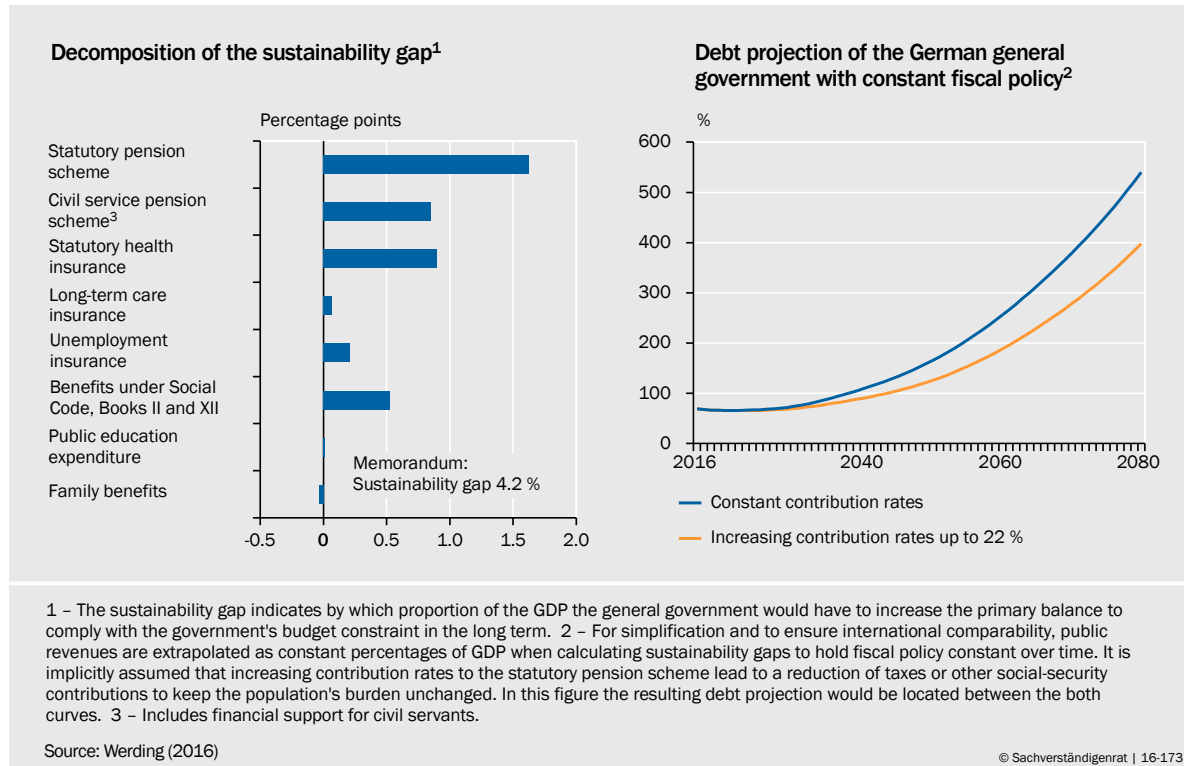
593. In addition to the sustainability gap, the corresponding **debt projection** until 2080 shows the existing need for action. This is not to be understood as a forecast, but only indicates how government debt would develop depending on demographic change under certain assumptions if policymakers did not change anything about the current legal situation. [↘ ITEM 698](#) Under the unrealistic assumption that today's tax and contribution rates will remain constant, there would be a debt ratio of 540 % in 2080. [↘ CHART 79 RIGHT](#) Under the similarly unrealistic assumption that the contribution rate to the statutory pension scheme would rise to up to 22 %, the upper limit until 2030 provided for in SGB IV, and the assumption that all other social security contribution rates and the tax-to-GDP ratio remained unchanged, there would still be a debt ratio of close to 400 % in 2080 [↘ CHART 79 RIGHT](#)

Both scenarios represent purely hypothetical situations. However, the figures show that there is a need to act in order to prevent too sharp a rise in the debt ratio. Nevertheless, the problems are not likely to intensify until around 2030. But it would be wrong to conclude that there is currently no need to act.

594. A **decomposition of the sustainability gap** shows that it has arisen primarily due to the statutory pension scheme, statutory health insurance and the civil service pension scheme. [↘ CHART 79 LEFT](#) At 1.6 percentage points, the statutory pension scheme is the largest contributory factor to the sustainability gap (Werding, 2016). Thus, the previous reforms in the statutory pension scheme are

↘ CHART 79

Need for action in the statutory pension scheme



not sufficient to ensure sustainable funding without increases in the contribution rate.

595. The projection of the statutory pension scheme expenditure needed as part of the sustainability analysis provides for a starting point of an in-depth analysis. For example, the contribution rates that would be needed to balance the statutory pension scheme's budget at a given net replacement rate and given federal subsidies can be simulated. The pension level and federal subsidies are extrapolated in the baseline scenario in accordance with the applicable legal situation. By 2080, the contribution rates to the statutory pension scheme would have to rise to 24.3 % for a net replacement rate of 41.3 % in order for pension spending projected for the sustainability analysis to be covered by contribution revenues.

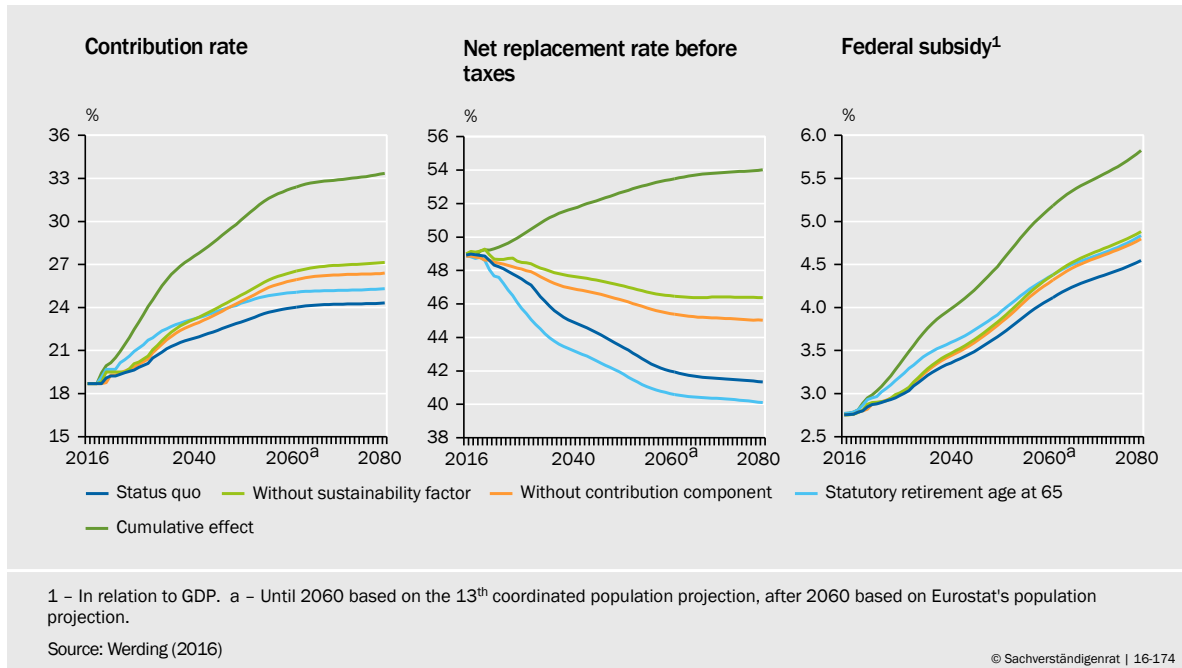
↘ CHART 80

This is a **problematic rise** in view of the already high total social security contribution burden for employees today and the rising contribution rates expected in other areas of social security (Werding, 2016). More financing via federal subsidies would also be borne by future generations via higher government debt or tax increases.

596. This analysis shows that the previous **reforms** in the statutory pension scheme were an **important step in the right direction** in order to render the statutory pension scheme and thus public finances sustainable. In the event of a hypothetical reversal of the reforms through abolition of the sustainability factor or the contribution rate factor or by cutting the pension age to 65, in each case from 2016, significantly higher contribution rates would be needed to finance pension

↘ CHART 80

Contribution rates, net replacement rates and federal subsidies without reforms



spending. ↘ CHART 80 It can thus be seen that each of the three reform measures made a key contribution to improving sustainability.

597. With the increase in retirement age to 67, the burden on today's contributors has already been reduced and they thus have more leeway to save for additional private pensions. Without the sustainability factor or the contribution component, although the net replacement rate would not fall as much as allowed for under current legislation, this would be associated with higher contribution rates and federal subsidies. In this respect, **the need for action now would be significantly higher and more acute without the past reforms**. If all the reform elements were simultaneously reversed, the contribution rate in 2080 would be over 33.4 % with a net replacement rate of 54.0 %. ↘ CHART 80

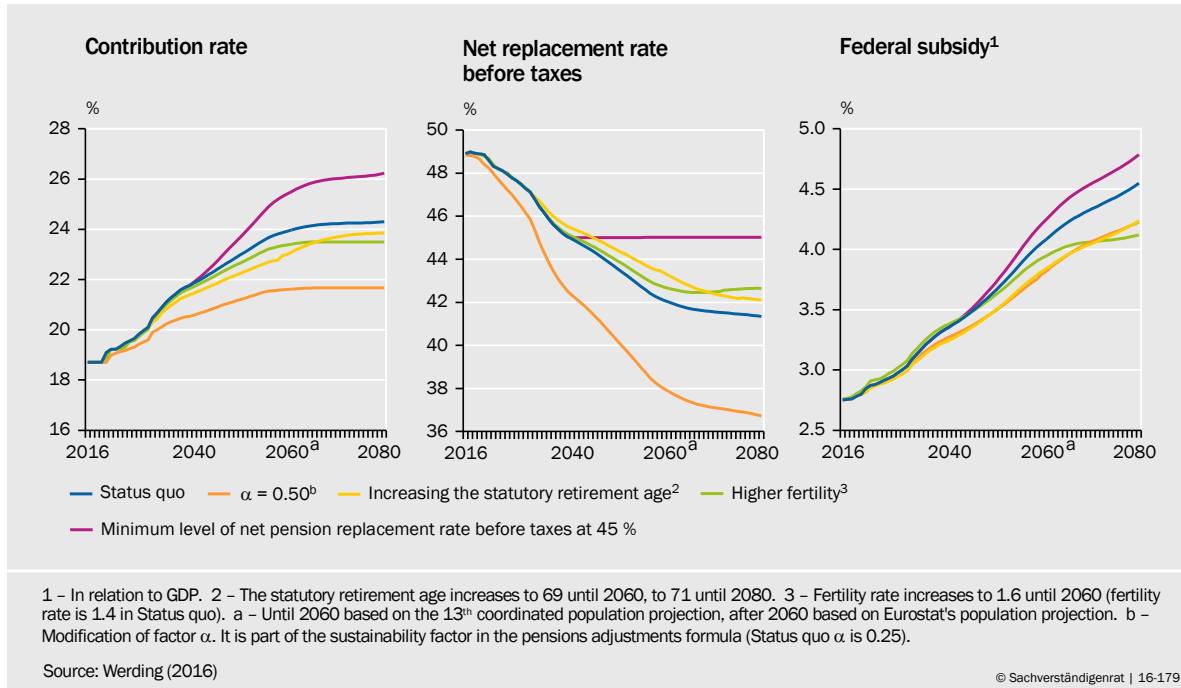
Continuing need for action with respect to sustainability

598. Three options are theoretically conceivable to ensure financing of the statutory pension scheme in the long term with more moderate increases in the contribution rate than currently expected: an even greater reduction in the net replacement rate, an increase in the fertility rate or an increase in retirement age.

Because lowering the net replacement rate before tax to 43 % in 2030 (the lower limit currently provided for by law) is already seen by many as highly problematic, a further reduction in the net replacement rate is not a realistic option. It could theoretically be implemented through an increase in the α factor in the **sustainability factor** of the pension adjustment formula. ↘ BOX 20 Already a doubling of α to 0.5 % would lead to a significantly greater reduction in the net replacement rate than in the baseline scenario (36.7 % in 2080) and would correspondingly shift the burden further to pensioners while shifting it away from

↘ CHART 81

Contribution rates, net replacement rates and federal subsidies - different reforms



contributors. The contribution rates to the statutory pension scheme still would have to rise to 21.7 % in 2080. ↘ CHART 81

Looking ahead, a higher **fertility rate** would have a positive effect on pension finances from around 2045 onwards. The net replacement rate would decrease to 42.6 %, the contribution rate would increase to 23.5 %. ↘ CHART 81 But not only is wanting children first and foremost a private affair (GCEE Annual Report 2013 item 758), it is also questionable whether a significant increase in the fertility rate could be brought about through state interventions at all. The task of family policy is primarily to create favourable conditions for a life with children.

599. A further **increase in the retirement age** beyond 2029 would, by contrast, definitely have a positive impact on the financing of the statutory pension scheme. In 2080, this would result in a net replacement rate of 42.1 % and a contribution rate of 23.9 %. ↘ CHART 81 It is therefore **inevitable from the point of view of the German Council of Economic Experts**. It should ideally be coupled with the development of further life expectancy at age 65, as the German Council of Economic Experts, among others, has already suggested in its expertise in 2011. This would be appropriate as increasing numbers of years are spent in good health.

By coupling it to the development of further life expectancy, the relative period in which a pension is received would remain constant in the long term despite rising (further) life expectancy. Correspondingly, all rules linked to the statutory retirement age should be adjusted accordingly. For example, the non-contributory supplementary period would also have to be increased when calculating the level of the reduced earnings capacity benefits if there is another increase in the statutory retirement age.

600. In the simulations, an increase in the statutory retirement age of one month per year is made beyond 2029. By 2060, this would lead to a **retirement age of 69**. By 2080, the retirement age would be 71 years with a life expectancy at birth rising further by then to 87.7 for men and 91.3 for women (Werding, 2016). This statutory retirement age would apply to people born in or after 2009. The simulated contribution rates and net replacement rates would thus develop in a less critical way than under applicable law at least until 2060. [↪ CHART 81](#) In subsequent years, the dampening effect of the increase in the retirement age on the contribution rate will lessen, among other things due to increasing pension entitlements.
601. Setting a new **lower limit for the net replacement rate** (currently 46 % until 2020 and 43 % until 2030) of, for example, 45 % would, by contrast, further increase the statutory pension scheme's sustainability problems. In such a scenario, the contribution rates would have to rise significantly faster than allowed for under current legislation from 2040 onwards to reach 26.2 % in 2080. [↪ CHART 81](#)

When interpreting the net replacement rate, it should be borne in mind that this is based on the standard pensioner with 45 years of contributions and average earnings. [↪ ITEM 560](#) However, this means the envisaged **increase in the statutory retirement age to 67** is not taken into account when looking at the net replacement rate. The official figure for the net replacement rate thus underestimates the development of its actual level. Calculations that adjust the definition of the **net replacement rate** to the applicable legal situation conclude that this would be **around 4 % to 8 % higher** (Bachmann et al., 2013). Accordingly, this is even more strongly the case in the scenario with a further increase in the retirement age. Therefore, the number of contribution years would have to be further adjusted in the definition of the standard pensioner.

602. For various reasons, currently primarily in order to prevent the reduction of the net replacement rate to the lower limit allowed for by law, **expanding the contributor base of the statutory pension scheme** has been repeatedly discussed for years. It is argued that as a result of a broader group of people who have to pay into the statutory pension scheme in the coming years, considerably more contributors could finance the pensions of the same number of pensioners. In this manner, according to this argumentation, the contribution rate could fall while at the same time the net replacement rate could be significantly increased.

In addition to this argument, it is frequently pointed out that the contributions to the statutory pension scheme will in future have the character of a tax for more and more of those covered by it, specifically for those who would need old-age basic income support due to the falling net replacement rate and a lack of additional pension provision. This is felt to be unfair in comparison to those not compulsorily included in the statutory pension scheme. These people – frequently not compulsorily insured self-employed – who do not have private pensions, are also entitled to the old-age basic income support despite not making payments into the system during their working lives. If this is consciously accepted, it can lead to **free-riding**.

603. Expanding the contributor base to include the self-employed is nothing but a redistribution from those without pension cover to those currently included in the statutory pension scheme (GCEE Annual Report 2006 item 358 Box 17). This would not only benefit those who may be affected by old-age poverty, but all members of the statutory pension scheme, including those with very high pensions. However, in the long term it neither contributes to the solution of the statutory pension scheme's sustainability problem, nor is it expected to result in significant savings in the area of the old-age basic income support. [↪ BOX 21](#) In fact, particularly the pensioners who are likely to receive the highest returns from the statutory pension scheme in the future would be in a better position (Werding, 2016). [↪ CHART 88](#)

Nevertheless, **compulsory pension cover would make sense for the self-employed without obligatory cover**, in order to avoid possible free-riding. However, whether this pension provision takes place as part of the statutory pension scheme or another compulsory private pension is irrelevant for the old-age basic income support (GCEE Annual Report 2011 item 531).

[↪ BOX 21](#)

Effects of expanding the contributor base

The main advantage of expanding the contributor base to include the self-employed would be that they would have to make pension provision for their old age. It would thus no longer be possible for them to be reliant on the old-age basic income support due to negligence or **free-riding**. This could result in less spending on basic income support for the government.

In 2012, although people who stated that their last job was in self-employment achieved a higher average net total income than those who had previously worked for an employer, they were approximately twice as likely to be reliant on the old-age basic income support (Bundesregierung, 2012). A share of 3.7 % of those previously in self-employment received this benefit compare to only 1.8 % of those who previously worked for an employer. According to the Retirement Provision Report (*Alterssicherungsbericht*) 2012, 20 % of the recipients of old-age basic income support were self-employed before retiring. However, there is no data on employment history. The group comprising the self-employed is also very diverse. A majority of all those who were self-employed immediately before the age of 65 – about three quarters of them – additionally receive pension benefits from the statutory pension scheme, meaning that it is to be assumed that the formerly self-employed were only self-employed for (in some cases a small) part of their working lives.

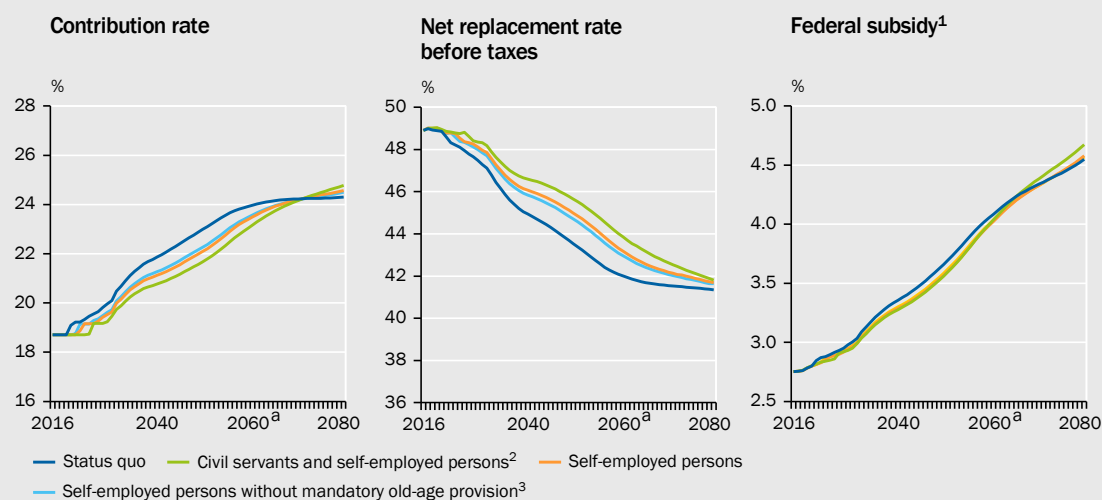
The possible **savings in the spending on the old-age basic income support** can be calculated approximately; in December 2015, around 540,000 pensioners received old-age basic income support. As a result of income deducted from the minimum pension, the monthly net requirement for these recipients was an average of €410. This results in spending for basic income support for people above the age limit of around €2.7 billion. Assuming that the proportion of the costs caused by those previously self-employed is as high (twice as high/three times as high) as the proportion of the self-employed in the labour force in 2012 (11 %), this would result in spending for the self-employed of €0.3 billion (€0.6 billion/€0.9 billion). Even if a large proportion of this spending ceased if this group was compelled to have pension provision, the saving potential as a result of such an obligation would thus be negligible. In addition, this saving potential would also be achievable with an obligatory private pension.

There are theoretically **three options** for expanding the contributor base of the statutory pension scheme: including (1) all self-employed people and civil servants, (2) all self-employed people and (3) only self-employed people without compulsory pension provision. Another aspect to consider is whether there should or must be a **grandfathering regime** and the contributor base will thus only be expanded to people who newly achieve the relevant status. Grandfathering is appropriate; in 2013, approximately 20 % of the self-employed were already compulsorily included in the statutory pension scheme, enrolled in pension schemes for professional groups or the Agricultural Pension Fund. The pension schemes for professional groups are based in part on pay-as-you-go elements and are therefore reliant on the contributions of future scheme members. Even including only the future self-employed in the statutory pension scheme could therefore lead to financing problems for these pension schemes. The remaining individuals may have other pension contracts that cannot simply be cancelled. For civil servants, larger provisions are created for future pensions.

The most radical approach would be **compulsory pension provision for all self-employed people and civil servants** which, if there is grandfathering in the period under review, would result in a significantly higher net replacement rate and lower simulated contribution rates than without expansion. [↘ CHART 82](#) It can be seen even in this scenario that the improvement is not permanent. Towards the end of the period under review the net replacement rate is in the same range as in the base scenario (41.8 %). The contribution rate (24.8 %) would be even higher than without expanding the contributor base because the additional members would receive entitlements that would later have to be financed from fewer contributors.

[↘ CHART 82](#)

Contribution rates and net replacement rates when expanding the contributor base



1 - In relation to GDP. 2 - New civil servants and new self-employed persons are included in the projection. 3 - New self-employed persons, who are not already compulsory enrolled in a pension scheme, are included in the projection. a - Until 2060 based on the 13th coordinated population projection, after 2060 based on Eurostat's population projection.

Source: Werding (2016)

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The root cause of the **statutory pension scheme's sustainability problem** is demographic change. In the future, fewer contributors will have to pay for more pensioners. Expanding the contributor base does not change that. This will only partially shift the problem of rising deficits to the future. Expanding the contributor base of the statutory pension scheme does not improve its sustainability.

Including civil servants could result in a positive effect for public finances because no sustainability factor is included in the public sector workers' current pension system. The level of the pensions is also determined by final salary. As a result, these pensions are generally higher than statutory pension scheme pensions. It should, however, be borne in mind that the earnings of civil servants are below the gross salaries paid for other government employees or for comparable functions in the pri-

vate sector. These retained hidden deductions among active civil servants and therefore implied contributions are not paid into any pension fund (GCEE Annual Report 2001 item 257). Including civil servants in the statutory pension scheme would thus have to be accompanied by salary increases, which would in turn have a negative impact on public finances. Finally, including civil servants in the statutory pension scheme would require a **complete reorganisation of the civil servants system**, which is **unrealistic**.

If, as a second approach, only self-employed people are included in the projection, the effect would be lower than if including civil servants as well. ↘ [CHART 82](#) The realistic option would be **only** to include **new self-employed people** in the statutory pension scheme, who are **not already compulsorily enrolled in a pension scheme now**. The persons who are not compulsorily covered by pensions are likely to include numerous self-employed with relatively low incomes. If, as a third approach, only those previously not compulsorily enrolled in a pension are included in the statutory pension scheme, this results in the smallest effect on the contribution rate and the net replacement rate. In 2080, the contribution rate would be 24.5 %, the net replacement rate 41.6 %. In particular, in the long term, very little difference from the base scenario can be found. ↘ [CHART 82](#) In this scenario the sustainability gap of 4.6 % of GDP would, however, be larger than in the base scenario (4.2 %). It would fall to 3.1 % of GDP in the scenario with an increased retirement age.

Facilitating flexible retirement

604. In addition to increasing the retirement age, **more flexible retirement** may serve to harness the potential of older employees. However, the current rules on partial pensions, which provide for a combination of income from work and pension income, have noticeable weaknesses. The rules on additional earnings for the partial pension, which can currently be taken as a one-third, half or two-thirds partial pension, are so rigid that there has been very little take-up of partial pensions to date (Gasche and Krolage, 2012).

In addition, taking later retirement is more difficult due to (i) most employment contracts expiring on reaching retirement age and (ii) the employer having to pay its share of the contribution to unemployment insurance and the statutory pension scheme. This is problematic in that, by definition, an employee can no longer become unemployed after reaching the statutory retirement age and no further entitlements accrue from the pension scheme contribution.

605. On 21 October 2016, the German Federal Parliament passed the **flexi-pension act** (*Flexi-Rentengesetz*). This is intended to make working beyond the statutory retirement age easier in future. To this end, the employer contribution to unemployment insurance will no longer apply and contributions to the statutory pension scheme by the employee and the employer will result in additional pension entitlement. The Federal Government is thus sending a positive signal to all employers and employees affected that working beyond the statutory retirement age is desirable.

In addition, the rigid rules on additional earnings within the framework of the **partial pension** will be abolished. In future, as currently, €450 can be made in additional earnings without any consequences for the pension payment, 40 % of amounts exceeding this level will be offset against the pension payment.

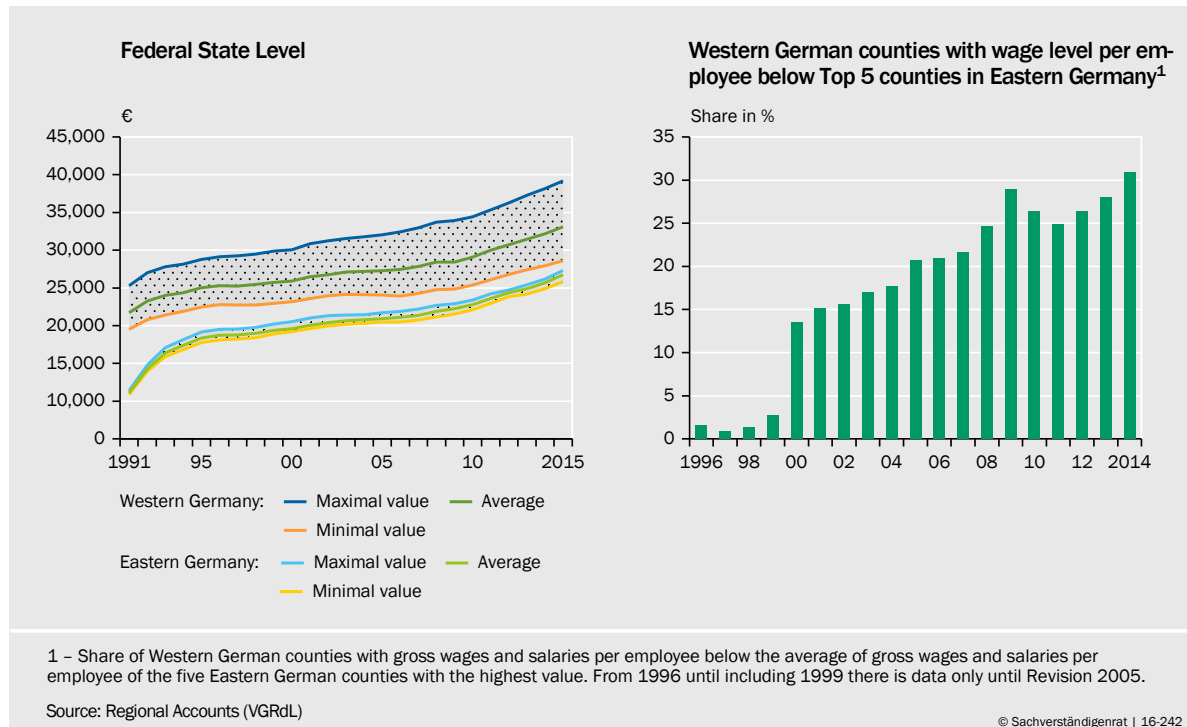
Harmonising pension law

606. In addition to the long-term financial stabilisation of the statutory pension scheme, the harmonisation of pension law is also on the political agenda. The coalition agreement provides for full alignment of the current pension values in East and West Germany by the end of 2019. To this end, the Federal Ministry of Labour and Social Affairs presented a draft bill in July 2016 (*Entwurf eines Gesetzes über den Abschluss der Rentenüberleitung*, as at 19 July 2016).
607. The pensions in East and West Germany are still calculated differently. For example, there are **special rules in East Germany**, including for the calculation and adjustment of pensions (Feld and Kohlmeier, 2016). This is due to the fact that the basic expectation of the Unification Treaty (*Einigungsvertrag*) of 31 August 1990 and the Pension Transition Act (*Rentenüberleitungsgesetz*) of 25 July 1991, i.e., a rapid increase in wages in East Germany to match the West German level, has still not been met.
608. The following are arguments in favour of rapidly harmonising the law:
- The **aim of contribution equivalence is currently being violated** because East German statutory pension scheme members will acquire a higher pension entitlement for the same contributions.
 - Over 25 years after German unification, the **income differences** in West and East Germany are presumably **structural**, just as there are prosperous regions with high pay levels and regions with structural problems and correspondingly low pay levels within West Germany without leading to different treatment in the pension calculation. ↘ CHART 83
 - Currently, certain pension-increasing circumstances, for example child-raising periods, are valued differently in West and East Germany.
609. In 2008, the German Council of Economic Experts put a proposal for harmonising pension law forward for discussion (GCEE Annual Report 2008 items 624 ff.). Unlike the proposal by the Federal Ministry of Labour and Social Affairs, which provides for raising the East German basis for calculation to the West German level, the German Council of Economic Experts prefers a **rebasings of the parameters relevant for the calculation of the amount of pension benefits to figures for Germany as a whole in a way that preserves vested rights**. The proposal by the German Council of Economic Experts would be unobjectionable in terms of constitutional law, and neutral in terms of distribution and cost at the date of rebasing. The draft bill, by contrast, would benefit existing East German pensioners. As a result, the necessary funding would need to be secured.

After the date of rebasing, distribution effects will arise depending on the respective wage trends in West and East Germany, as is the case with all the other proposals for rebasing that preserve vested rights (Börsch-Supan et al., 2010, Feld and Kohlmeier, 2016).

▸ CHART 83

Gross wages and salaries per employee



610. In concrete terms, according to the proposal by the German Council of Economic Experts, **the annually acquired earnings points** of the statutory pension scheme members would be calculated in accordance with a uniform procedure **on the basis of average earnings for the whole of Germany** from the changeover date. There would also only be one current pension value – for the whole of Germany – with which the acquired earnings points would be valued. The current pension value would be updated in accordance with the pension formula, which would then be based on the wage trend for the whole of Germany.

At the changeover date, the **pension payment amount** for all existing pensioners in East and West Germany would remain **unchanged**. In the case of the existing West German pensioners, the number of earnings points collected would have to be corrected upwards once only when valuing their cumulative earnings points with the new, lower current pension value for the whole of Germany. In the case of the existing East German pensioners, the correction would conversely lead to the earnings points being lower than before. However, these will be valued at the current pension value for the whole of Germany, which is higher than the current pension value for the east.

611. The rebasing of the parameters relevant for the calculation of the amount of pension benefits proposed by the German Council of Economic Experts requires political courage because this may lead to misunderstandings in public debates as the new **current pension value** for the whole of Germany is **lower** than the current pension value (for West Germany). This is, however, completely compensated for by a corresponding correction of earnings points, meaning that pensioners and pension scheme members in neither part of the country are worse off at the changeover date. In addition, the decision needs to be made

without the actual wage trend and thus the future distribution effects being known.

The **advantage of the proposal** is that no additional funds are necessary that would additionally threaten the sustainability of social security. For example, raising the East German level to the West German level in accordance with the draft bill would require funding of around €8 billion until 2020 alone.

612. Without a rapid harmonisation of the law, the fundamental principle of contribution equivalence would be further violated and pension-increasing circumstances would continue to be treated differently. All these aspects are to be weighed up when making a decision. The result will possibly then be – as in the Social Advisory Council (2015) – that it would be more prudent to **keep the current rules** and the associated shortcomings (for the time being) instead of carrying out an expensive harmonisation of the law.
613. In this case, looking ahead, a further convergence of parameters relevant for the calculation of the amount of pension benefits would occur, at least in the event of wage convergence. It is unrealistic to expect this to happen by 2020 when the Solidarity Pact ends, however, even if the convergence process continues with the same momentum as in recent years. Even before the convergence of wages, the current pension value (for the east) will reach the level of the value for the west due to the protection clause.
614. A **uniform pension law** should be introduced by then at the latest. It should be self-evident that there will then only be one current pension value in West and East Germany, which will then be updated in line with the wage trend in Germany as a whole. This should be used as an opportunity to also unify the earnings point calculation by ending the higher valuation of East German wages and salaries and basing the calculation on values for the whole of Germany. Due to further convergence of the earnings in West and East Germany in this case, the **distribution effects resulting** for members of the statutory pension scheme are **smaller**, and less political courage will be needed to harmonise pension law.

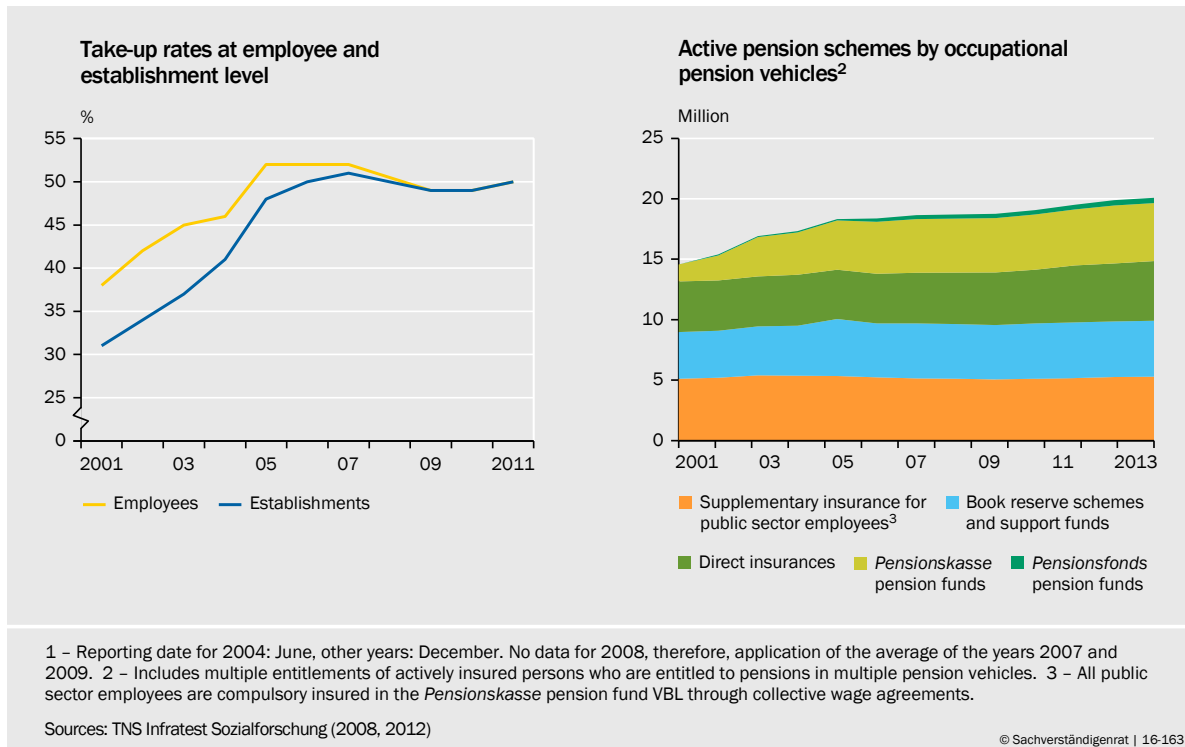
2. Occupational pensions

Take-up of occupational pensions could be improved

615. The **take-up of occupational pensions** has **increased** since the reform of 2001. While only 38 % of employees saved into an occupational pension at that time, it was already 50 % in 2011 (TNS Infratest Sozialforschung, 2012). Take-up has been levelling off since 2005. ↘ [CHART 84 LEFT](#) This raises the question as to whether there is a further need for action.
616. Aggregate take-up rates do not paint a clear picture for various reasons. Firstly, the take-up level correlates positively with the size of the business as well as the income and age of the employee (Kiesewetter et al., 2016; Beznoska and Pim-

↘ CHART 84

Take-up of occupational pensions¹



pertz, 2016). There could accordingly be a **need for action** particularly in the case of **small and medium-sized enterprises (SMEs)** and **low earners**. For one thing, the increase in take-up with age is likely to be related to income, which also rises with age, or to point to a cohort effect. For another, the propensity to save is lower among younger workers, whether this is due to a higher time preference or due to financing home ownership. There is therefore no direct need for action by the government in this regards.

617. Secondly, there are various definitions of take-up levels with differences in development over time and level. For example, when measured at employee level, the stagnation of take-up began as early as 2005, but when measured at establishment level, it did not begin until 2007. In addition, the level of take-up at **household level** is on average 10 percentage points higher than when measured at the individual level (Beznoska and Pimpertz, 2016). In contrast to information from the provider survey ↘ CHART 84 LEFT, representative survey data shows a lower level of take-up. This could be because some of those surveyed are not aware of the existence of a contract (Beznoska and Pimpertz, 2016). However, the increase can also be seen in this data. In 2002, 13 % of households stated that they had an occupational pension. In 2012 it was 30 % (Börsch-Supan et al., 2016b).

A continuous increase can be seen in the number of people **enrolled in an occupational pension scheme**. The number of active pension scheme members rose by 38 % in the period from 2001 to 2013. ↘ CHART 84 RIGHT It is apparent that book reserve schemes and direct insurance have accounted for the largest share of occupational pension contracts in the past few years. The significance of the

Pensionskasse pension fund has sharply increased. *Pensionsfonds* pension funds continue to play a lesser role.

618. Thirdly, looking only at occupational pension coverage allows conclusions regarding neither the level of the contributions to occupational pensions or pensions as a whole nor the level of **retirement income**. There is no reliable data, at least for today's labour force. What is known, is the level of retirement income of today's pensioners. Of the 43 % of male recipients of old age pensions from occupational pension schemes, for example, 70 % have such a pension of less than €500. The total retirement income is, however, unknown, particularly for couples, and appears to be sufficient given the currently low proportion of recipients of old-age basic income support. ↘ ITEM 562 A normative evaluation of the level of take-up is therefore difficult (TNS Infratest Sozialforschung, 2011).

Need for action remains

619. Nevertheless, there is potential for improvement in the occupational pension rules. For example, there is a lower level of coverage among low earners and SMEs. This suggests that it would be advisable to analyse the **obstacles** to an employee taking out an occupational pension and to the employer offering a form of pension (Kiesewetter et al., 2016).

On the employee side, lack of knowledge of their salary conversion entitlement and lack of financial leeway are seen as the greatest impediments to **taking out an occupational pension**. However, 70 % of employees who have refused an offer by their employer state that they have private pension provision elsewhere. In particular, the Riester pension and life insurance are used here. In addition, 40 % of employees who reject an employer's offer consider that they have sufficient cover. Neither is likely to be true of low earners. On the employer side, particularly at SMEs, the high cost of obtaining information and the administrative expense are likely to represent the primary obstacle to offering an occupational pension (Kiesewetter et al., 2016).

620. The Federal Government and the wage-negotiating parties agreed to key points to increase the take-up of occupational pensions at the end of September 2016. To date, it is known that these include eliminating the double social security contribution involved when choosing a Riester pension as part of an occupational pension, and a tax incentive of 30 % for employers paying up to €480 into an occupational pension scheme for low-earners. In addition, it is likely that employee contributions of 7 % of the social security contribution threshold (*Beitragsbemessungsgrenze*) will be able to be paid tax-free into an occupation pension.
621. This tax exemption represents a further step towards consumption-oriented taxation. As the German Council of Economic Experts has repeatedly stated, mostly recently with respect to corporate taxation (GCEE Annual Report 2015 items 725 ff.), this would be welcome in terms of efficiency. An increase in the amount that can be contributed tax-free into an occupational pension would also be logical considering that an increase in savings is necessary during a long period of low

interest rates, in order to maintain the same pension level. However, it would be consistent in that case, to treat the Riester pension in the same way and increase the allowance accordingly. Moreover, an increase in the private pension scheme contribution percentage in the pension adjustment formula [↘ BOX 20](#) and the consequences thereof (primarily a larger decline in the net replacement rate than previously expected) should be considered. Increasing this percentage in the context of the occupational pension system only would deliberately favour the occupational pension, which needs additional justification

It is likely that more people who benefit from the tax incentive will rely on an occupational pension, possibly instead of a Riester pension. The contributions and thus the anticipated occupational pension payments could be expected to rise. Free rider effects would also be likely. There are already employees that pay more than 4 % of the assessment ceiling into their occupational pension schemes.

622. For low earners, an occupational pension is likely to become more attractive with an **allowance incentive**. The planned abolition of the double contribution for a Riester pension within the occupational pension system creates an opportunity for an allowance incentive within occupational pension provision. This corrects for the misaligned incentives that arise for a Riester pension within the occupational pension system due to the additional burden in comparison to private Riester pensions. [↘ ITEM 584](#) The problem of double social security contributions for an occupational Riester pension is reflected in the very low number of people saving into an occupational Riester pension. The proportion of pensions with the Riester incentive varied in December 2013, depending on the private sector pension vehicle, between 0.1 % for direct insurance and 3 % for *Pension-skasse* pension funds (TNS Infratest Sozialforschung, 2015).
623. It is unclear whether employers who have not offered an occupational pension so far (particularly SMEs) will be moved to offer one through tax incentives. At least, SME employers with occupational pension provision in particular state that monetary incentives would not be decisive for them. In order to reduce the high cost of obtaining information and the administrative expense, it should instead be made much easier for employers to offer their employees appropriate occupational pension products.

Various options are available for this. For instance, associations, guilds and chambers could be encouraged to **give** their members more **information** about the occupational pension system and make a **preliminary selection** of occupational pension products available. It would be even simpler for the employers if the wage-negotiating parties offered standardised products. If a standardised product were created as part of the Riester pension, this could also be used by SMEs for salary conversion (Börsch-Supan et al., 2016b).

624. In addition to previously discussed changes, the Federal Government also wants to allow occupational pensions without guaranteed benefits if this is agreed within collective wage contracts. In addition, employees are in this case to be **automatically enrolled** unless they opt out (default nudging). So far, a benefit of at least the amount of the contributions paid in must be guaranteed. The Fed-

eral Government sees the **liability risk** for SMEs especially as a considerable obstacle to take-up. However, a fully funded pension product without benefit guarantee may not be well received among people taking out pensions who prefer conservative investment strategies.

625. Privileging occupational pensions, particularly compared to Riester contracts, can at most be justified in view of the aforementioned problems with this type of nudging argument. Automatic enrolment in an occupational pension scheme with an opt-out rule may strengthen private pension provision. From the perspective of the German Council of Economic Experts, however, this intervention is far-reaching when it might already be enough to reduce the costs of obtaining information for employers (Board of Academic Advisors to the BMWi, 2016). Just an opt-out rule could be problematic if the employer did not offer worthwhile products due to lack of knowledge. [↪ BOX 22](#)

[↪ BOX 22](#)

Opt-out and standard products

In the course of the pension reform discussion this year, the introduction of a so-called **Germany pension** (*Deutschland-Rente*) was suggested (Al-Wazir et al., 2016; Wagner, 2016). This is a fully funded additional pension in which the employer transfers contributions to a government-organised pension fund unless the employee actively opts out. A supplementary pension would be virtually automatically built up with this opt-out rule. The pension fund, known as the *Deutschlandfonds*, is to work at cost price and invest in a widely diversified investment portfolio with a higher proportion of equity in order to achieve higher returns. In addition, there is implied government insolvency protection. Overall, a simple, cost-effective standard product is to be offered.

Findings from **behavioural economics** and data from Italy, New Zealand, the United States and the United Kingdom lead to the conclusion that automatic enrolment can increase pension coverage (OECD, 2014). In the United States, automatic payment into the 401(k) system with the ability to opt out has significantly increased participation and thus proven effective (Madrian and Shea, 2001; Choi et al., 2006). However, the employer selects the standard option there. As long as the costs of obtaining information and administrative expense are not reduced in Germany, there is a risk that employers will select unsuitable products. In addition, higher participation in the occupational pension system does not necessarily result in a welfare gain. The automatic saving may lead to substitution, meaning that employees save less in private pensions, although they would choose a form of savings more advantageous for them through this route (Börsch-Supan et al., 2016c; Engen et al., 1994, 1996; Attanasio and DeLeire, 2002).

With an opt-out arrangement for occupational or private pensions, there is also the issue of the specific standard product. The **introduction of a standard product** for all employers could have advantages irrespective of an opt-out arrangement (Board of Academic Advisors to the BMWi, 2016). For example, other countries have the following solutions for opt-out models:

Sweden

In the compulsory fully funded pension scheme in Sweden, a government pension scheme office invests pension assets only in funds that invest on the capital market. In addition to the **state standard product S afa** (balanced between risk and security), there are three standard alternatives that can be selected if an individual decides against S afa and does not want to select their portfolio themselves from individual funds. These invest in equity funds and bond funds in differing fixed proportions and thus have different levels of risk. Overall, there are 850 funds authorised by the authorities.

United Kingdom

The NEST Retirement Fund in the United Kingdom invests in funds from leading fund managers. There are around 50 **NEST Retirement Date Funds** in the default strategy with the idea of following a different retirement strategy based on age. The different Date Funds can be roughly divided into three categories. The foundation phase funds concentrate on keeping pace with inflation and reducing the likelihood of extreme investment shocks. In the growth phase, more risks are taken in order to generate steady growth. In the consolidation phase, although the aim is still to grow the portfolio in real terms, there is an increasing focus on reducing volatility.

United States

With the **401(k) plans** in the United States, the employer selects a standard product for the employee. If the employer wants to reduce its own liability, he can opt for qualified default investment alternatives (QDIA). These are products that invest the funds based on age, anticipated retirement age or life expectancy of the employee or for a group of employees as a whole. Moreover, standard products are not allowed to invest in their own company.

The level of regulation for these standard products is relatively low in the three countries analysed. Furthermore, there are no state guarantees for the pension with standard products.

In Germany, it would theoretically be possible to offer a state-managed product with low fees and administrative costs. Sweden has had good experiences with its state-managed pension funds (Severinson and Stewart, 2012; OECD, 2013). **The management** of this fund is **strictly shielded from government intervention**, meaning that efficient management is possible (Schraad-Tischler, 2014, Börsch-Supan et al., 2016b). [▶ ITEM 102](#) With the exception of Sweden, the experience of other countries has generally been negative (Iglesias and Palacios, 2000; Palacios and Pallarés-Miralles, 2000; OECD, 2015b). For example, governments and parliaments misused these funds to fill gaps in public budgets. Furthermore, a product offered by the government distorts competition due to implied insolvency protection. The returns are ultimately relatively low compared with relevant indices. It would therefore be better to define a standard product through government regulation, that can then be offered by private companies, in order to increase competitive pressure in the market. When **regulating the standard product**, it should be borne in mind that the number of products offered remains limited. For example, there are currently approximately 250 different Riester products, which makes the decision significantly more difficult. In addition, **classification into risk categories** would be advisable, as, for example, in Sweden. Finally, a **cost cap** should be introduced. This type of standard product could be suitable for broader government incentives as it would not be limited to workers subject to social security contributions.

626. An alternative means for reducing the complexity of the occupational pension system would principally be **harmonising the law regarding tax and social security contribution requirements**. Currently, the rules within the occupational pension system are so different from the Riester pension that trying to find the optimum solution quickly becomes a problem.

For an employee, it is difficult to compare whether a Riester pension or an occupational pension is advantageous because payments into a Riester scheme are subject to social security contributions in the contribution period, whereas occupational pensions are subject to these only in the payout period. The fact that employees could acquire higher statutory pension scheme entitlements and contribution volume would be increased for the statutory pension scheme are arguments in favour of **occupational pensions also being subject to social se-**

curity contributions during the contribution period. The higher social security contributions are not likely to be critical for employers because this saving is not seen as an incentive to offer an occupational pension option (Kiesewetter, 2016). In addition, the fact that occupational pensions are currently subject to social security contributions when the pension is paid out could make them less attractive, because employees then have to pay the full contributions to health and long-term care insurance, including the employer's share. Moreover, increasing costs and thus contribution rates are to be expected in the health and long-term care area, meaning that the burden for the individual saver is likely to be lower as a result of social security contributions being due during the contribution period.

However, there are reasons against contributions being deducted during the contribution period; for example, payment of contributions and receipt of benefits would no longer coincide. This argument applies just as much to the current rules on the Riester pension. A change in the rules in the occupational pension system would lead to the currently budgeted contributions from occupational pension payments needing to be compensated for in health and long-term care insurance. Looking ahead, additional contribution rate increases would likely result from this and would come at a time when contribution rate increases are in any case to be anticipated due to demographic changes. The decisive factor is likely to be that **the exemption of occupational pensions from tax and social security contributions is seen as the most important reason for the increasing take-up of occupational pensions** since 2002 (Börsch-Supan et al., 2007). At a time when the aim is to further increase the take-up of occupational pensions, abolishing these rules is consequently problematic.

627. With regard to **tax treatment**, the complexity primarily arises from the fact that the type of taxation depends on the pension vehicle and the amount of saving. [↪ CHART 78](#) One possibility for harmonisation is that a higher proportion of the contributions to occupational and Riester pensions be subject to deferred taxation as the Federal Government now provides for. This would represent a further step towards consumption-oriented taxation and would be welcome from an efficiency point of view (GCEE Annual Report 2015 items 725 ff.). Nevertheless, the aforementioned incentive effects and inconsistencies that arise when there is a clear privilege of occupational pensions should be weighed against this. [↪ ITEM 626](#)
628. The tax treatment of the employer also varies between the pension vehicles. If the direct vehicle of a book reserve scheme is chosen, the employer makes the occupational pension payments itself. For this purpose, the employer must create a **provision** on the balance sheet that reduces earnings accordingly and is intended to tie up the assets in the company until they are paid out. However, the valuation differs for financial and tax accounting purposes. The German Council of Economic Experts argues that the tax accounting valuation should be more in line with the financial accounting valuation. [↪ BOX 23](#)

↳ BOX 23

Impact of low interest rates on pension provisions and need for action

Companies have to set up pension provisions for **future payment claims** from a book reserve scheme, and therefore bear the **interest-rate risk**. The necessary amount of the provisions thus depends largely on the underlying actuarial interest rate. This discount rate is used to calculate the present value of the pension obligation, i.e., the value that future pension payments have today. When the interest rate is low, higher provisions have to be created.

As of 2009, **pension provisions** must firstly be recognised at their settlement value **in the financial statements**. Future salary increases, for example, are included. Secondly, it is mandatory to use an average market interest rate calculated by Deutsche Bundesbank. For simplification purposes, a residual maturity of 15 years may be assumed across the board. The pension provisions calculated in this way are recognised in the income statement as personnel expenses. They thus reduce the company's net income and equity in its financial statements.

The low interest rates of the past few years are increasingly reflected in the average actuarial interest rate. While this was still at 5.3 % in 2009, it fell below 4 % in November 2015. This increases the pension provisions needed. Estimates suggest that a one percentage point change in the interest rate will change pension provisions by 12 % to 15 % (Deutsche Bundesbank, 2015, Bundesregierung, 2015). Companies fear worse financing conditions as a result of the associated lower equity ratio (Hentze, 2016). The Federal Government therefore expanded the period used to calculate the average market interest rate from seven to ten years this year. As a result, the actuarial interest rate is currently above 4 % again and is temporarily falling less sharply. This lessens the **effects of the current low interest rate environment**. The difference that arises from the change in valuation is, however, not allowed to be paid out in distributions.

The extent to which this leads to a **more realistic picture** of future payment obligations is debatable. The use of average rates is intended to level out fluctuations. Using averages over a longer period of time means that the rules are adjusted due to a changed market situation. As a default, the current low interest rate period will have a longer impact on the actuarial interest rate. It is foreseeable that companies will demand that a reduction of the period be taken into account when market interest rates increase. The adjustment means that the German financial accounting rules also now differ more from **international standards**. A smoothing mechanism using an average interest rate was actually abolished for capital market-oriented companies that prepare their accounts under International Financial Reporting Standards (IFRS). The relevant actuarial interest rate for these companies follows the market interest rate and is therefore much more volatile (Deutsche Bundesbank, 2015).

There is, however, a need for action regarding the **tax valuation of pension provisions**, which can be claimed as tax expenses. However, the valuation differs between financial accounting and tax accounting. Firstly, trends in pension development are not taken into account for tax purposes. Secondly, a fixed actuarial interest rate of 6 % is used as the basis. The tax discount rate thus increasingly differs from the average market interest rate. Due to this discrepancy, pre-tax profits currently tend to be overstated. If tax law is not changed, although there will be an identical tax payment in total over the period until the release of the pension provisions, the company will currently have less liquidity available (Hentze, 2016). It would therefore be advisable for tax accounting to be more in line with financial accounting discount rates, as proposed by Deutsche Bundesbank (2015).

629. In order to protect workers' pension entitlements, there is a **multi-level protection system** that takes effect differently for the individual pension vehicles (Clemens and Förstemann, 2016). The employer is fundamentally liable for its commitments. In the case of life insurance and some *Pensionskasse* pension funds, however, Protektor, the guarantee scheme of life insurers, protects

against defaults. These pension vehicles are not affected by insolvency of the employer because they are economically independent. Claims from a book reserve scheme, a support fund or a *Pensionsfonds* pension fund are settled via the pension guarantee fund *Pensions-Sicherungs-Verein* in the event of the employer becoming insolvent. This divides the costs between all the employers involved. *Pensionskasse* pension funds and direct insurance are, in contrast, not protected by this guarantee fund.

In terms of the **structure of the Pensions-Sicherungs-Verein**, the fact that the contributions by companies are to be paid irrespective of credit standing and the limited reserves of this joint scheme appear problematic. For the employer, these rules are associated with different liability risks because it is liable in the case of implementation via external pension providers. The employer thus faces a “double” expenditure risk for the occupational pension scheme. Legal uncertainties can represent an obstacle to actively offering an occupational pension here. A guarantee for those pension vehicles that are not guaranteed via Protektor, such as the *Pensionsfonds* pension fund could make these forms more attractive.

3. Private pensions: the Riester pension

630. Government-incentivised private pension provision is the third pillar of the retirement provision system in Germany. The government-incentivised retirement provision products include the Riester pension and the Rürup pension. Because the Riester pension was set up primarily for all employees subject to social security contributions who are directly affected by the reforms in the pension system, it is the dominant instrument in this area. For this reason, the analysis of the third pillar of the retirement provision system concentrates on the **Riester pension**. The German Council of Economic Experts commissioned an expertise to this end (Börsch-Supan et al., 2016b).

Lack of savings leads to pension gap

631. One aim of the Riester pension was to **close the pension gap** through additional private and fully funded pensions. The gap arises as a result of changes to the pension adjustment formula, looking ahead, causing statutory pensions to increase less quickly than they would have without these reforms and therefore causing the net replacement rate to fall. Consequently, the pension gap does not indicate an absolute decrease in statutory pension payments. These will continue to rise and gain in purchasing power (Börsch-Supan et al., 2016b).
632. The pension gap and the Riester pension level, which relates the payments of the Riester pension to average income, are calculated for a standard pensioner who retires at 65 after 45 years of average pay. [↘ ITEM 560](#) The pension gap refers to the difference on the date of retirement between the standard pension level after and before the reforms. Accordingly, it indicates what percentage of the average gross income is missing in the year of retirement. The pension gap is likely to gradually grow to 6 % (9.5 %) by 2030 (2060) (Börsch-Supan et al., 2016b).

However, in the case of an adjusted standard pensioner, who does not retire until after 47 years of contributions, it is lower at 4 % (8 %). **Part of the pension gap** can thus already be filled by **extending working lives**.

633. Whether the Riester pension can close the pension gap of the standard pensioner with 45 years of contributions depends on the underlying interest rate. Originally, a nominal interest rate of 4.5 % of the saved amounts was used. The pension gap for all age groups would thus be closed. [↪ CHART 85 LEFT](#) The total pension level consisting of the statutory pension scheme and the Riester pension would then stay at today's level, and after 2040 actually rise to over 50 % (Börsch-Supan et al., 2016b).

The assumption of an interest rate of 4.5 % is unrealistic from today's perspective. The **interest rate level** has now **fallen significantly**. In the case of permanently low interest rates, the pension gap will not be able to be completely closed for later generations. This applies, for example at a nominal return of 2 %, to retirements from 2023 onwards (Börsch-Supan et al., 2016a). If the interest rate level remains temporarily low, this will apply only to a few age groups in the transition phase. [↪ CHART 85 LEFT](#)

↪ CHART 85

Pension gap after reforms and contribution of Riester pension to close the gap



1 - It is assumed that the person pays the statutory minimum contribution as a percentage of his income in every year which leads to the maximum subsidy amount. For the year 2000, this meant a yearly saving of 1 % of income which increased gradually to 4 % in the year 2008 (Riester-Steps). The assumed remaining life expectancy of a 65-year old person is 19.2 years in 2012, 22.6 years in 2040 and 26 years in 2060. The Riester pension increases, according to inflation, by 1.5 % each year. The costs of the Riester pension amount to 10 % of the savings rate on average by year during the contribution period, in the pension period there are no costs. 2 - It is assumed that the savings rate remains constant and the saved assets earn 2 % p.a. a - Falling interest rate up to 1.25 % p.a. until 2018 and afterwards increase up to 4.5 % p.a. until 2040. b - Increase of interest rate 10 years later, respectively.

Sources: Börsch-Supan et al. (2016a, 2016b)

634. Whether the Riester pension can actually **close the individual pension** gap depends, apart from the assumption on the interest rate, on the underlying individual characteristics. Especially, a discontinuous contribution phase has negative effects (Börsch-Supan et al., 2016a). Moreover, the start of the pension phase, the savings rate and the income profile are decisive. An empirical analysis shows that households in Germany, on average close their pension gap at a coverage rate of 360 % (Börsch-Supan et al., 2016a). This implies that the additional savings from the Riester pension overcompensate for the slower growth of the statutory pensions. However, the distribution is very heterogeneous. The result is eventually driven by households with high income.

Depending on the assumed definition of wealth, 22 % to 47 % of households are unable to completely close their pension gap. These figures will also vary depending, for example, on the data used and life expectancy assumed. The figure of 47 % calculated here is reached when applying a definition of wealth that does not include the **value of real estate**, but does consider the often associated mortgages and building loans. This definition of wealth thus more or less describes a worst-case scenario, in which the real estate is worthless, while the loans necessary to finance it must still be serviced. Ignoring this worst-case scenario, around two-thirds to three-quarters of households manage to completely close their pension gap. [↪ CHART 85 RIGHT](#)

Higher interest rates would affect this result only slightly. In fact, the problem is, that **households' savings are insufficient** or households do not save at all. Therefore, a closer look at the reasons for their low saving rates is necessary, especially, with regard to the take-up of the Riester pension.

Take-up of Riester pension stagnates

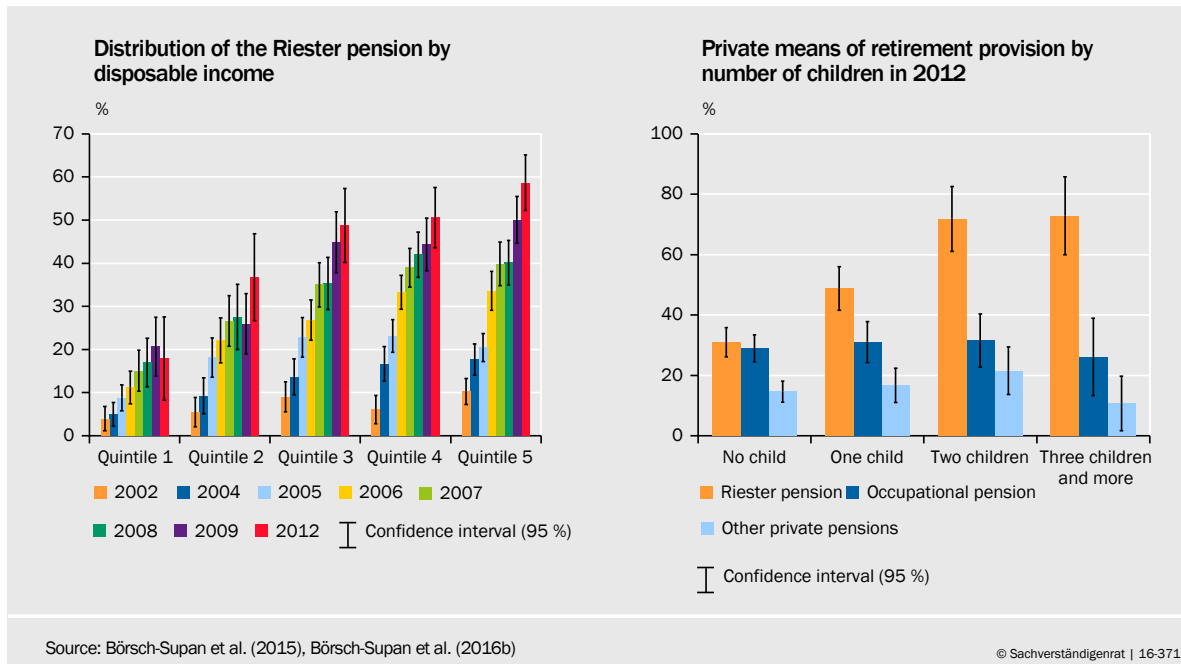
635. The **number of Riester contracts** increased significantly, particularly from 2005 onwards, after the rules were simplified. [↪ ITEM 585](#) Furthermore, the annual pension information that has been sent to scheme members since 2004 has raised awareness of the necessity of additional private pension provision (Dolls et al., 2016). Growth weakened following the financial and economic crisis. The number of contracts has stagnated at around 16 million since 2013, and no further money has been paid into approximately 20 % of existing contracts (BMAS, 2016). Relating the number of Riester contracts to the group of people entitled to incentives, approximately 44 % of those entitled to incentives have such a contract, although one individual saver may have several contracts.

Survey data shows that the proportion of households with at least one Riester contract was also 44 % in 2012. The level of coverage for occupational pensions, by contrast, was only 30 % at household level. Overall, only 39 % of households in 2012 were still completely without supplementary pensions; in 2002 this figure was 73 % (Börsch-Supan et al., 2015).

636. As in the case of occupational pensions, the level of Riester pension coverage increases with household income. [↪ CHART 86 LEFT](#) Whereas approximately a fifth of households in the bottom income quintile have a Riester contract, this propor-

↘ CHART 86

Distribution of the Riester pension



tion is 59 % in the top quintile. This is noteworthy because the incentive ratios are highest for low-income recipients (Börsch-Supan et al., 2015). However, **take-up of the Riester pension is significantly higher than other forms of retirement provision** such as occupational pensions or pensions not incentivised by the government **among people with lower incomes**.

637. Furthermore, it can be seen that there is more take-up of the Riester pension than other private forms of retirement provision among **families with children** in particular. ↘ CHART 86 RIGHT This is related to the Riester pension's child allowances. The level of coverage among households with one child was 49 % in 2012, and coverage among households with two children or three or more children was over 70 % (Börsch-Supan et al., 2016b).

638. The incentivisation of the Riester pension caused **fiscal costs** of €3.6 billion in 2012. €2.7 billion of this is accounted for by the pension allowance and €0.9 billion by the tax incentive. In the case of the allowances, €1.3 billion was accounted for by basic allowances and a further €1.3 billion by child allowances, and €38 million by the young professional bonus (Börsch-Supan et al., 2016b).

639. The **aggregate savings ratio** according to the national accounts has not changed significantly since the introduction of the Riester pension. Private households saved an average of 9.0 % of their disposable income in 2000 before the introduction of the Riester pension, and although this figure rose to 10.5 % in 2008, it was back to around 9.4 % in 2014. Even a breakdown by income brackets does not show any increase in the savings ratios. However, the composition of the pension portfolios is now different from before the reforms. Whereas prior to 2002, safe investments such as bank savings plans, German government bonds and traditional life insurance were particularly widespread, the importance of the occupational pension system and the incentivised Riester products has now increased significantly.

Börsch-Supan et al. (2012) assess the impact of the subsidies and conclude that every euro of government incentives has resulted in between €1.90 and €2.20 of new savings for old age. Overall, the empirical literature is divided as to whether the Riester pension has crowded out other forms of saving (Coppola and Reil-Held, 2009; Corneo et al., 2009; Börsch-Supan et al., 2016b).

Increase acceptance and transparency

640. The low level of take-up among some households is likely to relate to a **lack of financial knowledge and financial planning** among these households (Bucher-Koenen and Lusardi, 2011; Lusardi and Mitchell, 2011). Households with a low level of financial knowledge less often plan for their old age. Thus it would not just be advantageous for retirement provision planning if the development of financial knowledge were increased, for instance at school. Moreover, measures that improve the level of information about Riester products are advantageous. This includes the product information leaflet on the Riester pension with standardised information on product type, incentive type and standardised cost figures, which will be compulsory from 2017. Finally, costs of the guarantee and the underlying interest rate level could be reported. The type of information leaflet could also be considered for existing customers.
641. In addition, many low earners **wrongly assume that they are not entitled to incentives**. Only 49 % of those questioned in the SAVE study considered themselves to be entitled to incentives, whereas it was in fact 73 % (Coppola and Gasche, 2011). One of the reasons may be a change of social security status. For example, recipients of unemployment benefit under SGB III remain entitled to incentives, but this entitlement ceases if they take up marginal employment that is exempt from social security contributions. A general entitlement to incentives could help because there are currently only very few households not entitled to incentives; a note in the statutory pension scheme's annual pension information would thus be helpful (Börsch-Supan et al., 2016b).
642. Many savers wrongly believe that they will receive old-age basic income support although their entitlements from the statutory pension scheme are already higher (Lamla and Gasche, 2013). Therefore, they assume that private retirement provision is not worthwhile for them because it will be deducted from the old-age basic income support they receive. Thus, **limiting the deduction** of government-incentivised pensions from the old-age basic income support to the amount of the allowance, as supported by the German Council of Economic Experts, would increase the attractiveness of private retirement provision even for those households that are not expected to rely on the old-age basic income support at all. This corresponds in principle to the proposal by the Federal Government, to no longer deduct the own contributions of the pension scheme member from the old-age basic income support through introduction of a lump-sum allowance.
643. The greatest supply-side obstacles in opting for a Riester pension are likely to be the **lack of market transparency** and the high costs of Riester products. There are currently different types of distribution, commission and management

costs. Furthermore, the spread of the expense ratios is enormous. In 36 contracts examined, the range was between 2.5 % and 20 % (Gasche et al., 2013). However, none of the contracts examined had a negative return, meaning that the lack of transparency is likely to be the biggest drawback.

644. Furthermore, the literature emphasises the **poor advisory service** (Bucher-Koenen and Koenen, 2015). Moreover, half of households that terminated a Riester contract or converted it to paid-up cited product-specific reasons (Ziegelmeier and Nick, 2013). This proportion is significantly higher than for non-incentivised endowment life insurance.
645. If increased transparency and improved advice does not achieve any noticeable additional take-up of the Riester pension, the introduction of a standard product could be helpful. This type of product could lead to more intense competition. This standard product should not be managed by the state because this would lead to considerable market distortions. [↘ BOX 22](#) However, it would have to meet defined regulatory criteria, such as with regard to risk class, fee types and type of pay-out. One option is to **declare such a standard product the automatic standard solution by means of an opt-out arrangement** if the associated increase in transparency and competition alone are not enough to increase the level of take-up of the Riester pension.
646. If the investment requirements for Riester contracts are to be liberalised, two opposing arguments should first be considered. Requirements that result in a high proportion of government bonds in the portfolio are counterproductive because this causes lower yields. Moreover, **limiting the proportion of equity** is **redundant** if there is an asset value guarantee. The asset value guarantee alone causes bias against alternative pension products. The asset value guarantee in conjunction with a limited ratio of equity causes lower returns for the relevant pension products, and thus mean direct costs for those with Riester contracts.

However, so far, the main goal of government-incentivised pensions was a guaranteed pension benefit. The **asset value guarantee** is significant if the Riester pension alone is to compensate for the decline in the net replacement rate in the statutory pension scheme. Most of all, the asset value guarantee makes private pension provision more attractive precisely for low-earners who have to rely on the security of later pension payments to avoid old-age poverty. Households, who are disposed to take a higher risk in their old age provisions for a better chance to receive higher pension benefits, can choose investment strategies not incentivised by the government.

In light of these arguments, the German Council of Economic Experts is in favour of adjusting the investment rules that extend beyond the asset value guarantee and at least scaling back the **equity ratio limitation**, if not **dispensing with it** altogether. The asset value guarantee should be maintained in order that the Riester pension remains attractive for low-earners. However, it may be at threat given the extent to which occupational pensions are being expanded and the Riester pension is being replaced with the aim of compensating for the falling net replacement rate.

647. Moreover, a higher proportion of savings under Riester contracts paid out upon retirement could make this type of pension more attractive. It is currently possible to have up to 30 % of savings paid out when entering retirement, and only to draw a life annuity from the age of 85. If the benefit amount remained the same, an **increase in the amount paid out** would mean raising the age from which the life annuity could be drawn.

However, this would go against the idea of government-incentivised pension provision aimed at compensating for the declining net replacement rate. A statutory pension and the life annuity from a Riester policy should add up to more than the old-age basic income support. The share paid out upon retirement should be kept low precisely because pension scheme members systematically underestimate their life expectancy (Börsch-Supan et al., 2016b).

648. Since the introduction of the Riester pension 15 years ago, the allowances and level of savings eligible for incentives have not increased. Therefore, an **adjustment in line with inflation** should be considered. Particularly for low earners, the real incentive level should be retained.

IV. STRENGTHEN ALL THREE PILLARS

649. The transition to a **pension system based on three pillars** has proven a **correct and important step**. It has not just contributed to financially stabilising the statutory pension scheme. In fact, the resulting mixed system of pay-as-you-go and fully funded pensions – which is common internationally – enables the burden arising from demographic change to be distributed more evenly across the generations. At the same time, **an increase in old-age poverty across the board is not to be expected**.

However, only together with occupational and private pensions, the statutory pension scheme is likely to enable permanently stable provision for the elderly for the majority of the population. The currently low interest rate level does not alter this conclusion. Measures that increase the importance of the first pillar again would therefore represent a step backwards. Nevertheless, a need for action remains in the statutory pension scheme and in occupational pensions and state-incentivised private pensions.

Although the reforms of the past have contributed to stabilising the financial situation of the statutory pension scheme at least in the medium term, looking ahead there will still be an increase in the contribution rate and a reduction in the net replacement rate. By 2080, the contribution rates to the statutory pension scheme would have to rise to 24.3 % for a net replacement rate of 41.3 % in order to cover pension spending by contribution revenues. In order to at least attenuate both, the German Council of Economic Experts considers a **further increase in the retirement age beyond 2029** necessary. Ideally, this should be implemented by linking it to the development of further life expectancy at age

65, meaning that the relative pension payment period remains constant. This would produce a net replacement rate of 42.1 % and a contribution rate of 23.9 % in 2080. The sustainability gap would thus fall to 3.1 %.

A new floor for the net replacement rate, such as 45 %, would mean that contribution rates would have to rise significantly higher from 2040 to reach 26.2 % in 2080. If the self-employed without obligatory cover to date were included in the statutory pension scheme, the contribution rate would be 24.5 % and the net replacement rate 41.6 % in 2080. The sustainability gap would be 4.6 %.

650. A great deal has already been achieved in the second and third pillars. For example, the **level of coverage** by occupational pensions and the Riester pension has increased. However, it cannot be expected that every statutory pension scheme member cares for the necessary level of additional retirement provision. In the field of occupational pensions, there is a need for action particularly with regard to **employees in SMEs and low earners**. The high costs of obtaining information and the administrative expense represent a key obstacle to offering an occupational pension. With the Riester pension, it is also low income recipients who have a comparatively low take-up rate at around 25 %. The reasons for this are not least a lack of financial knowledge, a lack of knowledge about entitlement to incentives, the (false) assumption of later having to rely on old-age basic income support and the lack of transparency in Riester contracts that reduces competition between providers.
651. The product information leaflets to be made available by providers of certified retirement provision products from 1 January 2017 may make a contribution to increasing **transparency in the Riester pension**. Moreover, it would help to establish a few standard products not provided by the government. In addition, more emphasis should be put on financial education at school. Finally, the investment rules should be revised and the limitation on the equity ratio lifted.
652. In the occupational pension system, associations, guilds and chambers could be encouraged to give their members more information about the occupational pension system and make a preliminary selection of occupational pension products available. It would be even simpler for employers if the unions and employer organizations offered standard products. In this regard, the standard products discussed in the context of the Riester pension would make sense. Low earners could be offered an **allowance model in the occupational pension system** similar to private Riester pensions. In any case, the **double social security contribution** when choosing a Riester pension as part of the occupational pension system **should be abolished**.
653. In future, retirement income from government-incentivised retirement provision should be at least partially exempt from deduction from the old-age basic income support. Instead, an allowance could be introduced. This could prevent a situation where people who (wrongly) expect an entitlement to the old-age basic income support in retirement do not make retirement provisions during their working lives.

654. As result of the aforementioned measures in the second and third pillars, it is likely that greater take-up of supplementary retirement provision options – even among low earners – can be achieved without deviating from the tried and tested three pillar model.

A differing opinion

655. One member of the German Council of Economic Experts, Peter Bofinger, holds a different opinion on the analysis of the German retirement provision system presented in this chapter.
656. The majority of the Council members conclude that the transition to a retirement provision system based on three pillars introduced with the reforms in the 2000s has proven “a **right and important step**”. They state that it has contributed to “**financially stabilising**” the statutory pension scheme “**in the medium term**” and cushioning the decline in the net replacement rate in the statutory pension scheme with occupational and private pensions.
657. As Börsch-Supan et al. (2016b) establish, the **overarching question** regarding the success of the Riester pension is “the question of how saving by private households has developed overall.” Generally, it seems that the broad-based incentivisation of private saving through the Riester pension and the occupational pension system has not succeeded in stimulating **saving by private households**, particularly in the low-income segment. The saving ratio has instead fallen significantly particularly among those with a low income. ↘ TABLE 27 Recently, i.e. in 2013, it was in fact negative up to a net household income of €2000. In 1999, i.e. before the start of the incentivisation to save, the threshold for the negative saving ratio was still €1,300. The falling saving ratios among people with lower incomes are likely to be largely due to the more than 10 % decrease in median household income in the period from 2000 to 2013. ↘ TABLE 27 The finding of a negative or barely positive propensity to save among recipients of low incomes is consistent with the statistic on wealth distribution, according to which the lower half of private households only holds 3 % of the total wealth.
658. The insufficient ability to save is particularly problematic if we take into account the fact that it is becoming increasingly difficult to acquire a pension entitlement above the level of the old-age basic income support as a result of the reduction of the pension level. According to calculations by the Institute for Work, Skills and Training (IAQ), an employee who retires in 2030 and consistently earns an income of 70 % of the average income must have 45.7 years of contributions in order to achieve a **pension at the level of the old-age basic income support**. ↘ CHART 87 Currently, 48.3 % of employees receive gross pay of below 70 % of the average income. This should not lead to the conclusion that there will be a corresponding annual level of old-age poverty. For example, income generally increases with age and there is often financial protection through another mem-

TABLE 27

Savings rate of private households between 1998 and 2013 by monthly net household income¹

Year	Households total	Among them by monthly net household income between €... and ...							
		900	900 to 1,300	1,300 to 1,500	1,500 to 2,000	2,000 to 2,600	2,600 to 3,600	3,600 to 5,000	5,000 to 18,000
1998	11.9	- 9.6	- 1.5	2.0	3.0	6.6	10.3	14.5	25.7
2003	11.1	- 11.8	- 0.5	0.5	2.4	4.4	9.0	13.0	21.8
2008	10.5	- 22.7	- 3.9	- 1.7	1.7	2.0	7.5	12.1	22.0
2013	10.0	- 18.6	- 4.8	- 4.6	- 1.0	1.7	5.2	10.3	20.7

1 – All figures in percent.

Source: Federal Statistical Office

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ber of the household. However, there is also a risk of unemployment for a prolonged period and the possibility of divorce. Furthermore, income distribution is increasingly rigid (Spannagel 2016). Overall, it is therefore to be assumed that the **problem of old-age poverty** will increasingly gain importance.

659. For the Riester pension, on the assumption of the cohort life expectancy calculated by the Federal Statistical Office, it appears that 53 % of households are not able to close the **pension gap** created by reducing the pension level (Börsch-Supan, 2016a). This analysis ignores the often only barely liquid real estate assets of households.
660. The “Households and their finances” (PHF) study by Deutsche Bundesbank (2016) identifies an **extremely low level of cover** by the **Riester and Rürup pensions** in the low income segment for 2014. Only 5 % of households in the lower quantile of gross incomes have a relevant retirement provision product. In the 20-40 % quantile the proportion is 14 % and even in the 40-60 % quantile only around one in five (21 %) has relevant cover. The conditional median of the assets saved in this form is extremely low. In households with a gross income in the 0-20 % segment it is €1,300, in the 20-40 % segment it is €1,900 and even in the higher segment of 40-60 % it is only €2,700.
661. Moreover, Börsch-Supan et al. (2016b) point out that in academic literature the effect of the introduction of subsidised savings products on overall savings is far from clear because there can be **free rider effects** and portfolio shifts. For example, Corneo et al. (2009) and Pfarr and Schneider (2011) cannot refute the hypothesis that the Riester pension has crowded out alternative forms of saving.
662. The incentivisation of **occupational pensions** through exemption from social security contributions does not stabilise the statutory pension scheme, but rather **destabilises** it by draining contributions from the statutory pension scheme. The sustainability factor means an additional reduction of the pension level (GCEE Annual Report 2007 item 271). In its Annual Report 2007/08, the German Council of Economic Experts therefore spoke of “**problematic distribution effects**”. It stated that:

“It must therefore be noted that the exemption of social security contributions in the case of salary conversion reduces the return in the statutory pension scheme

↘ CHART 87

Overlapping of basic income support and pension with a decreasing net pension replacement rate¹



for a very long transition period. As a result, the exemption from social security contributions creates a redistribution from older to younger people. Those who do not want to or cannot accept the offer of the exemption of social security contributions in the case of salary conversion are permanently disadvantaged.” (GCEE Annual Report 2007 item 278)

663. The occupational pension system's problematic distribution effects also include the fact that **employers** are thus afforded a saving on social security contributions without having to provide anything specific in return. Kiesewetter et al. (2016) therefore recommend creating “a statutory obligation for an employer contribution in the case of salary conversion (new commitments)”. As a result of this contribution, the employee would be compensated in advance for bearing the burden of social security contributions alone in the pension period. Reduced entitlements in the pension system as a result of salary conversion would also be compensated. This – in the event that the occupational pension system's exemption from social security is maintained – sensible recommendation is not supported by the majority of the Council.
664. In a **global low-interest rate environment**, the incentivisation of the occupational pension system through an exemption from social security contributions is particularly questionable. In the statutory pension scheme, men can expect a **return of 3 % to 3.5 %**, and women as much as **of 3.5 % to 4 %**. ↘ CHART 88 This calculation takes account of the reduced earnings capacity pensions (*Erwerbsunfähigkeitsrenten*, formerly *Berufsunfähigkeitsrenten*) and survivors' pensions additionally granted with the statutory pension scheme and rehabilitation benefits. If employees make lower contributions to the statutory pension scheme for their payments to the occupational pension system, they thus forgo a relatively high return in order to acquire investments that can barely generate a positive return in the foreseeable future.

665. Evaluating the occupational pension system in the context of an **evidence-based policy consultation** is impeded by the fact that – as mentioned by the majority of the Council – there is no reliable data on the level of contributions to the occupational pension system, to retirement provision as a whole or the level of retirement income.

An **expansion of the incentivisation** of the occupational pension therefore appears completely counterproductive in the current circumstances and in view of the presumably persisting low interest rate environment.

666. The majority of the Council argue in favour of **compulsory pension cover for the self-employed** without **obligatory cover**. However, they reject compulsory retirement provision within the statutory pension scheme. They are thus against a measure through which it would be possible to raise the pension level by around one percentage point and reduce the contribution rate by around half a percentage point for decades. ↘ CHART 88 Only “in the long term”, i.e. specifically from 2070, is little difference from the base scenario identifiable. ↘ BOX 21

The fundamental problem of not making inclusion in the statutory pension scheme compulsory was expressed by the German Council of Economic Experts as follows in its Annual Report 2006/07:

“Whether, beyond this compulsory pension cover, inclusion in the statutory pension scheme is advisable depends primarily on whether we attach great importance to the aim of treating this group of people and the current members of the statutory pension scheme equally and reducing the burden on the current generations of contributors.” (GCEE Annual Report 2006 item 358).

It is not clear, nor are reasons provided by the majority of the Council as to why the self-employed who do not have any cover for old age should be fundamentally treated differently in statutory retirement provision from people working for an employer. In addition, it should be taken into account that the dividing line between the work of a person working for an employer and a self-employed person is likely to become increasingly difficult to draw in future, not least due to digitalisation. Not making pension cover for the self-employed in the statutory pension scheme compulsory therefore undermines the medium and long-term stability of the statutory pension scheme.

APPENDIX: THE IMPLIED RETURN IN THE STATUTORY PENSION SCHEME

667. In connection with the current period of low interest rates, reference is made in the public debate to the fact that the return in the statutory pension scheme is currently higher than the return on a capital market investment. For a proper assessment of this statement, this appendix updates the German Council of Economic Experts' calculations on the implied return in the statutory pension scheme. The level of return reported depends largely on the underlying assumptions. The concept is thus suitable for investigating the intergenerational distribution effects of pension reforms, in particular. [▶ ITEM 572](#) A comparison with the return on other forms of investment is, however, problematic.

1. Methodology and assumptions

668. The implied return in the statutory pension scheme is the interest rate at which the present values from the payments into the pension system (individual contribution payments) and the payments out of the pension system (pension benefits) equal zero (GCEE Annual Report 2003 Box 9). The idea behind this reasoning is that in the case of investment of funds contributed and paid out until the end of life in the capital market, the terminal value would be the same as in the case of an alternative investment in the capital market with the return calculated. People would thus be indifferent between the two retirement provision alternatives. Various aspects influence the contributions and benefits here:

- The individual contribution payments are determined by earnings in the individual's working life and the applicable contribution rates.
- The individual pension benefits depend primarily on the earnings points achieved as a result of the contributions, the retirement age, the current pension values in the pension period and the length of life. The statutory pension scheme's subsidies for the pensioner's health insurance and long-term care insurance are also relevant. The statutory pension scheme currently bears half of the contribution rates. With health insurance, the health insurer-specific additional contribution is, however, to be paid by the statutory pension scheme member alone.

669. The statutory pension scheme members also make contributions to funding the federal subsidy to the statutory pension scheme by paying taxes. These tax payments can be taken into account when calculating the return in the same way as contribution payments. They are however not modelled in this analysis because further assumptions would be necessary for this purpose. As long as the federal subsidy and spending on non-insurance benefits do not differ significantly, the federal subsidy can be ignored in the calculation of return.

670. In this analysis, the implied return of a representative person living in West Germany with a certain year of birth is considered. Because life expectancy var-

ies between women and men, the return for each is reported separately. It is assumed that the representative person works from the age of 20 and earns the average gross pay annually until statutory retirement age. The person thus acquires between 45 and 47 earnings points during his/her working life depending on the year of birth. This definition of the representative person thus differs from the standard pensioner. [↘ ITEM 560](#)

671. The pension period lasts from the statutory retirement age until death. The further life expectancy at age 65 from the 13th coordinated population forecast is used in the analysis for calculating this period, and the respective retirement age is taken into account. For those who retire after 2060, it is assumed that the further life at age 65 will continue to develop as it did until 2060 and will rise gradually by an additional full year every eleven years.
672. The projections from Werding (2016) are used for the statutory pension scheme's contribution rates, the current pension values and the average income until 2080. The contribution rate thus rises to 24.3 % by 2080 in the baseline scenario. In the “reform withdrawal” scenarios it rises to 33.4 %. For the years after 2080, it is assumed that gross earnings and the current pension value rise by 3 % each year in nominal terms. These years are first relevant for pension payments to people born in 1993; from births in 2013 onwards, only the assumptions from 2081 determine the calculation of return in the pension payments. The rate of contribution to the statutory pension scheme is kept constant after 2080.

Using a constant contribution rate and the growth rate of gross earnings for the current pension value from 2081 can be justified by the fact that in the projections by Werding (2016), the contribution rate and the net replacement rate reach an “equilibrium” level towards the end of the period. [↘ CHART 81](#)

673. The baseline scenario calculates the returns under the current legal framework. This means that the retirement age gradually rises from 65 to 67 for people born between 1947 and 1964. The rise is initially one month per birth-year cohort until the generation born in 1958, and then two months every year. The current pension value is updated in accordance with the pension adjustment formula. [↘ BOX 20](#)
674. In the “reform withdrawal, 45 years of contributions” scenario, it is assumed that the sustainability factor and the contribution rate factor are removed from the pension adjustment formula from 2016 and the statutory retirement age is reduced back to 65. For this calculation of the return, it is assumed that the person in question only makes 45 years of contributions irrespective of the year of birth. However, compared to the baseline scenario with rising retirement age, this person has a lower lifetime income and more leisure time at the end of life.

The utility from the labour supply decision is thus completely different from the baseline scenario and the return has a different utility value for the person. Therefore, an alternative calculation is shown, in which the person in question nevertheless retires later in accordance with the legal situation that applies in the baseline scenario (“reform withdrawal, same retirement age with premi-

ums”). Thus, a comparison of the return for the same life plan between different scenarios is possible.

Because the actual retirement age is higher in this case than the statutory one, premiums are awarded. The pension permanently increases by 0.5 % for each additional month worked. In order to illustrate the effect of the benefit improvements, returns are additionally calculated in the case of later retirement that do not take these improvements into account (“reform withdrawal, same retirement age without premiums”).

675. As well as old age pensions, the statutory pension scheme, for example, also pays reduced earnings capacity benefits (*Erwerbsunfähigkeitsrenten*, formerly *Berufsunfähigkeitsrenten*) and survivors' pensions and provides rehabilitation benefits. If we wish to take these into account when calculating the return, we would only use the part of contributions that is used for paying old age pensions. This correction becomes primarily relevant if the implied return in the statutory pension scheme is to be compared with returns on investments in the capital market.

Specifically, in alternative calculations the contributions paid in are multiplied by a correction factor smaller than one, which is equivalent to the proportion of old-age pensions (plus the pro rata management costs) in total pension scheme spending in the respective year. The return is higher and a comparison with the return of a fully funded pension becomes possible. The factor 0.8 is plausible because around 20 % of the contribution payment serves to cover reduced earnings capacity risk and mortality risk (GCEE Annual Report 2004 item 321; Ohsmann and Stolz, 2004). The scenarios with the correction should be considered for a comparison of the returns calculated here with those of other retirement provision strategies.

2. Interpret figures with caution

676. In the interpretation of the figures presented here, it should be noted that these reflect the returns for a specific working life. The returns could differ significantly in a different employment history (GCEE Annual Report 2004 item 321). For example, it is relatively unlikely that an “average” employee will earn precisely the average income across their entire working life. It is more realistic that earnings will be lower in earlier years and higher in later years. This would have a positive effect on the return in its own right, because the later higher payments into the pension would be more heavily discounted than the lower, earlier ones. At the same time, a return-reducing effect will arise if the contribution rate is higher in later years and the individual therefore has to contribute a larger proportion of his/her income with a high social security contribution rate.

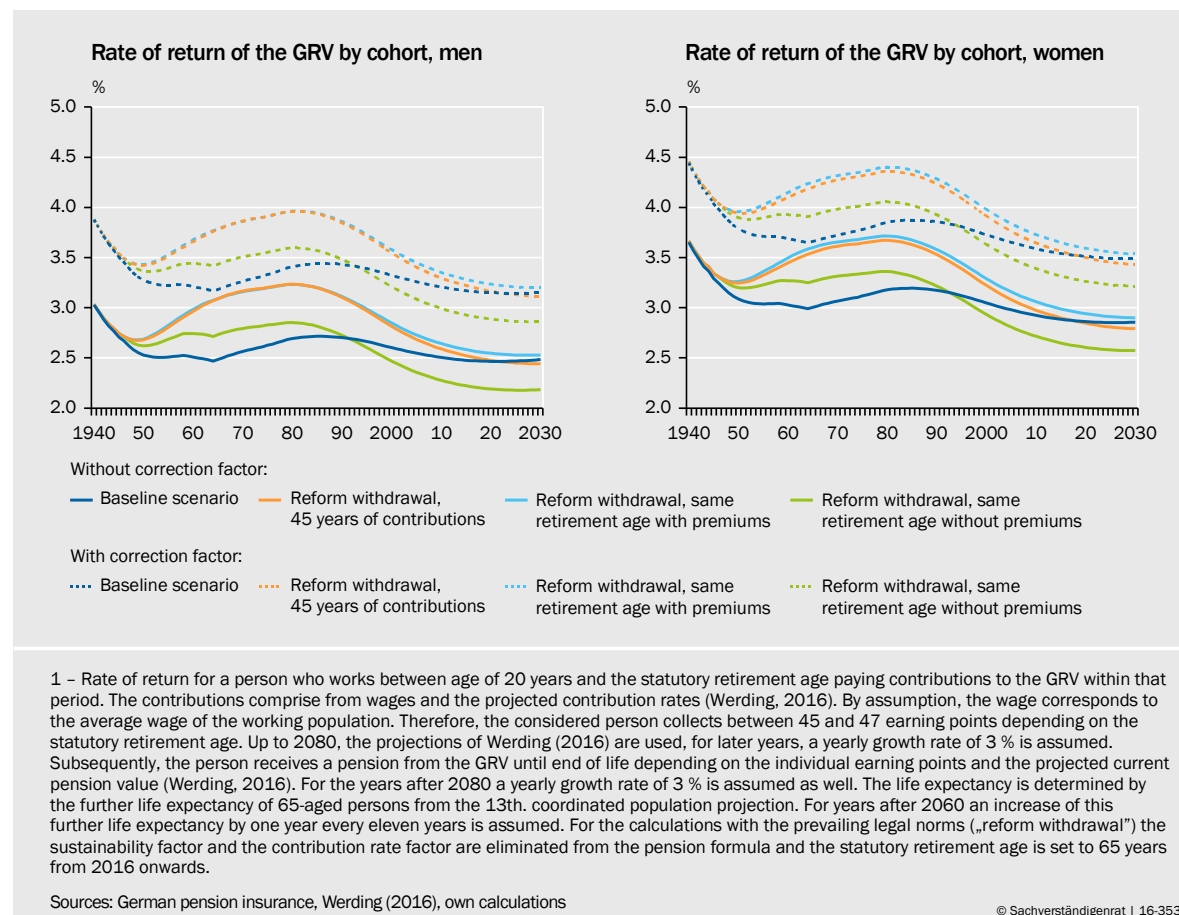
Moreover, women contribute to the statutory pension scheme over this period of time significantly less frequently than men. The return is lower or higher depending on whether a woman earns more at the beginning or end of her working life.

677. A decisive aspect is how long the pension benefit is drawn. Average further life expectancy at age 65 is assumed in these calculations. This variable varies considerably. The return for a statutory pension scheme member who lives well past 90 is significantly higher than the values presented, whereas a statutory pension scheme member who dies at 67 has a negative return.
678. Finally, for a comparison of the figures with capital market returns, it should be noted that the return after tax is relevant in each case. However, this cannot be determined across the board for the statutory pension scheme because the tax burden on pensions rises over time (gradual introduction of deferred taxation) and the tax advantage as a result of the deduction of the pension scheme contributions during the individual's working life depends on further individual attributes, such as the level of other income. This analysis reports returns before tax.

3. Results

679. The starting point for considering the results is the baseline scenario: [↘ CHART 88](#)
- The returns in the statutory pension scheme for men are higher than 2.4 % without a correction factor for all the years of birth considered.
 - The return falls for people born between 1940 and 1954, and remains almost constant for those born between 1954 and 1964.
 - For people born between 1964 and 1985 the return increases again. A significant rise in contribution rates is not to be expected until 2027, meaning that these cohorts still benefit from relatively low contribution rates during their working lives. In addition, people born from 1965 onwards benefit from further rising life expectancy without a further rise in retirement age.
 - Demographic change becomes increasingly noticeable in the returns for people born from 1987 onwards. The returns fall from this year of birth, despite increasing life expectancy.
 - Taking account of the correction factor for non-insurance benefits, the returns are fundamentally around 0.8 percentage points higher.
 - The picture for women is similar to that for men. Women fundamentally have higher returns because they have a higher life expectancy.
680. The results of the baseline scenario, which is based on the current legal situation, are compared to an alternative scenario that assumes the reforms are withdrawn. The core results are that:
- The reforms since 2001 have reduced the return for almost all cohorts. The difference is particularly noticeable for the older cohorts. This holds primarily because they already have to accept the lower current pension values following the reforms, but do not have the advantage of lower contribution rates. Not until those born from around 2022 onwards does the return rise slightly in comparison to reversing the reform.

↘ CHART 88

Implicit rate¹ of return of the statutory pension (GRV), comparison to prevailing legal norms

- If you do not take into account the premiums for contribution payments beyond the statutory retirement age, a stronger return-stabilising effect of the reforms can be seen for people born from 1990 onwards.
- The return is almost the same if the reforms are withdrawn if a working life of up to 67 years of age is assumed and premiums are taken into account, or 45 years of contributions are assumed for all cohorts. The increases thus appear to serve their purpose of producing indifference between these two alternative courses of action.

4th Comparison with other recent studies

681. The results are in line with other studies in terms of the level of returns calculated. A study by the Handelsblatt Research Institute with Prognos (Rürup et al., 2014) calculates a return of 2.8 % for a 20-year-old employee born in 1993. In its model calculations on return, Deutsche Rentenversicherung assumes a pension scheme member who has contributed average earnings for 45 years from 1971. The return calculated is around 3 % in this model case (Deutsche Rentenversicherung Bund, 2016). A separate publication (Deutsche Rentenversicherung Bund, 2013) indicates returns of between 3.2 % and 3.8 %, depending on gender, marital status and the age of the pension scheme member at retirement. For retirements in 2040, it is thus between 3.0 % and 3.4 %.

It should be noted that these calculations are based on the projections of the respective pension reports (*Rentenversicherungsberichte*). However, in that reports, in contrast to this analysis, the contribution rate and current pension value are only updated until 2029. Thus, reliable statements are only possible for people born until 1944 (retirement in 2009).

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