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Financing social protection

Germany

Thomas Gerlinger
Uwe Fachinger
Walter Hanesch

Social Europe

EUROPEAN COMMISSION
Directorate-General for Employment, Social Affairs and Inclusion
Directorate C — Social Affairs
Unit C.2 — Modernisation of social protection systems
Contact: Giulia Pagliani
E-mail: Giulia.PAGLIANI@ec.europa.eu

European Commission
B-1049 Brussels

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ESPN Thematic Report on Financing social protection

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Thomas Gerlinger, University of Bielefeld
Uwe Fachinger, University of Vechta
Walter Hanesch, University of Applied Sciences Darmstadt

Directorate-General for Employment, Social Affairs and Inclusion
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The European Social Policy Network (ESPN) was established in July 2014 on the initiative of the European Commission to provide high-quality and timely independent information, advice, analysis and expertise on social policy issues in the European Union and neighbouring countries.

The ESPN brings together into a single network the work that used to be carried out by the European Network of Independent Experts on Social Inclusion, the Network for the Analytical Support on the Socio-Economic Impact of Social Protection Reforms (ASISP) and the MISSOC (Mutual Information Systems on Social Protection) secretariat.

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Summary

Between 2005 and 2016, total gross expenditure on social protection in Germany increased slightly from 28.9% to 29.4% of GDP. Thus the rate of increase in this period was below the EU-28 average, whereas the share in 2016 was slightly higher (29.4% vs 28.2%).

With regard to the various functions of social protection, there was a significant shift between 2005 and 2016 in the relative shares of expenditure on sickness benefits and healthcare, on the one hand, and old-age insurance benefits, on the other. Sickness benefits and healthcare increased their share of total expenditure during this period from 28.4% to 34.9%, while the share of expenditure on old-age insurance benefits fell from 34.6% to 32.2%. The share of expenditure on other functions also declined gradually from 37% in 2005 to 32.8% in 2016.

Social insurance contributions were the main source of financing for net social protection expenditure, with their share rising slightly from 63.3% in 2005 to 64.8% in 2016. The share of general government contributions fell accordingly from 34.7% to 33.5%. Other sources played only a marginal role. Within social contributions, the distribution of the burden between employers, employees, self-employed people and benefit recipients remained largely unchanged, with a slight reduction for employers and a greater increase for benefit recipients.

The burden of financing old-age benefits gradually shifted to social contributions. Only contributions for employees and self-employed people increased during the period examined. Whereas the rise in the contributions paid by the self-employed reflected more or less the increase in self-employment, the increase in employee contributions combined with the fall in employer contributions indicated a shift in the burden from employers to employees.

Financing arrangements in the health sector also underwent some changes during this period. Employers were relieved by the shifting of statutory health insurance (SHI) contributions to insured persons and the raising of co-payments for benefits. It was only in 2019 that equal payment of SHI contributions was restored. Moreover, considerable state subsidies for SHI were introduced. The main drivers for the relief offered to employers were the government's objectives of improving the competitiveness of German enterprises and strengthening the incentives for investment in Germany.

With regard to the financing of social protection, a major strength of the German system is the equal payment of social insurance contributions by employers and employees, as it implies that employers will automatically pay the increases in contribution rates that, it is to be assumed, will be necessary in the coming decades. Furthermore, earnings-related social insurance contributions should be seen as a major strength, since the financial burden on insured persons is, in principle at least, commensurate with their ability to pay, even though this principle is not always upheld. Finally, the pay-as-you-go system for funding social insurance helps to maintain the stability of expenditure on social protection.

However, this funding system does have some weaknesses. Contributions to social insurance are determined by wage levels, not the added value of a particular industry or enterprise. Thus, relative to the value they create, labour-intensive enterprises or industries where productivity is below average pay a higher share of their revenues in social insurance contributions. Moreover, with regard to burden sharing among the insured, the fact that the level of an individual's social insurance contributions is determined solely by their income from gross wages has often been criticised for not taking into account income from other sources (e.g. capital or rent). Thus, the principles on which increases in contributions are based are frequently perceived to lack fairness. These aspects used to be a subject for debate in the past but have currently dropped off the agenda. Even though reform continues to be debated in almost all areas of the social security system, the focus is less on the financing side. The dominance of contribution-financed social insurance in the German social security system is not being called into question.

1 Current levels and past changes in the financing of social protection

1.1 Overall development

Between 2005 and 2016, total gross expenditure on social protection in Germany grew slightly as a share of GDP, from 28.9% to 29.4%. The rate of increase was below the EU-28 average, whereas the share of GDP in 2016 (29.4% vs 28.2%) was slightly above it (see Table 1). The difference between the shares of gross and net social protection expenditure in GDP increased slightly between 2007 (2.0 p.p.) and 2015 (2.5 p.p.). The major difference between gross and net expenditure can be explained by the fact that pensions are subject to taxation. In absolute numbers, according to the Federal Ministry for Labour and Social Affairs, total gross expenditure on social protection was €929 billion in 2016[1] (Bundesministerium für Arbeit und Soziales 2018a). At constant prices, average annual growth in gross expenditure on social protection in Germany between 2005 and 2016 was slightly below the EU-28 average (1.8% vs 1.9%).

Due to the dominant role of social insurance in the German social protection system, contribution financing also dominates the financing of the German social protection system. In social insurance, tax financing serves only as supplementary financing, especially for so-called non-insurance benefits. In addition, minimum-income benefits and financial subsidies such as housing benefit and child benefit, but also child and youth welfare benefits, assistance for the disabled and compensation payments, are financed from tax revenues. In addition, tax relief – such as the child allowance or tax splitting in family policy – is intended to reduce social burdens, although as a rule middle- and higher-income households benefit most from this.

The share of means-tested benefits in social protection expenditure rose by 0.8 percentage points between 2005 and 2016: from 12.2% to 13%. Although the increase was lower than the EU-28 average, the share remained higher than for the EU-28.

Table 1. Share of gross expenditure on social protection in total GDP, Germany and EU-28 2005-2016

	2005 %	2008 %	2010 %	2012 %	2014 %	2015 %	2016 %	2005-2008 p.p.	2008-2010 p.p.	2010-2016 p.p.	2005-2016 p.p.
Germany	28.9	27.2	29.9	28.8	29.0	29.2	29.4	-1.7	+2.7	-0.5	+0.5
EU-28	26.0	25.9	28.6	28.7	28.7	28.4	28.2	-0.1	+2.7	-0.4	+2.2

Source: Eurostat, ESSPROS database.

With regard to the various functions of social protection, there was a significant shift between 2005 and 2016 in the relative shares of expenditure on sickness benefits and healthcare, on the one hand, and old-age insurance benefits, on the other. Sickness benefits and healthcare increased their share of total expenditure during this period from 28.4% to 34.9%, while the share of expenditure on old-age insurance benefits fell from 34.6% to 32.2% (see Table 2). The shares of statutory health insurance (SHI) and statutory long-term care insurance (SLTCI) in total expenditure grew faster than those of other budget items: for the reasons for this, see Section 2.3.

[1] Even though the European System of Social Protection Statistics (ESSPROS) provides data on social protection based on national data, there is not a complete conceptual match between the ESSPROS system and national accounts (Eurostat 2016). In the case of Germany, the quantitative deviations are within narrow limits. In 2016, for example, the share of gross expenditure on social protection according to the federal government's social budget was only 0.1 percentage points higher than the corresponding ESSPROS ratio (Bundesministerium für Arbeit und Soziales 2018a).

Table 2. Breakdown of gross expenditure on social protection by function (% total expenditure), Germany and EU-28 2005-2016

	2005			2010			2016		
	Sickness and health	Old age	Other	Sickness and health	Old age	Other	Sickness and health	Old age	Other
Germany	28.4	34.6	37.0	32.7	33.0	34.3	34.9	32.2	32.8
EU-28	28.7	38.6	32.7	29.1	39.1	31.8	29.5	40.1	30.4

Source: Eurostat, ESSPROS database.

Social insurance contributions were the main source of financing for net social protection expenditure, with their share rising slightly from 63.3% in 2005 to 64.3% in 2015 (Table 6): it reached 64.8% in 2016. The share of general government contributions fell accordingly, from 34.7% in 2005 to 33.5% in 2015. Other sources played only a marginal role. Within social contributions, the distribution of the burden between employers, employees, self-employed people and benefit recipients remained largely unchanged, with a slight reduction for employers and a greater increase for benefit recipients (see Table 7).

1.2 Pensions

Overall, expenditure on old-age pensions as a share of total social protection expenditure declined between 2005 (34.6%) and 2016 (32.2%), as shown in Table 2. This contrasted with the trend in the EU-28, where there was an increase from 38.6% to 40.1%. However, the decline did not necessarily mean that the volume of expenditure also fell. Looking at the total amount, expenditure increased in nominal terms from €313,074 million in 2005 to €396,530 million in 2016, and in real terms from €338,458 million in 2005 to €369,207 million in 2016 (at 2010 prices) (Bundesministerium für Arbeit und Soziales 2018a, p. T 2; Bundesministerium für Arbeit und Soziales 2009, p. T 2; Deutsche Rentenversicherung Bund 2018, p. 272). However, expenditure on old age as a share of GDP declined from 13.6% in 2005 to 12.5% in 2016 (Deutsche Rentenversicherung Bund 2018, p. 285). This can be seen as an indication that older people did not benefit proportionally from the overall increase in social welfare and that federal governments over the last two decades have succeeded in their policy objective of reducing the 'burden' of expenditure on pensions.

However, the German old-age pension system is highly diversified, and it is unclear whether the main changes were the same for all systems or whether there were structural differences. In order to obtain a differentiated picture, it is necessary to analyse the different schemes. In what follows, the developments shown (by way of examples) apply to the statutory pension insurance scheme (SPI). The SPI is by far the largest old-age pension scheme: at the end of the period examined, 90% of people aged 65 and older received a pension from the SPI, and 74% of all expenditure on old-age pensions was by the SPI (Bundesregierung 2016, p. 12). The second largest scheme was that for civil servants, which accounted for 14% of total expenditure on pensions.

In Table 3, expenditure as a share of GDP and as a share of the social budget is shown for the four main statutory old-age pension schemes in Germany. As can be seen, changes in the expenditure structure of the schemes took place between 2005 and 2016, which become even more apparent when looking at the share of the social budget. Whereas the share of the SPI declined, those of civil servants' pensions and the liberal professions' pensions slightly increased in this period. The overall picture of expenditure reduction in the statutory pension system has to be complemented by information about the specific schemes. Otherwise, structural changes within the old-age pension system cannot be adequately identified. These changes have consequences for the structure of financing, because, for example, the SPI is mainly financed by contributions and the pensions of the civil servants are financed only out of taxation.

Table 3. Expenditure on pensions of the main statutory old-age pension schemes (Germany 2005-2016)

Year	SPI	Civil servants	Liberal professions	Farmers
As % of GDP				
2005	10.4	1.7	0.1	0.1
2016	9.3	1.8	0.2	0.1
As % of social budget				
2005	34.2	5.3	0.4	0.5
2016	31.9	6.0	0.7	0.3

Source: Bundesministerium für Arbeit und Soziales 2018a, p. T 2; Bundesministerium für Arbeit und Soziales 2009, p. T 2.

1.3 Sickness, healthcare and long-term care

Overall, expenditure on sickness benefits, healthcare and long-term care as a share of total social protection expenditure went up between 2005 (28.4%) and 2016 (34.9%) as shown in Table 2. The increase exceeded that of the EU-28, where only a slight increase from 28.7% to 29.5% took place. Total healthcare expenditure in Germany amounted to about €356.5 billion in 2016, which equated to 11.3% of GDP, compared with €242.4 billion and 10.7% of GDP in 2005 (Statistisches Bundesamt 2018b): see Table 4[2].

Healthcare and sickness benefits are funded mainly by social contributions, with their share growing from 81.3% in 2005 to 84.5% in 2016 (Table 10), thereby clearly exceeding the EU-28 average. By far the most important budget holder for healthcare was the SHI. SHI expenditure increased from €143.8 billion in 2005 to €222.7 billion in 2016 (Annex Table A3)[3]. According to the Federal Statistical Office, total health expenditure increased in this period by 47.1%, while there was a rise of 52.5% in SHI spending and of 64.6% in SLTCI spending (see Table 4). The share of SHI in total health expenditure was 56.1% in 2005 and 58.1% in 2016; the share of SLTCI increased from 7.4% to 8.3%, while that of private health insurance (PHI) dropped slightly from 9% to 8.7%. The slight fall in PHI's share of total health expenditure (and the concurrent increase in SHI's share) can be explained by the rising number of 'good risks' (persons with above-average income, staying in good health and having no children) opting for PHI, while 'bad risks' were increasingly concentrated in SHI (Böckmann 2011). By the end of 2016, total financial reserves in SHI funds amounted to €15.9 billion plus the healthcare fund's (*Gesundheitsfonds*) reserves of around €9.1 billion (Bundesministerium für Gesundheit 2017)[4].

Demographic change and medical progress were the main drivers of expenditure growth between 2005 and 2016. To mention just one example, the number of in-patient admissions increased from 16.5 million in 2005 to 19.5 million in 2016 (Statistisches Bundesamt 2018c). The Social Code Book stipulates that expenditure of SHI funds has to be balanced by revenues over the course of a year (pay-as-you-go system - *Umlageverfahren*). If a deficit emerges or a surplus exceeds a certain level, contribution rates have to be raised (if no other measures have been taken or proved successful) or lowered.

[2] According to OECD statistics, per capita health expenditure in Germany (in purchasing power parities) increased from USD 3,314 in 2005 to USD 5,452 in 2016 (OECD 2018).

[3] Data on total SHI expenditure provided by the Federal Ministry of Health (Annex Table A3) differ to a certain extent from those provided by the Federal Statistical Office (Table 4) as the latter do not take into account certain benefits, in particular income payments (e.g. sickness benefits).

[4] It has to be distinguished between the more than 100 SHI funds (*Krankenkassen*) and the health care fund (*Gesundheitsfonds*), where contributions are collected and distributed to the single SHI funds.

Table 4. Financing of health expenditure (absolute terms and % of total health expenditure), Germany 2005-2016

	Expenditure € billion		% total health expenditure		Change 2005-2016 %
	2005	2016	2005	2016	2005-2016
Total health expenditure	242.4	356.5	100	100	+47.1
- Federal State/*Länder*/Municipalities	13.6	16.4	5.6	4.6	+20.7
- Statutory health insurance	135.9	207.2	56.1	58.1	+52.5
- Statutory long-term care insurance	17.9	29.4	7.4	8.3	+64.6
- Statutory pensions insurance	3.6	4.5	1.5	1.3	+25.8
- Statutory accident insurance	4.0	5.6	1.6	1.6	+39.5
- Private health insurance	21.8	31.0	9.0	8.7	+42.3
- Employers	10.2	15.0	4.2	4.2	+47.4
- Private households and private not-for-profit organisations	35.5	47.4	14.6	13.3	+33.5

Source: Statistisches Bundesamt 2016 and 2018b.

On the whole, during the period in question the impact of legislation on expenditure growth in SHI was weak. The broad legal framework defining SHI benefits was left largely unchanged during this period and continued, according to Social Code Book V, to give access to those benefits regarded as effective, sufficient and necessary for treatment in the light of clinical assessment.

If legislation did have an impact on expenditure, it was through amendments introduced in order to deal with certain undesired effects of earlier reforms; for example, inadequate nurse staffing in hospitals, or overtreatment in the case of certain invasive procedures (as a result of disincentives associated with the implementation of diagnosis-related groups for hospital remuneration) (Fürstenberg, Schiffhorst 2013).

In SLTCI, which was established as a particular branch of social insurance with effect from 1996, expenditure increased considerably during the period, from €17.9 billion in 2005 to €31 billion in 2016, according to Ministry figures (Bundesministerium für Gesundheit 2018b: see Annex Table A4)). Nonetheless, in almost every year between 2005 and 2016, SLTCI recorded either revenue surpluses or only minor deficits. The contribution rate in SLTCI was raised from 1.7% in 2005 (1.95% for the childless) to 2.35% (2.6% for the childless) in 2016 (Bundesministerium für Gesundheit 2018a) and to 3.05% (3.3% for the childless) as from 2019.

In SLTCI, the effects of demographic change were even stronger than in SHI as the number of benefit recipients grew by 40.8%, from 1.95 million in 2005 to 2.75 million in 2016 (Bundesministerium für Gesundheit 2018c). Moreover, legislation adopted in 2015 introduced a new definition of being 'in need of care', leading to a significant growth in expenditure with effect from 2017, as it considerably extended the number of benefit recipients. In contrast to SHI, the benefits of SLTCI have gradually been improved since the late 2000s, extending the number of patients qualifying for SLTCI benefits, particularly for those suffering from dementia. Nevertheless, until the end of 2016, legislation had had only a minor impact on SLTCI expenditure. From 1995 to 2008 the level of benefits was not raised at all. The increases in benefits provided as from 2009 have not compensated for the previous decline in purchasing power.

1.4 Other spending functions

The share of other functions in total gross social protection expenditure declined gradually from 37% in 2005 to 32.8% in 2016, a reduction of 4.2 percentage points or 11.4% (see Table 5). These other functions of social protection differed significantly in their development during the period examined:

- **disability** benefits saw only a minimal increase in their share of gross expenditure, from 7.9% in 2005 to 8% in 2015;
- **survivors'** benefits fell by 1.7 percentage points, from 8.1% in 2005 to 6.4% in 2015;
- social benefits for **families** increased by 0.5 percentage points, from 10.9% in 2005 to 11.4% in 2015;
- **unemployment** benefits fell sharply by 3.8 percentage points, from 7.3% in 2005 to 3.5% in 2015;
- **housing** benefit fell by 0.4 percentage points, from 2.3% in 2005 to 1.9% in 2015; and
- finally, expenditure on combating **social exclusion** increased by 1.0 percentage point, from 0.5% in 2005 to 1.5% in 2015.

Table 5. Expenditure on other functions (% of total expenditure), Germany 2005-2015

Other functions	2005	2010	2015	Change 2005-2015 p.p.
Disability	7.9	7.6	8.0	+0.1
Survivors	8.1	7.2	6.4	-1.7
Family	10.9	11.0	11.4	+0.5
Unemployment	7.3	5.7	3.5	-3.8
Housing	2.3	2.3	1.9	-0.4
Social exclusion n.e.c.	0.5	0.5	1.5	+1.0
Total	37.0	34.3	32.8	-4.2

Source: Eurostat, ESSPROS database.

The strongest decline in expenditure was in unemployment benefits. At the same time, unemployment benefits were no longer financed predominantly by social contributions but rather by government revenue. German social budget data (Bundesminister für Arbeit und Soziales 2018a) show a similar picture with regard to the institutional structure of social protection for unemployed people. Between 2005 and 2015, expenditure on unemployment insurance went down by €16.9 billion, from €44.3 to €27.7 billion, while expenditure on basic income support for job-seekers went up by €14.7 billion, from €21.9 to €36.6 billion.

This development was the result of the 'Hartz Reform', a policy reform package consisting of four individual acts, which were passed by the federal legislature in 2002 and 2003 and came into force between 2003 and 2005. This reform introduced the activating welfare state paradigm into German labour market policy and included, among other things, a fundamental reform of unemployment insurance and the public employment service, and the transfer of the long-term unemployed and unemployed social assistance recipients on to a newly created benefit scheme, the basic income support for job-seekers (Knuth 2014; Hanesch 2015). As a result, the share of the unemployed protected by unemployment insurance and financed by social contributions fell, and the share of those protected by tax-funded minimum-income schemes rose. As a consequence, in 2015 the share of the registered unemployed eligible for unemployment insurance was only 31% (2005: 43%), while the share of those on the basic income support for job-seekers was 69% (2005:

57%) (Bundesagentur für Arbeit 2019). The short-term unemployed in particular have benefited from the positive development of the labour market in Germany over the past decade. On the other hand, the number of long-term unemployed individuals receiving basic income support for job-seekers has hardly fallen.

The decline of the unemployment insurance scheme has been the subject of critical debate for years. For some years now, the German Federation of Trade Unions and the Social Democratic, Green and Left parties have been discussing proposals for strengthening this safety net (e.g. Arbeitskreis Arbeitsmarktpolitik 2018). A very first step was taken by the current governing coalition with the Qualification Opportunities Act, which came into force on 1 January 2019. It facilitates access to unemployment insurance benefits by extending the framework period for accumulating the necessary 12 months' minimum contribution period from 24 to 30 months, a regulation that will not enter into force before 2020.

2 Current mix and past changes in the sources of financing social protection

2.1 Main characteristics

Insurance contributions have traditionally played a pivotal role in the German system of social protection. Social insurance contributions are basically financed in equal shares by employees and employers, apart from statutory accident insurance (SAI), where contributions are paid by employers only. In 2016, the SPI contribution rate was 18.7% of gross earnings, for SHI 14.6% (plus an additional contribution rate amounting to 1.1% on average), for SLTCI 2.35% (2.6% for childless persons) and for statutory unemployment insurance (SUI) 3%. Until the end of 2018, the additional SHI contribution had to be borne by employees only. In 2016, the upper limit for assessing contributions was gross earnings of €74,400 per year for SPI and SUI, and €50,850 for SHI and SLTCI. Contribution rates are expected to increase in the coming decades due to demographic change (SHI and SLTCI) and medical progress (SHI). Projections for future contribution rates differ considerably. As far as SPI is concerned, an upper limit for the contribution rate has been fixed by law, at 20% in 2025 and 22% in 2030. If more funds are required, tax-funded subsidies will have to be increased or benefits cut. The future development of SUI contribution rates depends mainly on developments in the labour market.

In 2015, insurance contributions were by far the most important source of financing for social protection (64.3%), followed by general government contributions, which accounted for 33.8%. Between 2005 and 2015, the share of general government contributions fell slightly (by 0.9 percentage point), while at the same time the share of social contributions rose (by 1 percentage point) (see Table 6). Between 2005 and 2016, only the financing of SHI changed to a certain extent, as tax-based subsidies were introduced in 2004: they had increased by 2016 to €14 billion, accounting for 6.2% of total SHI revenues (see Annex Figure A1).

Social security tax expenditure consists of allowances or concessions that reduce the amount of tax payable, and accordingly are equivalent to social benefits in transferring income to those concerned. In Germany its share of GDP (1%) was in 2013, along with France, the highest in the EU-28 (according to ESSPROS data). This can be traced back to the fact that tax allowances for private insurance, particularly for private pensions insurance, have been increased at the same time as social insurance benefits have been cut.

Table 6. Division of financing for net social protection expenditure by main source, (% of total financing), Germany and EU-28, 2005-2015

	2005			2010			2015		
	Social contrib.	General govt. contrib.	Other	Social contrib.	General govt. contrib.	Other	Social contrib.	General govt. contrib.	Other
Germany	63.3	34.7	2.0	61.3	36.9	1.9	64.3	33.8	1.9
EU-28	58.7	37.8	3.5	57.9	37.0	6.2	55.3	38.7	6.0

Source: Eurostat, ESSPROS database.

Table 7. Breakdown of social contributions by employers, employees, self-employed and benefit recipients (% total financing), Germany 2005-2015

	2005	2010	2015
Employers	35.1	33.4	34.5
Employees	22.6	21.8	23.0
Self-employed	1.3	1.7	1.7
Benefit recipients	4.3	5.7	5.9

Source: Eurostat, ESSPROS database.

2.2 Pensions

The German pension system is very heterogeneous and fragmented (Directorate-General for Employment 2018: Schmitz 2017; Kröger 2011, p. 383; for self-employed people see Fachinger, Frankus 2015). Besides the main scheme (SPI), there are several schemes for specific occupational groups, in particular civil servants (1,788,100 members as at 30 June 2014 and about 1.25 million pensioners as at 1 January 2015), the liberal professions (doctors, pharmacists, architects, notaries, lawyers, tax consultants, veterinary surgeons, chartered accountants, dentists and psychotherapists) and farmers. These groups have their own pension schemes with differing financing arrangements (Directorate-General for Employment 2018). For example, whereas civil servants' pensions are financed mainly out of taxation in a pay-as-you-go system, the systems for the liberal professions (974,849 members as at 31 December 2016) are financed by earnings-related premiums and a method known as open capitalisation. However, despite the fundamental differences in the financing structure of the pension systems and the various challenges that arose over the period examined, such as the financial crisis, no major changes occurred in either the level or sources of financing. Overall, the main changes in financing – especially of the SPI – took place before the period examined, which therefore more or less exhibited a picture of continuity.

The data in Table 8 show a gradual increase in the share of social contributions in the financing of old-age benefits, and a concomitant fall in the shares of other sources. Social contributions are paid by employers, employees, the self-employed and benefit recipients. Thus it is of interest whether the rise in the share of social contributions was evenly spread over the different groups or whether the burden on specific groups rose.

Table 8. Division of financing of old-age benefits by main source (% total financing), Germany 2005-2015

Year	Social contributions	Government revenue	Other receipts
2005	63.6	28.9	7.5
2008	66.4	28.4	5.2
2010	66.0	28.1	5.9
2015	66.5	28.0	5.5

Source: Spasova and Ward (2019), Annex ESSPROS tables.

In Table 9 the contributions paid by each group are shown separately (as a percentage of total financing). As can be seen, only the contributions for employees and the self-employed increased during the period examined. Whereas the rise in the contributions paid by the self-employed reflected more or less the increase in self-employment, the increase in employee contributions, combined with the fall in employer contributions, indicated a shift in the burden from employers to employees. The share of employee contributions was 4.2 percentage points (i.e. 19%) higher in 2015 than in 2005, whereas that for employer contributions was 1.6 percentage points (i.e. 4.1%) lower. This shift can be seen as a success for the economic and social policy pursued by successive federal governments since 2000, since their main goal has been to lower labour costs and to reduce the financial burden on the federal state. It was accepted that the social protection provided by the statutory pension insurance would be reduced (see also Section 3.2).

Table 9. Breakdown of financing of old-age benefits by social contributions by sub-category (% total financing), Germany 2005-2015

Year	Employers	Employees	Self-employed	Benefit recipients	Total
2005	39.1	22.1	2.0	0.4	63.6
2008	39.2	24.9	2.0	0.4	66.4
2010	38.6	24.9	2.1	0.4	66.0
2015	37.5	26.3	2.3	0.4	66.5

Source: Spasova and Ward (2019), Annex ESSPROS tables.

However, the data have to be interpreted carefully. The data on employer contributions include imputed contributions, especially for civil servants (Eurostat 2017). Unfortunately, the amount of the imputed contributions for old-age pensions is not noted separately. However, it can be assumed that they increased over the period examined, as the number of civil servant pensioners increased from 968,100 (2005) to 1,234,000 (2016) (Statistisches Bundesamt 2018a, p. 74). It stands to reason, therefore, that the contribution rate for employers in private industry fell even more.

Additionally, self-employed artists and publicists paid only half of the contributions (9.3% in 2017; 177,198 insured people as at 31 December 2016; Bundesministerium für Arbeit und Soziales 2018). The other 50% was financed by the federal state (20%) and by clients (30%) (*Künstlersozialabgabe*: 5.8% in 2005 and 5.2% in 2016; Künstlersozialkasse 2018). The contributions of clients in 2016 totalled about €307 million, while the government contributed around €191 million.

The main underlying reason for the stability of the financing structure was the paradigm shift that started in 2001 (Schmähl 2004; Schmitz 2017). The pension structure reform act (the so-called 'Riester' reform), which came into effect in 2002, included the partial decoupling of SPI uprating from wages. At the same time, the principle of a relative standard of living through statutory old-age provision was abandoned. Since then, the primary policy goal has been to make the SPI contribution rate financially sustainable. This paradigm shift included a reduction in the financial burden on employers and government and the introduction of a new public-private mix for the financing of pensions. It can also be seen as a change in the SPI from a defined-benefit to more of a defined-contribution system, with the pension level becoming the dependent variable (Schmähl 2004, p. 173).

As far as the financial structure is concerned, the most significant changes have been the subsidising of private savings as an explicit substitute for the SPI and, concomitantly, the partial replacement of pay-as-you-go financing by capital funding. Private savings are subsidised in two ways (Schmitz 2017, p. 7):

- earnings conversion: a maximum 4% of earnings up to the SPI contribution ceiling[5] is exempted from taxes and contribution payments; and
- up to 4% of net earnings can be exempted from income tax when saved in special certified pension products (the so-called 'Riester' pensions).

The overall intention was that individuals should save 4% of their net earnings if they wanted to compensate for the reduction in the level of the pensions paid out under the SPI scheme and to maintain their living standard during retirement. However, these savings are not counted as social contributions and are therefore not recorded in official statistics such as ESSPROS or the German social budget. The shift within the public-private mix of financing for old-age pensions appears as a decline in expenditure and revenue in social security data.

As a consequence of the Riester reform, the level of pensions relative to the earned income of the active population started to decline and the number of people, especially women, in receipt of small and inadequate pensions continuously increased. The foreseeable increase in the risk of old-age poverty led in 2003 to the introduction of the 'needs-based pension supplement in old age and in the event of reduced earning capacity', which since 2005 has been part of Social Code Book XII. This tax-financed benefit scheme is part of the German minimum-income system and provides means-tested benefits for older citizens and adults with reduced earning capacity. In 2016, 1.026 million people (among them 0.526 million elderly individuals) were claiming this benefit, compared with 0.526 million (0.293 million) in 2005.

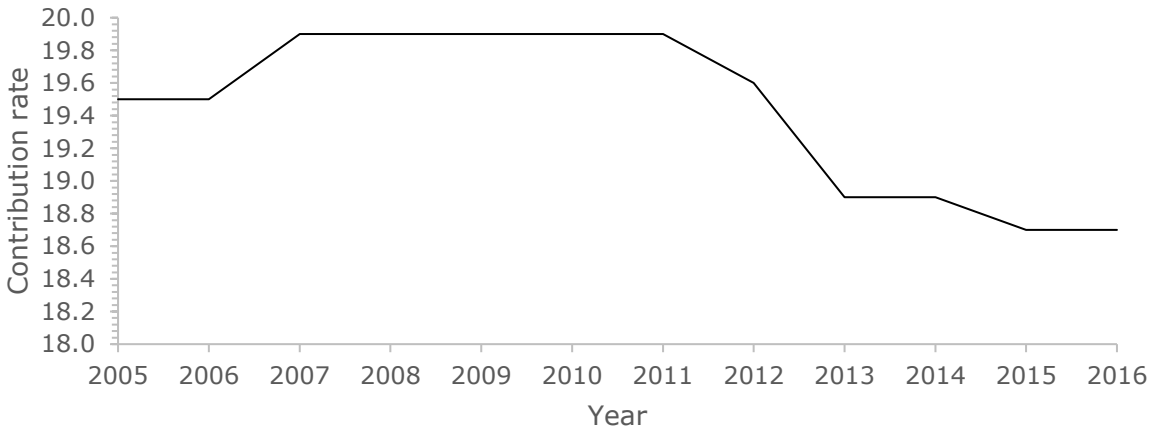
Besides the switch from the public to the private sector, another measure was introduced in order to reach the goal of reducing the increase in the contribution rate, or rather to keep it more or less constant. In 2005 the Pension Insurance Sustainability Act (*RV-*

[5] The ceiling is twice average gross earnings.

Nachhaltigkeitsgesetz) came into force. In order to limit the increase in the contribution rate, two ceilings were set. The contribution rate should not exceed 20% of gross earnings in 2020 and 22% in 2030[6].

However, these adjustments had only minor effects, if any at all, on the financing structure of the pension system. On the contrary, the main reason for the legislation was to keep the financing structure unaltered. Nevertheless, the contribution rate itself changed over the period examined, as is shown in Figure 1 (and Annex Table A2). It reached its peak in the years 2007 to 2011 and declined thereafter to 18.7% in 2016. Thus the policy goal was more than fulfilled.

Figure 1. Contribution rate of SPI %, Germany 2005-2016



Source: Deutsche Rentenversicherung Bund 2018, p. 258.

During the period examined, the upper contribution ceiling rose from €4,400/month to €5,400/month in the East German *Länder* and from €5,200/month to €6,200/month in the West German *Länder*, whereas the lower contribution ceiling[7] was only changed once: in 2013, from €400/month to €450/month in all *Länder* (see Annex Table A5). The upper contribution ceiling was adjusted in line with the rate of change in average monthly gross wages per capita for the previous two years. Hence, the evolution of the upper contributions ceiling was stable.

There are several reasons for the decline in the contribution rate, but the main ones are the reduction in the SPI pension level[8] and the rise in the number of statutorily insured employees from 25.4 million in 2005 to 30.5 million in 2016 (Deutsche Rentenversicherung

[6] To reach this goal the formula for the calculation of the 'current pension value' (*Aktueller Rentenwert*) was changed. In principle, the annual pension adjustment is linked to the evolution of wages but adjusted for, i. e. multiplied by:

- the so-called 'Riester' factor

$$\text{Riester factor} = \frac{100\% - 4\% - CRP_{t-1}}{100\% - 4\% - CRP_{t-2}}$$

where

CRP_{t-1} = contribution rate for SPI of last year, and

CRP_{t-2} = contribution rate for SPI of the year before last year.

- the ratio of total SPI expenditure to total SPI receipts (sustainability factor).

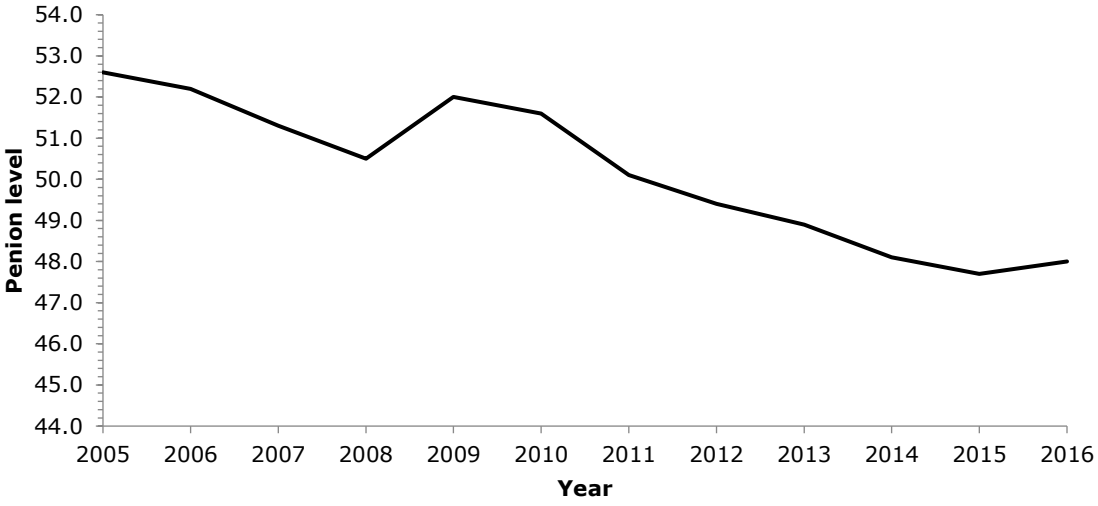
The linking of the annual pension adjustments to wages is modified by multiplying it by both factors. This means that an increase of the contribution rate and/or of the expenditure in relation to the receipts will reduce the pension adjustment.

[7] Income below this ceiling is exempt from contribution payments.

[8] The ratio of standard pension to earnings, both reduced by social contributions for health and long-term care insurance, but not by taxes. It is known as the net pension level before taxation (*Rentenniveau (nominal) netto vor Steuern*).

Bund 2018, p. 32). As a consequence, the pension replacement rate fell by 8.7% overall during the period examined, from 52.6% to 48% (Figure 2 and Annex Table A1).

Figure 2. Pension level* by SPI %, Germany 2005-2016



** = The ratio of standard pension to earnings, both reduced by social contributions for health and long-term care insurance, but not by taxes.*
Source: Deutsche Rentenversicherung Bund 2018, p. 258.

However, the data have to be interpreted carefully. For example, the SPI contribution rate of 18.6% in 2018 was equally divided between employees and employers; that is, 9.3% for each. However, it is estimated that employees paid an additional 4% into private or occupational pension schemes. These entitlements are taken into account by calculating the official replacement rate (Bundesministerium für Arbeit und Soziales 2018b). However, the other side of the coin should also be considered; that is, the contributions required to reach the official replacement rate. In other words, not only should mandatory SPI payments be taken into account but also the voluntary contributions made to additional private or occupational insurance schemes in order to compensate for the reduction in the SPI pension level – and to maintain the living standards that prevailed before the paradigm shift. Hence the contribution rate for employees would be 9.3% plus 4%, whereas the contribution rate for employers would remain at 9.3%. However, the assumption that the reduction in the level of the statutory pension will be compensated for by additional private cover provided via occupational pensions or the tax-privileged 'Riester' pensions has proved unrealistic. Not only is the uptake of these two supplementary schemes lower than expected but it is also concentrated among two groups (Viebrok, Himmelreicher, Schmähl 2004; Joebges et al. 2012; Corneo, Schröder, König 2015), namely high earners with the least need for additional cover via tax reductions and low earners with large families who take advantage of the various financial allowances available to them.

2.3 Sickness, healthcare and long-term care

The enormous importance of social contributions in the German social protection system is particularly apparent with regard to sickness benefits and healthcare. According to ESSPROS data, the share of contributions in the total financing of health benefits was already 81.3% in 2005, and went up further to 84.5% by 2015 (see Table 10). The breakdown of social contributions by sub-groups shows the following picture: in 2015, employers accounted for 41.3%, employees 26%, the self-employed 2% and benefit recipients 15.1%, of the financing of healthcare, sickness and long-term care benefits. These shares had remained largely unchanged since 2005, apart from a significant increase in the share contributed by the self-employed (see Table 11).

Table 10. Division of financing of healthcare, sickness benefits and long-term care benefits by main source (% of total financing) Germany 2005-2015

Year	Social contributions	Government revenue	Other receipts
2005	81.3	5.2	13.5
2008	83.7	5.1	11.3
2010	81.3	9.2	9.5
2015	84.5	6.7	8.8

Source: Eurostat, ESSPROS database.

Table 11. Breakdown of financing of healthcare, sickness benefits and long-term care benefits by social contributions by sub-category (% of total financing) Germany 2005-2015

Year	Employers	Employees	Self-employed	Benefit recipients	Total
2005	41.0	25.6	0.7	14.0	81.3
2008	43.2	26.3	0.7	13.5	83.7
2010	38.4	25.1	2.2	15.6	81.3
2015	41.3	26.0	2.0	15.1	84.5

Source: Eurostat, ESSPROS database.

In addition, according to national data, in 2016 around 80% of total health expenditure was financed by social contributions (SHI, SLTCI, SAI, SPI) and private contributions (PHI), the latter consisting of mandatory contributions for PHI and for voluntary supplementary private health insurance by members in addition to SHI and PHI (see Table 4). Between 2005 and 2016, the average SHI contribution rate was raised from 14.6% to 15.7% (Bundesministerium für Gesundheit 2018a).

The financing of SHI underwent some changes between 2005 and 2016. Firstly, employers were relieved of some of their financial burden by the shifting of it to insured persons. With effect from 1 July 2005, insured persons had to pay a special contribution of 0.9% of their gross salaries. Thus the principle of equal payments for employers and employees had been abandoned. Moreover, in 2009 the then Grand Coalition introduced an additional contribution to be paid by insured persons only, as there was a risk that the revenue from general contributions might not be sufficient for every SHI fund to cover total expenditure. In 2016, the compulsory health insurance contribution rate was fixed at 7.3% for both employers and employees and applied to all SHI insurance funds (*Krankenkassen*). This additional contribution was intended not only to reduce the burden on employers but also to serve as a parameter for SHI funds when competing for patients. The additional contribution underwent reform on several occasions between 2010 and 2018. In 2016, the average additional contribution rate across all funds was 1.1%, with employers paying 7.3% and employees 8.4% of gross wages (Gerlinger, Greß 2018). It is only in 2019 that equal payment of SHI contributions has been restored, as the Social Democratic Party pressed for reform in order to re-emphasise its social profile. The special contribution was abolished as from 2015, and the additional contribution has had to be divided equally between employers and employees since 1 January 2019.

Secondly, legislation passed in 2004 significantly raised co-payments for SHI benefits. Co-payments usually amount to 10% of the cost per prescription, with a minimum of €5 and a maximum of €10. In-patients have to pay a maximum of €10 per day for 28 days per year. Additionally, between 2005 and 2012, SHI patients had to pay a so-called 'practice fee' for their first consultation with a doctor in a quarter and for each further consultation with a specialist without referral, in order to reduce the number of consultations ('doctor hopping'). There is an annual limit on co-payments of 2% of annual income (gross earnings plus additional revenues) for every insured person and of 1% for the chronically ill. Services are free of charge for children up to age 18. Total co-payments increased to €5.45 million

in 2005, but subsequently dropped to €3.87 million in 2016 (Deutscher Bundestag 2017, p. 4); that is, on average almost €55 per insured person and less than 2% of total SHI expenditure. Co-payments fell due to the removal of the practice fee as from 2013.

Though co-payments fell during the period in question, it has to be highlighted that other forms of private purchase gained significantly in importance, particularly deductibles and out-of-pocket payments for dentures and dental care. Moreover, out-of-pocket payments for so-called 'individual health services' (*Individuelle Gesundheitsleistungen – IGEL*) have increased. Individual health services encompass medical examinations and treatments not reimbursed though SHI. Such services have to be paid for in full by patients, in most cases because their benefit is unproven, side effects are unacceptable or the reason for examination or treatment is not classified as disease. Expenditure on deductibles or out-of-pocket payments for dentures and dental care and other (former) SHI benefits (e.g. aids, glasses) is difficult to estimate but it is presumed to have risen significantly since the beginning of the 2000s. Out-of-pocket payments for individual health services were estimated at €1.5 billion in 2010 (Schnell-Inderst et al. 2011), accounting for 0.9% of total SHI benefits expenditure. The annual sum of co-payments for SHI patients is limited to 2% of their annual income and to 1% for the chronically ill. However, enforcing their co-payment limit turns out to be difficult for many patients. They have to collect the receipts, submit them to their health insurer and apply for a certificate of exemption from further co-payments (until the end of the year) or for reimbursement of overpaid sums.

Thirdly, as from 2004, SHI has been in receipt of federal state subsidies intended to finance services required by society as a whole (e.g. medical treatment for children). The total sum of these subsidies increased from €2.5 billion in 2005 to €14 billion in 2016; that is, 6.2% of total SHI expenditure (Bundesministerium für Gesundheit 2018d). Federal state subsidies for SHI are not determined by statutory regulations but are decided annually by the Federal Parliament (Bundestag). They grew significantly during the financial market crisis in order to avoid burdens on employers that might restrict competitiveness and to prevent reductions in employees' purchasing power. If state subsidies had not been increased, the deficit would have had to be made good by higher employer and employee contributions. In order to achieve these objectives a temporary rise of the national debt was accepted. This policy instrument was in line with a set of other measures embodying a sort of Keynesian-type crisis management (e.g. the so-called 'wreck bonus' – *Abwrackprämie* – which was introduced to subsidise the purchase of new cars in order to stabilise demand in the automobile industry). This contrasted sharply with the instruments deployed in the heavily indebted EU member states (e.g. Greece). The positive economic and employment trends, as well as rising wages, following the financial market crisis enabled the federal state to maintain subsidies at the previous level. In 2016, SHI funds were running surpluses amounting to around €1.7 billion (see Annex Tables A3 and A4). Total financial reserves (both the health funds and the statutory health insurers) amounted to almost €20 billion.

The main drivers for relieving employers of the financial burdens imposed by SHI were the government objectives of maintaining or improving the competitiveness of German enterprises and avoiding a rise in labour costs, which were presumed to be having a negative impact on investment in Germany. This objective notwithstanding, cuts to the SHI benefits catalogue were not as severe as those to pensions and unemployment benefits. This presumably reflects the fact that the health system is a key driver of economic growth and employment. By the end of 2016, around 5.49 million (2005: 4.37 million) people were either employed or self-employed in the healthcare system, equating to 11.9% of total employment and an increase of 25.5% over 2005 (Statistisches Bundesamt 2018d). The federal government emphasised the healthcare sector's importance to the German economy and sought to avoid measures that might restrict its growth. Furthermore, the federal government tends to regard the healthcare sector as contributing not only to social security but also to competitiveness and growth in other sectors and in the economy as a whole, particularly in the light of demographic change. From this perspective, investing in health allows people to stay in better health for longer, thus reducing the financial pressure on healthcare systems and at the same time raising the productivity of the workforce. Healthy ageing may also extend working lives and

increase the willingness and ability of older people to be active as carers or volunteers. Thus improving the quality of the healthcare system may be characterised as part of a social investment strategy, which is also being pursued by the European Commission.

Apart from federal subsidies for SHI, the state is involved in the financing of healthcare by other means. The *Länder* are obliged to safeguard hospital provision by financing investment in hospitals; that is, bearing the costs of hospital building and hospital modernisation, including the purchase of major items of medical equipment. Over the last 25 years, however, none of the *Länder* has met these obligations adequately. Between 2005 and 2016, the nominal amount of legally required investment in hospital infrastructure increased only slightly, from €2.70 to €2.76 billion, and fell as a share of GDP (from 0.12% to 0.09%) and adjusted for price changes (Rosenbrock, Gerlinger 2014; Statistisches Bundesamt 2018e). Thus, a huge investment gap has emerged, estimated at €2.8 to €3.9 billion per year (Augurzky 2017; see also Deutsche Krankenhausgesellschaft 2018).

SHI is for the most part financed by income-based contributions collected from employees and employers. An (upper) income threshold (2016: €4,237.50 per month) limits the amount to be paid by employees and employers. Thus, for those insured persons whose earnings extend beyond this income threshold the financial burden is progressively reduced.

In contrast to SHI, SLTCI does not receive any state subsidies but is fully financed by social insurance contributions paid equally by employers and employees. The benefits provided (home care cash benefits as well as benefits in kind in the formal, professional sector) are not sufficient to cover all care needs (Paquet, Jacobs 2015). Hence the share and level of private co-payments in SLTCI are very high compared with SHI. In 2014, the private costs of long-term care totalled €17.13 billion (36.6% of total expenditure on long-term care) (Rothgang et al. 2016: 135). In May 2017, benefit recipients had to pay €1,691 per month on average for residential care (Rothgang et al. 2017: 30).

If SLTCI benefit recipients are not able to contribute to their care costs, they are entitled to social welfare grants. Initially, the introduction of SLTCI considerably reduced the number of recipients depending on these grants. Between 1994 (the last year before SLTCI was introduced) and 1998, it fell by 48.7%, from 563,000 to 289,000, but rose again from 344,000 in 2005 to 440,000 in 2016 (Statistisches Bundesamt 2015 and 2018f). Thus those in need of care still include a number of social welfare grant recipients. In the light of forecasts of rising poverty among the elderly (Bertelsmann Stiftung 2017), this problem is set to get worse. Moreover, irrespective of the recent increase in benefits, their purchasing power has declined considerably since SLTCI was established. Between 2005 and 2016, gross expenditure on social welfare grants for SLTCI recipients increased from €3.15 billion to €4.33 billion (Statistisches Bundesamt 2018g).

The regulations governing PHI differ significantly from those governing SHI. Civil servants *(Beamte*), the self-employed and high earners (2016: above €4,687.50 per month, adjusted annually) can opt for PHI or SHI. The costs are borne (in whole or in part) by their insurance scheme (cost-reimbursement principle). For some years now, the level of expenditure per PHI member has been increasing at a faster rate than in SHI. One reason for this development is the fact that a private insurance scheme has no influence over volumes and prices in the different sectors of the healthcare system.

Those groups allowed to choose between the two systems will opt for SHI or PHI according to their perceived individual advantage. PHI premium levels depend only on the individuals' health risk and age, their income being irrelevant. Moreover, children and spouses with no income have to be insured individually in PHI but are co-insured at no extra cost in SHI. Therefore, as a rule, 'good risks' – that is, younger and healthy people, particularly if they are single or childless – will presumably opt for PHI, since the contributions are much lower than the income-related contributions to SHI. 'Bad' risks, on the other hand – that is, people in poor health or with large families – will prefer to join SHI. The result is a kind of cherry-picking arrangement on the part of PHI (Jacobs, Schulze 2013).

As PHI contributions rise with age, many older individuals have to pay high contributions. Thus, with effect from 2009, a new scheme was introduced in PHI, the so-called 'basic tariff' (*Basistarif*). Privately insured persons are permitted to switch from their regular PHI scheme to this basic tariff. In this scheme, benefits are paid according to the principles of SHI and insurance contributions are limited to the SHI maximum contribution. In contrast to the regular private scheme, insurers have to accept applicants without any risk assessment. Moreover, if the basic tariff contribution turns out to exceed the financial resources of the insured person, the insurer is obliged to subsidise it to a certain degree.

2.4 Other spending functions

The evolution of the financing of other spending functions was highly variable (see Table 12).

- Survivors' benefits were, and still are, mainly financed by social contributions. The share of social contributions went up by 3.4 percentage points, from 58.4% in 2005 to 61.8% in 2015, while the share of government payments went down by 1.1 percentage point, from 33.7% in 2005 to 32.6% in 2015; other receipts went down by 2.3 percentage points, from 7.9% in 2005 to 5.6% in 2015.
- Disability benefits were, and still are, mainly financed by social contributions. The share of the latter went up by 1.4 percentage point from 55.9% in 2005 to 57.3% in 2015, while the share of government payments went down by 0.3 percentage point, from 39.1% in 2005 to 38.8% in 2015; the share of other receipts went down by 1.1 percentage point, from 5% in 2005 to 3.9% in 2015.
- Unemployment benefits were predominantly financed by social contributions. However, the share of the latter went down by 5.7 percentage points, from 60.5% in 2005 to 54.8% in 2015. In the same period, the share of government payments went up by 9.8 percentage points, from 34.1% in 2005 to 43.9% in 2015; other receipts went down by 4.2 percentage points, from 5.4% in 2005 to 1.2% in 2015.
- Family benefits were mainly financed by government: its share went up by 1.8 percentage points, from 93.6% in 2005 to 95.4% in 2015. At the same time, the share of social contributions fell slightly, from 3.8% in 2005 to 3.6% in 2015, while other receipts declined by 1.7 percentage points, from 2.6% in 2005 to 0.9% in 2015.
- Housing benefits were also financed mainly by government: its share went up by 9 percentage points, from 90.9% in 2005 to 99.9% in 2015. Social contributions play hardly any role (0% in 2005 and 0.1% in 2015) and other receipts also declined sharply in importance, from 9% in 2005 to 0% in 2015.
- Benefits to fight social exclusion were financed predominantly by government revenue: its share went up by 0.6 percentage point, from 99.3% in 2005 to 99.9% in 2015. At the same time, social contributions went down by 0.6 percentage point, from 0.7% in 2005 to 0.1% in 2015. Other receipts made no contribution at all over the whole time period.

Table 12. Division of financing of other functions by main source in % of total financing, Germany 2005-2015

	2005	2010	2015	Change 2005-2015 p.p.
Disability				
Social contributions	55.9	54.1	57.3	+1.4
Govt. revenue	39.1	41.3	38.8	-0.3
Other receipts	5.0	4.6	3.9	-1.1
Survivors				
Social contributions	58.4	61.0	61.8	+3.4
Govt. revenue	33.7	32.7	32.6	-1.1
Other receipts	7.9	6.3	5.6	-2.3
Family				
Social contributions	3.8	3.7	3.6	-0.2
Govt. revenue	93.6	95.2	95.4	+1.8
Other receipts	2.6	1.2	0.9	-1.7
Unemployment				
Social contributions	60.5	37.6	54.8	-5.7
Govt. revenue	34.1	56.7	43.9	+9.8
Other receipts	5.4	5.7	1.2	-4.2
Housing				
Social contributions	0.0	0.0	0.1	+0.1
Govt. revenue	90.9	90.5	99.9	+9.0
Other receipts	9.0	9.5	0.0	-9.0
Social exclusion				
Social contributions	0.7	0.3	0.1	-0.6
Govt. revenue	99.3	99.7	99.9	+0.6
Other receipts	0.0	0.0	0.0	0.0

Source: Eurostat, ESSPROS database.

Overall, the financing structure varied between those areas that were predominantly contribution-financed (disability, survivors, unemployment) and those that were primarily tax-financed (family, housing, social exclusion). The share of the dominant form of financing in each area increased between 2005 and 2015. Nevertheless, there was no fundamental shift in the financing structure during the period examined.

3 Strengths and weaknesses of the existing mix of financing options and potential future sources of financing – national debate on the topic

3.1 Main characteristics

All in all, the main strength of the social insurance system in Germany is the equal payment of contributions by employers and employees to the various insurance schemes: pensions, healthcare (being restored as from 2019), long-term care and unemployment[9]. Equal payment means that employers will automatically pay the increases in contribution rates that, it is to be assumed, will be necessary in the coming decades. Furthermore, earnings-related social insurance contributions are to be seen as a major strength, since the financial burden on insured persons is, in principle at least, commensurate with their ability to pay, even though this principle is not always upheld, as the existence of an upper threshold for contribution assessments shows (see Annex Table A5).

On the whole, there are strong redistributive effects in SHI as access to services is guaranteed by law according to individual need regardless of the contributions being paid. Redistributive effects are lower in SLTCI, because insured individuals must bear a high share of the costs themselves. And they are lower in SPI and SUI, as the benefits granted here are, basically, equivalent to the contributions being paid.

Finally, the pay-as-you-go system (see Section 1.3) for funding social insurance helps to maintain the stability of expenditure on social protection. Of course, a social insurance-based welfare state is vulnerable, as is any other type of financing, to an ongoing increase in unemployment, be it as a result of an economic downturn of the medium- or long-term impact of digitisation. The risk of non-payment of contributions is, in general, low, as social insurance is obligatory for employees. Nevertheless, as social insurance contributions are quite high, there is an incentive not to declare work. Administrative costs used to be low in all social insurance branches, as contributions are mandatorily deducted at source by employers.

However, the financing system does have some weaknesses. Contributions to social insurance are determined by wage levels, not the added value of a particular industry or enterprise. Thus, relative to the value they create, labour-intensive enterprises or industries where productivity is below average pay a higher share of their revenues in social insurance contributions (Huchzermeier, Rürup 2018). Moreover, with regard to burden-sharing among the insured, the fact that the level of an individual's social insurance contributions is determined solely by their income from gross wages has often been criticised for not taking into account income from other sources (e.g. capital or rent) (Rosenbrock, Gerlinger 2014; Rothgang, Domhoff 2017). Thus, the principles on which increases in contributions are based are frequently perceived to lack fairness.

These aspects used to be a subject for debate in the past but have currently dropped off the agenda. As they affect the fairness of payment burdens, and reform would relieve labour-intensive branches or enterprises of some of the burden of social insurance contributions, it might be worth resuming the debate. The Federal Ministry of Labour and Social Affairs recently published a short report on 'the value-added tax as a possible financing component of social security in Germany' (Bach et al. 2017), but a new debate has not yet got under way.

3.2 Pensions

The financing of the pension system in Germany (apart from the civil servants' scheme) has always been based predominantly on the equivalence principle. For the SPI – which has always been the focal point of the pensions debate – contributions are paid by

[9] SAI, on the other hand, is designed as a pure employer levy, the aim being to encourage employers to make the efforts required to maintain secure jobs and working conditions.

employers and employees, and the non-insurance benefits are paid out of taxation[10]. The main goal of the SPI was traditionally the replacement of earnings to maintain previous living standards after retirement, therefore the benefits were earnings-related. Due to the paradigm shift it is no longer possible to secure the former standard of living through the SPI alone and the number of people in the minimum-income scheme is rapidly increasing. As a result, the problem of gaps in pension insurance have become even more obvious (Becker 2012).

Since it has become increasingly obvious that the pension reforms will lead to a steady increase in old-age poverty, the debate on a basic pension has intensified (Schmitz 2018). The question of how to deal with people with low pensions from the statutory scheme, and how to prevent or reduce old-age poverty, has been raised time and again in the pension policy debate. The proposal for a basic pension has played a central role in this debate (Schmähl 2009)[11]. The range of supporters currently extends from the Social Democratic, Green and Left parties to members of the liberal (FDP) and conservative (CDU/CSU) parties, and includes trade unions and welfare associations as well as economists and others. Various proposals have been put forward, ranging from a total system change – for example, a tax-funded basic pension system for all – to a modification of the SPI that would add certain elements, such as a minimum pension to be paid under special conditions (Schmähl 2009). The recent coalition agreement and the current proposal, presented by the Federal Minister of Labour and Social Affairs in February 2019, according to which low pensions will be supplemented by an additional pension of up to €447 per month, have reheated this debate.

The introduction of a basic pension may alter the SPI financing structure, as maintaining contribution rate stability remains the main goal. For example, in order to stabilise the contribution rate, the most recent legislation provide for the payment of special government grants to the SPI (*Gesetz über Leistungsverbesserungen und Stabilisierung in der gesetzlichen Rentenversicherung (RV-Leistungsverbesserungs- und –Stabilisierungsgesetz*: SPI Improvement and Stabilisation Act)). From 2022 to 2025, an additional €500 million per year will be paid by the government, making a total of €2 billion of additional government revenues by 2025.

Thus, if a basic pension is to be introduced, it can be assumed that the contribution rate will remain the same in order, among other things, to keep labour costs at their current level and not undermine the economy's international competitiveness. Consequently, a basic pension may well be financed largely out of taxation.

Another debate around the SPI and the potential increase in old-age poverty concerns the hybridisation of the labour market, and particularly the growth of the platform economy, and the rise of self-employment. The coalition agreement provides for a mandatory insurance scheme within the SPI for self-employed people who are not covered by a pension system and with the possibility of an opt-out (CDU, CSU and SPD 2018, p. 93). Under what conditions an opt-out will be possible is not specified. There is nothing in the agreement about the financing structure. It remains to be seen how the financing will be organised. The model preferred by the trade unions – especially ver.di – is that of the social insurance scheme for artists and publicists (*Künstlersozialversicherung = KSV*). 50% of KSV expenditure is financed by artists and publicists, 30% by companies that engage the services of artists or publicists, and 20% by the federal government.

In May 2018 the 'Pension Commission on the Reliable Generational Contract' (*Rentenkommission 'Verlässlicher Generationenvertrag*) was appointed by the Federal Minister of Labour and Social Affairs. The Commission will publish its report, including proposals for financing old-age pensions, in the spring of 2020. It remains to be seen

[10] Non-insurance benefits are benefits the entitlements to which are not based on the payment of contributions, such as maternity benefits or those for informal carers; that is, those caring for people in need of long-term care.

[11] The German SPI did have certain minimum income elements. However, these were gradually reduced in order to strengthen the equivalence principle.

whether permanent changes will be made to the financial structure of the SPI in the near future.

As far as the further development of the old-age pension system is concerned, the following reforms are to be recommended.

(1) To avoid the steady increase in old-age poverty, the pension level should at least be held constant for the future. Ultimately, this will require a change in the adjustment formula and the abolition of the upper ceiling on the contribution rate. Overall, as the main goal of the old-age pension system is to maintain an adequate living standard during retirement, the political norm of a constant contribution rate is to be questioned and possibly even abandoned.

(2) To tackle the consequences of labour market hybridisation, a mandatory insurance scheme for the self-employed within the SPI might be required. This would also help to reduce the increase in old-age poverty, since a large proportion of the self-employed are low earners with few assets. Many of the self-employed are not covered by the SPI (Fachinger 2017) and do not have adequate private provision for their old age either (Fachinger, Frankus 2015).

(3) Instead of subsidising private and occupational pensions, which are not well targeted policy measures as already noted above, the financial resources could be used to stabilise the financial structure of the SPI.

3.3 Sickness, healthcare and long-term care

With regard to healthcare, the fairly comprehensive coverage of SHI, at least compared with other schemes in the European Union, may be regarded as a strength; though deductibles, particularly for dentures and dental care, are high.

Nevertheless, major weaknesses continue to exist, as follows.

(a) The divide between SHI and PHI is giving rise to a whole range of problems. The dual health insurance system allows people with, on average, higher incomes and lower health risks not to contribute to the collective financing of SHI. The SHI-PHI divide allows those persons enjoying the freedom of choice between the two systems to decide according to their perceived individual risk. Moreover, various studies show that SHI members experience significantly longer waiting times than PHI members, even for urgent appointments, because in out-patient care remuneration for PHI members is considerably higher than that for SHI members. Last but not least, it is giving rise to regional inequalities in healthcare (e.g. trends towards an undersupply in some disadvantaged areas, see below).

(b) Co-payments and deductibles for SHI benefits place a burden on the sick and may be a barrier to accessing healthcare, particularly for people on low incomes.

c) The level of federal state subsidies for SHI is not determined by statutory regulations but is decided annually by the Federal Parliament (Bundestag). This decision often appears to be arbitrary and impedes the actors involved (SHI organisations, employers, insured persons) in their financial planning.

d) Funding of SLTCI is not sufficient to cover care needs, either in terms of the cash benefits paid for home care or the benefits in kind available in the formal, professional sector. The introduction of SLTCI has considerably reduced the number of people in need of care who have had to apply for social assistance benefits (in addition to their own resources), particularly to cover the costs of in-patient care. Nevertheless, the share of recipients of SLTCI benefits who also have to claim social assistance remains stable.

e) None of the *Länder* has adequately met their legal obligation to finance investment in hospitals. Thus a huge investment gap has emerged, contributing to inefficiencies in hospital care.

In the light of these weaknesses the following reforms are to be recommended.

(1) Social and private insurance for healthcare and long-term care should be merged into a unitary people's health insurance (*Bürgerversicherung)*, based on the solidarity principle.

(2) At the same time, the (upper) income threshold for contribution assessment should be raised or even abolished and the calculation of contributions should be extended to other sources of revenues than gross wages. A unitary people's health insurance scheme, combined with a raising or removal of the income limit and an extension of the base for assessing contributions beyond gross wages, is expected to reduce contribution rates for employers and employees and to relieve the public budgets of allowances granted for the healthcare of civil servants, who are usually insured under PHI (Rothgang, Domhoff 2017).

(3) Co-payments for healthcare should be abolished, at least for people on low incomes.

(4) The criteria for determining the level of state subsidies for the healthcare sector should be defined by law in order to ensure the predictability of state subsidies.

(5) In order to improve benefits, funding of SLTCI benefits should be raised (up to full coverage) at least in line with the increase in care costs, thus easing the burden on benefit recipients and reducing their dependency on social welfare grants.

The problems and challenges of financing the health sector in general, and SHI in particular, have been analysed and debated intensely for years. Nevertheless, they continue to give rise to major controversies. The Social Democratic Party, the Green Party and the Left Party, as well as the trade unions and social welfare associations, are calling for the current SHI-PHI-divide to be replaced by a unitary, solidarity-based people's health insurance scheme, to which conservatives and liberals are strongly opposed. The Social Democrats pushed for it in the coalition negotiations for the current legislative period, but the CDU and CSU refused to accept it. Nor is there any indication that the core characteristics of the contributions assessment system (upper income limit and restriction to gross wages) are about to be amended in the years ahead. Hence, major changes to the insurance and financing system are not to be expected before 2021 when the current legislative period will come to an end.

There are some indications that SLTCI is more likely to undergo major changes in financing than SHI. Most recently, in January 2019, Federal Health Minister Jens Spahn (CDU) stated that a debate on the basic principles of SLTCI was necessary as contribution rates as well as co-payments are predicted to rise. Moreover, a CSU health policy expert proposed a cap on the deductibles paid by SLTCI benefit recipients. Nevertheless, legislation on these issues is not likely in the foreseeable future.

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Annex

Table A1. Replacement rate of SPI %, Germany 2005-2016

Year	Pension level of SPI
2005	52.6
2006	52.2
2007	51.3
2008	50.5
2009	52.0
2010	51.6
2011	50.1
2012	49.4
2013	48.9
2014	48.1
2015	47.7
2016	48.0

Source: Deutsche Rentenversicherung Bund 2018, p. 258.

Table A2. Contribution rate of SPI %, Germany 2005-2016

Year	Contribution rate of SPI
2005	19.5
2006	19.5
2007	19.9
2008	19.9
2009	19.9
2010	19.9
2011	19.9
2012	19.6
2013	18.9
2014	18.9
2015	18.7
2016	18.7

Source: Deutsche Rentenversicherung Bund 2018, p. 258.

Table A3. Revenues and expenditure of the statutory health insurance system, Germany 2005-2016

Expenditure in billion € per insured person in €	2005	2010	2015	2016	Change 2005-2016 %
Expenditure total	143.8	176.0	213.7	222.7	+54.9
per insured person	2,042	2,521	3,005	3,142	+53.9
Benefit expenditure, of which	134.9	165.0	202.5	210.4	+56.0
- Medical treatment	22.0	27.1	34.9	36.5	+65.9
per insured person	311	389	494	511	+64.3
- Dental treatment	7.5	8.3	10.2	10.5	+40.0
per insured person	106	119	144	149	+40.6
- Dental prostheses	2.4	3.1	3.3	3.3	+37.5
per insured person	35	45	46	46	+31.4
- Pharmaceuticals	24.7	30.2	34.8	36.3	+47.0
per insured person	350	432	493	508	+45.1
- Non-medicinal remedies/aid	8.9	10.6	13.7	14.3	+60.7
per insured person	126	152	194	200	+58.7
- Hospital treatment	48.5	58.1	70.3	73.0	+50.5
per insured person	688	833	993	1,022	+48.5
- Sickness benefit	5,9	7.8	11.2	11.7	+98.3
per insured person	83	112	159	164	+97.6
- Travel costs	2.8	3.6	5.0	5.2	+85.7
per insured person	40	52	70	73	+82.5
- Prophylactic examination/rehabilitation	2.4	2.4	2.6	2.7	+12.5
per insured person	34	34	37	38	+11.8
- Maternity, pregnancy	1.3	1.0	1.3	1.4	+7.7
per insured person	19	15	18	19	0
- Home care	2.0	3.2	5.3	5.7	+185.0
per insured person	28	46	74	79	+182.1
Revenues total	145.7	175.6	212.6	224.4	+74.8
Federal subsidies	2.5	15.7	11.5	14.0	+460.0
Financial surpluses or deficits	1.9	-0.4	-1.1	1.7	-11.7

Source: Bundesministerium für Gesundheit 2009 and 2018.

Table A4. Annual surpluses and deficits and total expenditure on statutory health insurance and statutory long-term care insurance, Germany 2005-2016

Year	Statutory health insurance		Statutory long-term care insurance	
	Surplus/(Deficit) € billion	Total expenditure € billion	Surplus/(Deficit) € billion	Total expenditure € billion
2005	1.93	143.81	(0.36)	17.86
2006	1.93	148.00	0.45	18.03
2007	2.13	153.93	(0.32)	18.34
2008	1.58	160.94	0.63	19.12
2009	1.42	170.78	0.99	20.33
2010	(0.39)	175.99	0.34	21.45
2011	4.16	179.61	0.31	21.93
2012	5.44	184.25	0.10	22.94
2013	1,36	194.49	0.63	24.33
2014	(1.30)	205.54	0.46	25.45
2015	(1.11)	213.67	1.68	29.01
2016	1.62	222.73	1.03	31.00

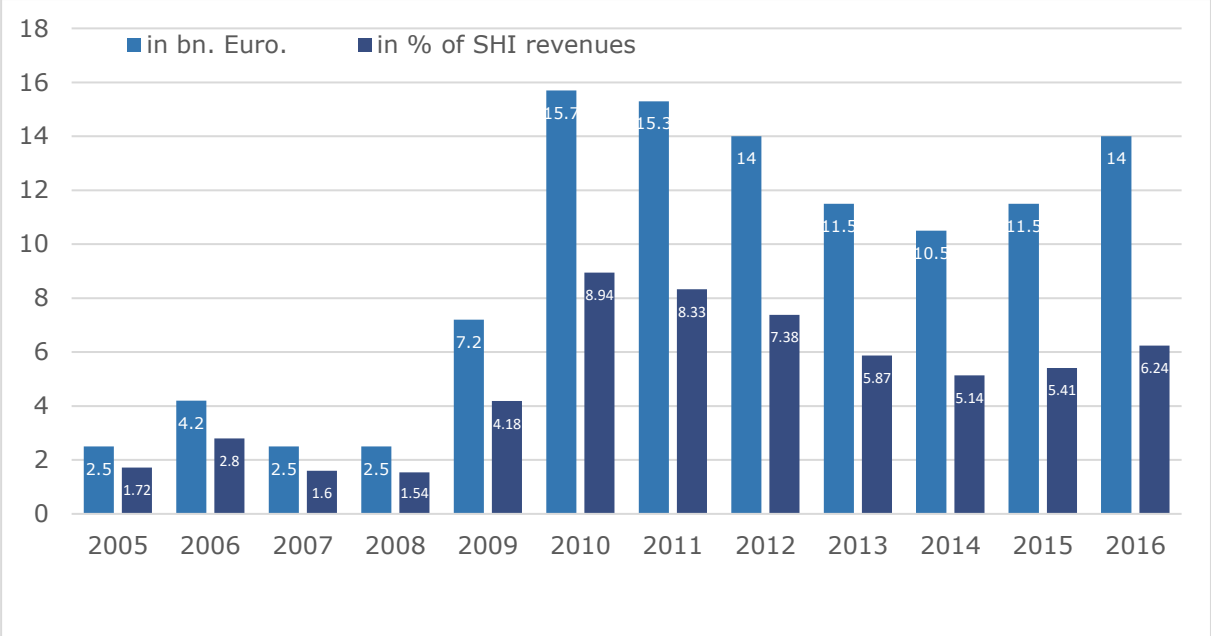
Source: Bundesministerium für Gesundheit 2018b and 2018d.

Table A5. Basic data on financing of statutory insurance branches, Germany 2016

Branch	Contribution rate %	Employer share %	Employee share %	Lower limit € per year***	Upper limit € per year***
Statutory pensions insurance	18.7	9.35	9.35	€5,400	€74,400 (WGL) €64,800 (EGL)
Statutory health insurance*	15.7*	7.3	8.4*	€5,400	€50,850 (AL)
Statutory unemployment insurance	3.0	1.5	1.5	€5,400	€74,400 (WGL) € 64,800 (EGL)
Statutory long-term care insurance**	2.35 2.60**	1.175 1.3**	1.175 1.3**	€5,400	€50,850 (AL)

WGL = West German Länder
EGL = East German Länder
AL = All Länder
** Including average*
*** For childless persons*
**** For contribution assessment*
Source: Authors' table.

Figure A1. Federal state subsidies to statutory health insurance, € billion and % SHI revenues, Germany 2005-2016



Source: Bundesministerium für Gesundheit 2018a.

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